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Research paper should be written in English and French as it is grammatical necessary to consider the clarity and integrity of the text and avoid, spelling and linguistic errors.

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Any research or article that does not meet the conditions will not be taken into consideration and will not be published regardless of its scientific value.

Allocution du rédacteur en chef de la revue

Dr. Ali Latreche /Maître de conférences "A" à l'Université de Tlemcen (Algerie)

Les États puissants de la communauté internationale déclarent souvent leur autorité sur le droit international humanitaire comme s'il s'agissait d'un roman qu'ils avaient écrit.

Hé, c'est la vérité...! Les forts écrivent souvent l'histoire une fois la guerre terminée et fixent les règles juridiques qui s'appliquent aux autres... ! C'est la réalité qui s'est produite après la fin de la Seconde Guerre mondiale, lorsque des pays puissants ont écrit sur l'échiquier le droit international pour la sécurité et la paix et le droit international humanitaire... ! Où la plupart des pays du monde ne sont que des pions à sacrifier sur la première rangée de l'échiquier, tandis que les pièces de valeur sont protégées sur la dernière rangée... ! C'est la douloureuse réalité que nous ne ressentons plus seulement, mais que nous sommes venus voir et vivre dans la communauté internationale, où les États faibles n'ont pas de souveraineté et les peuples colonisés n'ont pas le droit à l'autodétermination... ! Quant à la laideur et à l'horreur de la torture et du meurtre d'enfants, de femmes et de personnes âgées, ainsi que de la destruction des hôpitaux, ce n'est qu'un chapitre caché de cette sale histoire écrite sur l'échiquier.

Le problème de l'injustice au sein de la communauté internationale est lié au problème de l'anarchie dans la société elle-même, car la sécurité et la paix ne pourront être obtenues que par une véritable recodification du droit international et du droit international humanitaire avec la participation de tous les membres de la communauté internationale pour établir la phrase la plus importante en droit : « Le droit est avant tout et régit toutes les personnes de la communauté internationale. » « Sans exception »

Speech by the Editor-in-Chief of the Journal

Dr. Ali Latreche / Lecturer "A" at the University of Tlemcen (Algeria)

Powerful states in the international community often declare their authority over international humanitarian law as if it were a novel they had written.

Hey, it's the truth...! The strong often write history once the war is over and set the legal rules that apply to others...! This is the reality that occurred after the end of the Second World War, when powerful countries wrote on the board international law for security and peace and international humanitarian law...! Where most countries in the world are just pawns to be sacrificed on the first row of the chessboard, while the valuable pieces are protected on the last row...! This is the painful reality that we no longer only feel, but have come to see and experience in the international community, where weak states have no sovereignty and colonized peoples have no right to self-determination ...! As for the ugliness and horror of the torture and murder of children, women and the elderly, as well as the destruction of hospitals, this is only a hidden chapter of this dirty story written on the chessboard.

The problem of injustice within the international community is linked to the problem of anarchy in society itself, because security and peace can only be achieved through a genuine recodification of international law and international humanitarian law. with the participation of all members of the international community to establish the most important sentence in law: “ Law is above all and governs all persons in the international community. “ «Without exception »

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The Role of News Channels in Setting the Agenda Towards Political Issues: A Study of Data Visualization for CNN on Facebook

***Dr. Marian Tadrous, Ph.D. in Strategic Media -School of
Communication and Arts, Liberty University***

Abstract

Setting an agenda for the audience is one of the essential functions that news channels perform in society. Agenda theory asserts a close relationship between how the media presents topics and issues and the order of these issues to the public. The media prioritizes the news by giving particular importance to these issues and making them a priority for the public's concerns. The current paper discussed the analysis of political issues presented by the CNN news channel to determine the order of the media and (public agenda). The research analyzed all political news published on CNN's Facebook page for a week and conducted a field study on a convenience sampling of 500 individuals who follow the news channel on Facebook. The study found a statistically significant relationship between CNN's follow-up and the degree of interest in political issues. It also found a correlation between setting the political issues on CNN and their arrangement among the respondents.

Keywords: news channels, agenda theory, data visualization

Introduction

Agenda research studied how the public builds its perceptions about a particular issue. There are still questions about the role of the media in making the public's agenda, especially after the emergence of social media platforms. The researchers indicated the need for more tests of the agenda hypotheses and their applications in digital media. They added some variables, including selective exposure, personal connection to the issue, and the media's credibility. Some media literature has found that setting the agenda is reciprocal between traditional and new media, affecting the other. It becomes difficult to separate them to see who starts setting the agenda; the audience for digital media is diverse and individual. This makes measuring the agenda challenging in the new media platforms, which have recently become a leader in arranging the audience's agenda, as in their leadership of the Arab Spring revolutions in the Middle East, from which traditional media later derived their media agenda. Teter (2018) found that the role of the media will increase with the rise of broadcasting channels on the same topics, thus affecting the public agenda. The current paper seeks to answer the main research question: What are the similarities and differences between CNN's media agenda and the public agenda on the Facebook page?

Problem Statement

Many studies emphasize the role of television channels in directing the public towards specific issues so that these issues become a priority for the public's attention. Then, setting the agenda for the people is one of the most prominent functions that the media performs in society. Over time, the media agenda becomes consistent with the public agenda. Therefore, the focus of news channels on a political issue gives this issue particular importance. It occupies an essential place in the order of public

priorities, as it motivates the audiences to discuss this issue and form attitudes towards it.

Considering the development of communication technology, it has become necessary to study the role of communication between people in arranging the agenda. "Although some studies have explored how mass and interpersonal communication interact in the agenda-setting process, the results are scattered" (Chung et al., 2021, p.1). So, the current research discusses how the priorities of political issues are formed in the public's minds when people integrate into media and interpersonal communication simultaneously, as in the case of interacting with political issues on social media. Also, it will study the arrangement of the political issues agenda for CNN on its official Facebook page and examine how people communicate and interact.

Significance of the Study

The importance of the study stems from several considerations:

First, the research is concerned with analyzing and prioritizing political issues based on the variable role of news channels and seeks to test the agenda theory in the digital media age.

Second, there is a lack of studies prioritizing political issues through news channels; therefore, this study complements previous studies in this field. Third, there is a lack of studies that deal with the integration of mass communication and interpersonal communication in the application of the hypotheses of the agenda theory. Fourth, studying the impact of interaction on Facebook on prioritizing political issues among the Public. Ritter (2020) recommended searching for new trends in agenda-setting research, especially after the Internet changed the process of publishing news to set the agenda to determine what is worthy of publication.

Purpose of the Study

This study aims to clarify some purposes related to content analysis study and others related to field study:

1. Analysis of the political issues published by CNN during the study period.
2. Analysis of the arrangement of the political issues agenda in CNN.
3. Identify how the public interacts with the political issues published on CNN and Facebook.
4. Identify the impact of the interaction between mass and personal communication in setting the agenda.
5. Recognize the impact of users' comments on prioritizing the issues through the amount and frequency of comments.
6. Identify how Facebook users are exposed to political news on CNN.
7. Monitoring the effects of exposure to CNN on setting the agenda of followers on Facebook.

Literature Review

Researchers are interested in studying the news sites, their speed in publishing news compared to printed newspapers, and their ability to influence public opinion. In contrast, others focus on agenda theory to compare theoretical assumptions between traditional and digital media. The new phase of media technology has contributed to conducting more research to test the hypotheses of the agenda theory in the era of digital communication and to know the impact of social media platforms on the arrangement of the media agenda and the public agenda. The literature review aims to discuss, analyze, and interpret research, identify gaps, and identify the most critical findings, suggestions, and recommendations.

News Sites Content Analysis

The researchers studied the news sites' content on the Internet to know the type of issues concerned with their publication frequency, the extent of public participation and attitudes towards issues, and how to interact with them. **Đorđević (2020)** examined the comment sections of news sites and used the analytical approach to study 939 comments. Hate speech has serious consequences that affect the socio-cognitive interaction among news commentators. This study applied to analyze readers' comments on news websites as a new style of writing that reflects the ideas that readers create when exposed to media content.

Engelmann et al. (2021) studied how several factors influence users' exposure to news (e.g., conflict and ruling elites) as well as some aspects of news (e.g., image, status, and recency). News users are interested in selecting headlines that contain prominent news items. Therefore, readers have the opportunity to form individual opinions on community issues, so newsrooms can keep track of articles that attract readers. Journalists' monitoring of audience preferences may lead to a (new) shift in news production and editing by moving from journalistic relevance to audience relevance **standards**. **Esau et al. (2017)** investigated the best ways to enhance discussion among online users by examining factors such as moderation, asynchronous discussion, topic identification, and availability of information. The authors compared different news platforms (Facebook news pages, news forums, news sites). They found that a news forum produces rational, serious discussions. Comments on news sites and Facebook also showed good interaction among readers. **Jangdal (2021)** examined the democratic contribution of political content and digital news materials and analyzed them to discuss priority topics. The results indicate that digital media performs several essential functions: increasing editorial coverage of political issues, providing a more

comprehensive range of resources, and facilitating forums for discussion.

Kim et al. (2016) studied the main features of the local news sites that can lead to the operationalization of news sites. The authors analyzed 137 cases, focusing on the positive effects of maintaining local news sites and their role in building local news networks. The authors also found that news sites are an excellent way to promote local journalism, as local institutions can collect and share information everywhere—Ksiazek (2018) aimed to study digital news readers looking for virtual conversations about web news. The study focused on the comment space (as a measure of news sharing), how well discussions are, how the story is formatted (multimedia features), and how journalists participate in news commenting platforms and regulatory comment policies. The study recommended encouraging news organizations to increase user interaction with information.

McInnis et al. (2021) studied the New York Times discussion platform. The results showed the role of intermediaries in activating online chatting. First, moderators carefully monitor the discussions on news sites of low-quality content and are interested in new topics in the comments. Second is the ability to review published news ("secondary censorship") by evaluating reports published within the news outlet. Third, moderators get to know the audience that regularly interacts **with the information.** **McInnis et al. (2020)** examined the role of data visualizations in online discussion. They found that out of 6,525 comments, only 2.4% were visualized in articles. Despite the lack of data visualization in the news, the paper provided examples of how users interact with data visualization. The authors collected and analyzed the news using text classification techniques (texts with data visualization or without). Also, the content of comments included words about correlation and comparisons between data.

Stroud and Duyn (2020) studied users' behavior on news sites to see how the media affects them. The authors found essential differences between users of news sites (time spent browsing the site, the depth of scrolling for news). The study revealed that online experiments and monitoring of users' performance could provide an accurate overall picture of actual behavior on news platforms. Vermeer et al. (2020) found that interest in entertainment news on news websites drives the public to pay attention to it, the same idea confirmed by the agenda theory. When the media arranges a specific agenda for issues and topics, the audience adopts the same agenda after a while. It was also found that consumers of news on websites enjoy the power to control information flow over the Internet. Zhang and Hingle (2017) analyzed image and video-rich media trends, social engagement via social media, ad display, and local content ads. They found that the number of videos and photos in the news increased exponentially. The videos also contributed to the spread of television news online. News sites have gradually moved readers' conversations and interactions from traditional commentary or discussion forums to social media.

The Agenda Setting Background

The idea of the role of journalism in setting the agenda is related to McCombs and Shaw (1972). They used the 1968 U.S. presidential election to examine the relationship between the priority of media issues and these issues in public (McCombs & Valenzuela, 2007). The media agenda is concerned with some issues. Second, this media agenda influences the formation of the public agenda. Finally, the public agenda interacts with policymakers (Littlejohn et al., 2017, p.160). The researchers investigated the influence of the media (the media agenda) on public opinion (the public agenda). The media force's public

opinion to focus on specific issues at the first level. The media repeatedly published the case at the second level to convince the public. The third level assumes that the media agenda moves to the public agenda (Teter, 2018).

The Agenda Theory in the Age of Digital Communication

Scholars of agenda theory studied the priorities of social media audiences to see the impact of mass communication and interpersonal communication on the audience's agenda. They examined how user feedback affects the importance of the perceived problem to determine whether user feedback increases or decreases agenda-setting effects. Billard (2019) investigated the relationship between the setting of the traditional media agenda and the digital news agenda on online news sites. The results indicated that online digital news sources build the audience's agenda in contemporary digital media. Digital coverage in news platforms has also led to changes in traditional press coverage on some issues, while press coverage has contributed to news placements' coverage of other topics.

Chris (2021) explored how audiences "integrate" their news agenda from various sources. The author focused on the most popular issues in American society: government, politicians, health care, and immigration. The results found that audiences with different ideologies and ideas have identical agendas. Also, there was a similarity between the media's agendas from various resources, except for economic issues. Harder et al. (2017) analyzed the "news story" content on media platforms. They found that news websites and Twitter are prominent in setting the agenda.

In contrast, traditional media (newspapers) have fewer opportunities to publish because they are less quick to cover news than news websites. Therefore, their ability to set the agenda is

limited. The results indicated that speed (or immediacy) contributes to setting an agenda on online platforms. Jennings and Saunders (2019) found that demonstrating the power of protest is shaped by setting an agenda at the right time. Media coverage is necessary to spread awareness of the political and social issues that protest movements support. This explains why news websites continue to cover the protests and put them on the agenda to understand the opportunities for social activities and influence the decision-making agenda in society. Jiang et al. (2021) validated the Network Agenda Setting (NAS) model in diverse social contexts. The results found that there is an impact of NAS on the public's agendas. There are significant and positive correlations between coverage of news websites and public agenda networks. The study contributed to setting the third-level agenda (the impact of the media agenda on the audience) by analyzing the context of the new NAS model.

McWhorter (2020) found that audiences combine different media agendas to suit their needs and achieve their interaction through group discussion. This process is called "agenda melding." Incorporating the agenda includes the function of "need for direction" in a social context to discuss issues with others. There is a symbiotic relationship between traditional and social media platforms that allows each other to influence their news agendas. Stern et al. (2020) studied the role of agenda theory in analyzing the influence of various news sources on each other and how this affects the increase in the amount of information presented to the public. The results revealed the characteristics of publishing news on the Internet and achieving media interaction between the news platform and the audience by the assumptions of the agenda theory.

Van den et al. (2019) examined the agenda-mediating relationship between traditional newspapers and social media

platforms on political reform issues. The results found that the predictions of the agenda theory can be confirmed. Traditional newspapers and social media platforms positively influence each other in the level of interest in political issues. Also, social media is highly effective when setting the agenda in public discussions; However, traditional media is (still) the most effective in setting the agenda. Valenzuela et al. (2017) supposed that the media's agenda converges with news platforms' agendas. However, the rise of social media platforms forces this expectation to be reconsidered. There is a positive effect between the journalistic agendas of traditional media and the Twitter platform. The authors provided new insight into the agenda-setting function of social media platforms among news industry professionals.

Data Visualization on Facebook

Data has a significant impact on the design of a visualization approach. Data describes events versus situations, can be seen as markers of situational changes, and characterizes continuity between events (Ward et al., 2015). The current study depends on data collection, analysis, and interpretation through statistical graphics displayed in the research results. Frequencies and correlation coefficients between variables were calculated. All these data are represented through computer-based visualization systems to help people perform tasks more effectively (Munzner, 2014). Therefore, the researchers considered that the process of converting texts into graphs and figures is a crucial stage in the transformation and simplification of information by giving it a digital form, as the technique of digitizing and analyzing materials is easier for texts and cultural studies that move from text to images (Bowen et al., 2013). Reviewing the Literature found that research on the reception of data visualization is scarce, especially concerning interactive and dynamic forms of data visualization in new media (Engebretsen, 2020).

Allen et al. (2019) described a data visualization approach that helps understand and analyze problems and provides complete statistical information. There is a growing need for more statistically accurate approaches to data visualization, so many researchers have advocated using data visualization tools that communicate raw data and statistical relationships between variables transparently. Engebretsen (2020) analyzed how university students interact with data visualizations in digital media to investigate how data visualizations are read and interpreted, including visual, interactive, and animated metaphors. The results found that the time required to display multimedia information was significantly less for video viewers than for readers of static news articles because readable information is more complex than visual information.

Kim et al. (2018) found that recent advances in video usage technology have helped accumulate large amounts of digital media data. The study proposed a unified framework for recording and visualizing media data. Existing media production relies on videos from the primary camera and various supporting data sources (images, light detection, cloud points, witness video camera, HDR imaging, and depth images). Radhakrishnan and Radhakrishnan (2019) focused on understanding the Facebook usage trends of people of different age groups. Critical steps in the analysis included (a) preprocessing the data into a format suitable for easy analysis and (b) visualizing the patterns observed in the data set. Standard visualization techniques include bar graphs and graphs (distribution charts). The preprocessing stage that occurs before the visualization stage is a challenge. Riffe et al. (2021) discussed what makes data helpful for visualization and why it is essential to pursue visualization. Data visualization challenges include age group effects or life path pathways. Innovative approaches have been proposed for visualizing complex data structures within and

outside the discipline. Therefore, data visualizations presented in scientific research are often related to the latest technology.

Opportunities or Gaps in the Literature

Literature of news sites focused on analyzing the number of comments and user participation. They ignored the analysis of news content on websites. The agenda research also focused on the issue of elections as a political issue and ignored other political issues such as international political conflicts, political legislation, and decisions of the White House. In contrast, data visualization research focused on the quality of statistical methods used in graphic representation and ignored the application of data visualization in social media content analysis research and social platform user research, which the current study examines.

The research results highlight the intensification of the efforts of employees of news sites to produce high-quality content or attractive designs to influence users' loyalty. Finally, Literature has revealed that digital news is a part of the public sphere in which political interests play a decisive role. Therefore, it is recommended that future work include testing of different digital platforms, such as mobile phones, computers, and tablets.

Theoretical Contributions to the Current Study

The literature reviews contributed to defining the study's theoretical framework, formulating research questions, and designing a content analysis form and field survey. They raised an important question: Is the impact of new media on the public weaker or stronger? Studies have found that variables affect the agenda theory, including personal communication through users' comments, educational level, economic level, and the media's credibility.

There is compatibility between the media agenda and the audience's agenda on social media. These variables were used in applying the field study to a sample audience who follows the CNN news website on Facebook. The selective exposure to news contributed

to arranging the public's agenda; Literature added this new variable. The media selects certain information to make it on the public interest list. The audience also chooses the news corresponding to its interests to set its agenda. This variable will be studied in the current study when the audience is asked about the type of content, they follow on the CNN news website on Facebook.

Research Questions

The study seeks to answer a central question that forms the research problem: "What is the role of CNN in prioritizing political issues on its official Facebook page? From this central research question, several sub-questions are derived.

First: The questions of the analytical study:

RQ1: What political issues does CNN present on its official Facebook page?

RQ2: To what extent are the political articles audio or visual media?

RQ3: To what extent are there links within the political news on the CNN website?

RQ4: What is the order of the political issues agenda in the study sample articles?

Second: Field study questions:

RQ1: Learn about the exposure of Facebook users to political news on CNN

RQ2: What are the reasons for viewing the official website of CNN on Facebook?

RQ3: What is the prioritization of political issues for the CNN audience on Facebook?

RQ4: How does the interaction between mass and personal communication affect setting the agenda?

Hypothesis

H1. There is a statistically significant correlation between the rate of exposure to the CNN news site and the agenda of political issues among CNN followers on Facebook.

H2. There is a statistically significant correlation between setting the political issues on CNN and the public's prioritization of political topics.

H3. There is a statistically significant relationship between the demographic factors (gender, age, educational level) and the interest in political issues.

Research Method

Research Design

This study uses quantitative methods in the content analysis of CNN's page. Also, there is a survey of a sample following CNN on Facebook to explore public agenda-setting.

Participants and Sampling

The study relies on a sample survey approach due to the difficulty of conducting a comprehensive survey of either the news content on CNN or the field survey of the CNN audience on Facebook. There are two ways of data collection tools:

Content analysis of political issues on the CNN website on Facebook to collect, analyze, and interpret the political issue agenda. Content analysis is a set of procedures to transfer discrete information into a structured format that allows analysts to make conclusions.

Questionnaire: The questionnaire tool will collect data from 500 participants who follow CNN on Facebook.

The Study Samples

First: The sample of the analytical study:

Selection of the CNN website on Facebook because it has 39,123,208 followers (CNN, 2022). So, it represents the highest number of followers among other News websites on Facebook. The analytical study for three months. Second: Survey study sample: the

questionnaire was applied to a convenience sample of 500 participants who follow the CNN official page on Facebook.

Data Collection Tools

The collection of the scientific material is based on a content analysis tool for a sample of political issues for CNN on Facebook, and the questionnaire tool for a sample of CNN audience on Facebook.

Results

First: The Analytical Study

This section discusses the analytical study results of a sample of political news published on the CNN page on Facebook for three months from 3/01/2023 to 5/30/2023 to know the order of CNN's media agenda during that period and which political issues came the most repeatedly in publication. The total number of political issues was six published by CNN on its official Facebook page, grouped in the following table.

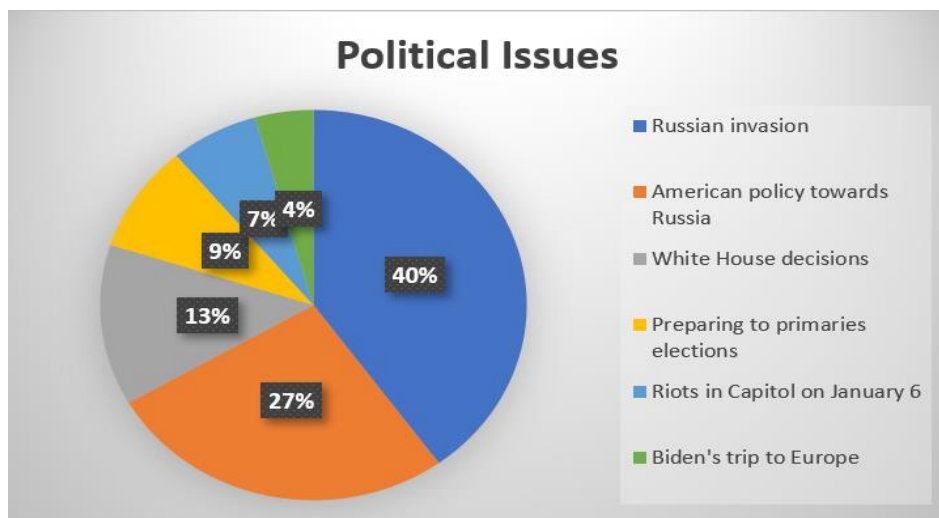
Table (1) Political Topic Category

Political Topic Category	Frequencies	%	Order
Russian invasion	180	0.4	1
American policy towards Russia	120	0.27	2
White House decisions	60	0.13	3
Preparing for primaries elections	40	0.09	4
Riots in Capitol on January 6	30	0.07	5
Biden's trip to Europe	20	0.04	6
Total	450	100	

The previous table shows that the most political issues in the content analysis sample are the issue of the "Russian invasion of

Ukraine," which came in 0.4 % of the total political issues published on the CNN page on Facebook. Followed by "The U.S. policy towards Russia" with 0.27 %, and in the third order "White House decisions" regarding immigration, hate crimes, taxes, and environmental protection laws with 0.13%. The political news about "Biden's visit to Europe" after the outbreak of the war in Ukraine fell to a small percentage of 0.04% because this visit just took a few days. The global interest in the "Russian invasion of Ukraine" and its repercussions on the world's people politically and economically made CNN focus on publishing this issue compared to other political issues.

Figure (1) Political Topic Category



Note: The distribution of political issues according to their frequency

2-D Pie Data visualization illustrates the parts of the whole and clarifies the numbers in their relationships with the total, which is always 100%. The results can be easily understood by dividing the circle into parts. The most significant part, 40%, is CNN's coverage of the news of "The Russian-Ukrainian war", followed by the orange side of "The U.S. policy towards Russia" after announcing

political and economic sanctions on it by 27%, then decisions. The White House is on the gray side with 13%. It is a simplified graphic illustrating the order of the most frequent news agenda on CNN on Facebook

Table (2) Political Sources Category

Political Sources Category	Frequencies	%
Same media institution	300	66.7
Reporter	0	0
News agencies	0	0
The author of the article	150	33.3
Without source	0	0
Total	450	100

The previous table shows the sources of political news. The news category from "the same media institution" came first with 66.7%. The "article author" category is followed in the second order, with a rate of 33.3%. In contrast, the analytical sample did not represent the other categories (correspondent, news agencies, without a source). This means that CNN relies on its news and reports on employees of its media organization without resorting to other sources. This result may differ if the period of the analytical study was on a larger sample of political news.

Figure (2) Political News Sources

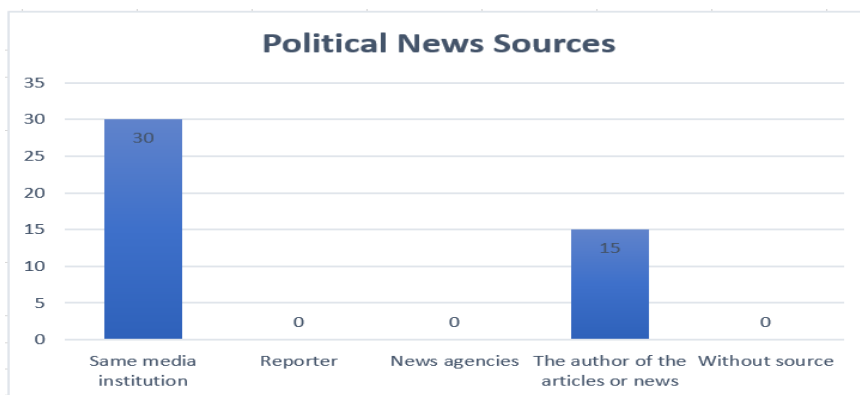
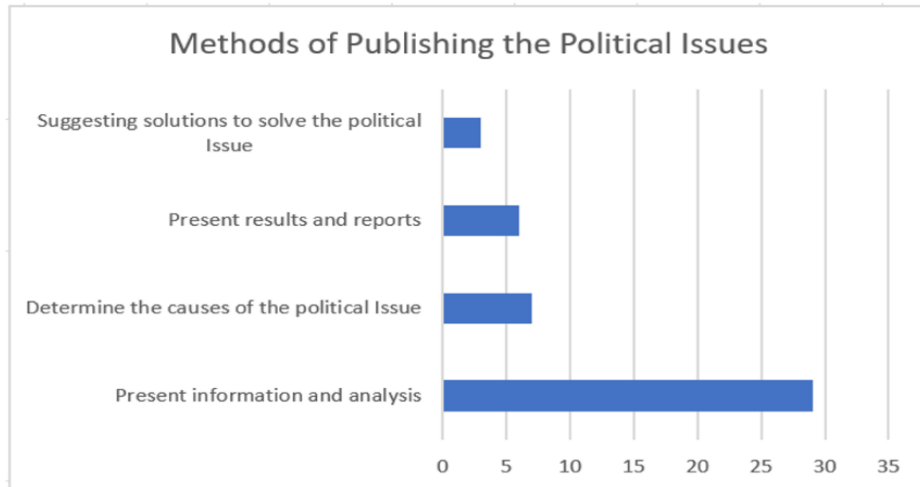


Table (3) Methods used in publishing political issues

Techniques used in posting political issues	Frequencies	%
Present information and analysis	290	64.4
Determine the causes of the political issue	70	15.6
Present results and reports	60	13.3
Suggesting solutions to solve the political issue	30	0.07
Total	450	100

The previous table shows the techniques used by CNN in publishing political news. CNN was primarily concerned with "presenting information in the news and analyzing it," with a percentage of 64.4%. It provided information on the size of the losses incurred in Ukraine and the suffering inflicted on civilians there. In the second order, "determine the causes of the political issue," By explaining the motives of the Russian war, this category comprised 15.6%. In the third order, "providing results and reports" by 13.3%, where the percentage of this category decreased. So, most of the content focuses on reports that analyze the current situation and write about mere perceptions or expectations about the war. Finally, the category of "proposing solutions to solve political issues" has declined.

Figure (3) Techniques used in publishing political issues



Techniques for publishing political news have been illustrated using a clustered bar chart compares values across a few categories and is used when there are differences between the categories; the graph shows the most popular category in the sample, "information and analysis," and the last category, "suggests solutions to political problems."

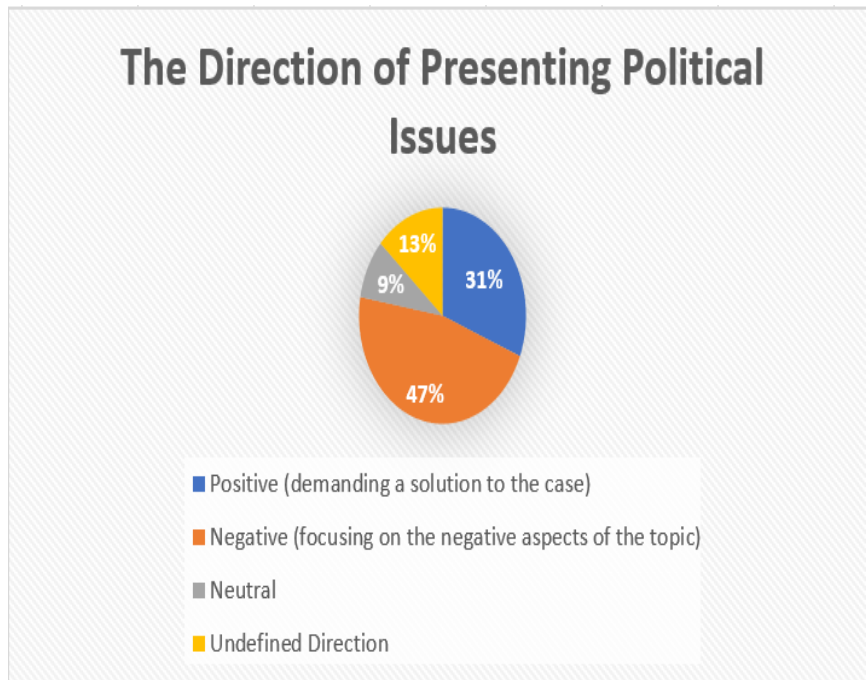
Table (4) The Direction of Presenting Political Issues

The Direction of presenting political issues	Frequencies	%
Positive (demanding a solution to the case)	140	0.31
Negative (focusing on the negative aspects of the topic)	210	0.47
Neutral	40	0.09
Undefined Direction	60	0.13
Total	450	100

The previous table shows the trend of CNN in presenting political issues. The negative trend represented in focusing on the negative aspects of the subject came in the first order with a percentage of 0.47%. In contrast, the positive trend supported the "White House decisions" and "America's policy towards Russia" and demanded more sanctions on Russia to end the war with a percentage of 0.31%. And in the third order came the category of "undefined direction" by a small percentage. In contrast, the "neutral direction" category fell to the last order by 0.09%. This is due to CNN's mixing of news and reports. The news was linked to the analysis element, which moved it away from neutrality in raising the political issue and pushed it to align more with CNN's political orientations, locally or globally.

This result differs from the study of Abdel Muti (2016), who found that the positive trend in providing news came in the first order, followed by the unspecified direction in the second order, which may be due to the difference in the quality of news between the two studies. Economic news may need a more positive trend in writing about it to suggest solutions to solve economic crises. At the same time, the current research focuses on political issues. It is impossible to focus on positive aspects, especially during the war that caused various countries' crises.

Figure (4) The Direction of Presenting Political Issues



A Pie chart is used to show the proportions of a whole; use it to show numbers that relate to a larger sum and always equal 100%. The biggest part is negative, with the orange color at 47%, and the second is positive at 31%.

Table (5) The Form of Political Issues

The Form of Political Issues	Frequencies	%
News	80	0.18
Report	250	0.55
Investigation	0	0
Article and analysis	120	0.27
Total	450	100

The previous table shows the forms of political issues. The form of "reports" came first with a percentage of 0.55%, followed by

"article and analysis" with a ratio of 0.27%. "The news" came in third place with a low rate of 0.18%, which means that CNN focused on the form of reports in writing news to add the opinions and attitudes of the political channel; this explains the reason for its departure from neutrality in the news sample under study. It was also noted that the news site did not publish any press investigation during the study sample period. This result differs from the result of Abdel Muti (2016), who found that the "news category" came first. Then, in the "article category" in the second order, the journalistic forms differ from one news site to another according to their political orientation in terms of their focus on news or reports.

Figure (5) The Form of Political Issues

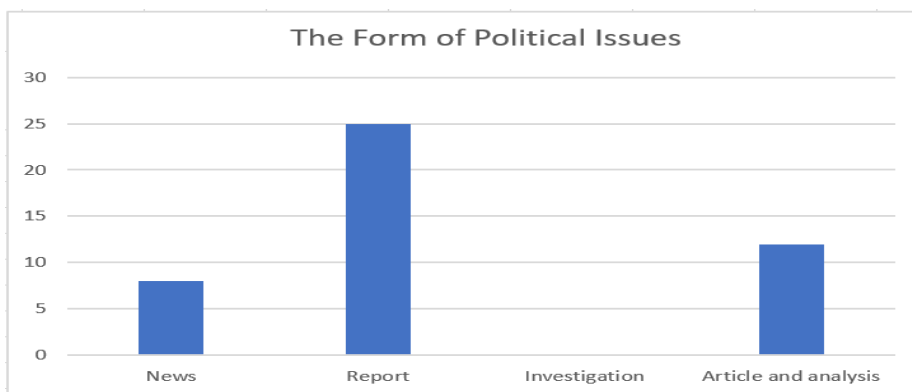
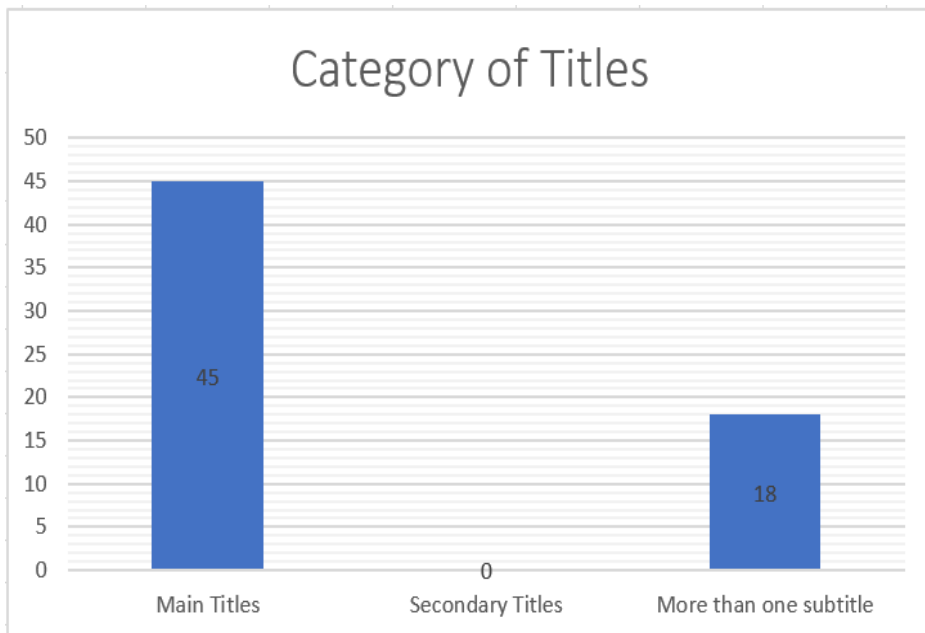


Table (6) News Features

Category of Titles	Frequencies	%
Main Titles	450	0.71
Secondary Titles	0	0
More than one subtitle	180	0.29
Total	630	100

The previous table shows that all news included headlines" main titles" by 0.71%, followed by "using more than one subtitle" by 0.29%. The news had many sub-headings to provide historical background on the political issue or explain some of its dimensions and details. Also, the news did not include "secondary titles," perhaps due to the difference between website news and printed newspapers in which "secondary titles" are allowed. This result is consistent with Abdel Muti (2016), who found that news headlines came in the first order. In contrast, the current study results differed concerning the secondary news category, which came in second order in the study of Abdel Muti, while this category was not represented in the current study sample.

Figure (6) Category of Titles

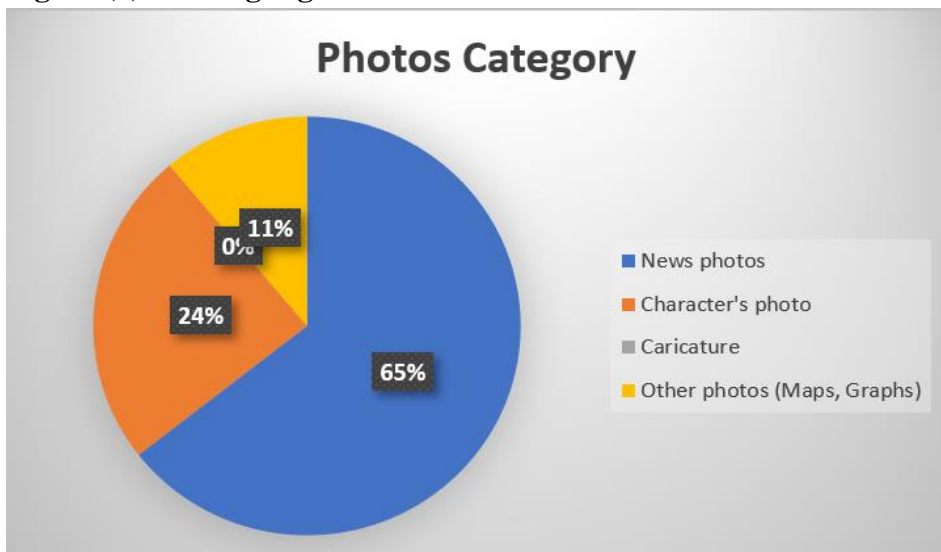


The previous figure shows the difference between headlines and subheadings in the new content.

Table (7) News Features

Photo Category	Frequencies	%
News photos	290	0.65
Character's photo	110	0.24
Caricature	0	0
Other photos (Maps, Graphs)	50	0.11
Total	450	100

The previous table shows the category of "news photos" published about news events, which came in the first order with a rate of 0.65%, as most of the photos included the events of war and destruction in Ukraine. In comparison, personal photos came in second with 0.24%. This category was associated with pictures of political figures such as Biden, European Union leaders, Putin and Zelensky. In the third order, "the pictures of maps and graphs" about the cities Russia controlled in the war by 0.11%. Also, the current study did not witness any representation of caricatures in the news published on CNN. This means that websites are not interested in caricatures compared to paper newspapers. This result agrees with Abdel Muti (2016) that news photos came first, followed by personal pictures of political leaders in the second order.

Figure (7) The Highlight of the News Site

The previous figure shows the large area occupied by blue "news photos," representing 65% of the other categories, followed by "personal photos" in orange with 24%.

Table (8) Multimedia Category

Multimedia Category	Frequencies	%
Texts	450	0.42
Photo	300	0.28
Audio recordings	0	0
Videos	280	0.26
Charts	50	0.05
Total	1080	100

The previous table shows that all political news in the study sample contained texts, while the proportion of images, videos, and geometric shapes varied from one report to another. The category of pictures within the news came in at 0.28%, followed by the video category at 0.26%, then geometric shapes with a small percentage of 0.05%; this means that the news sample of the study did not focus on visualizing the data in its coverage of political

news. These results support the finding of Ware (2018) that targeted and concise messages related to video news content should convey the main points of a news story and provide readers with information quickly.

Zhang and Hingle (2017) also found that the number of photos and videos has increased significantly on online T.V. news sites due to their ability to disseminate news quickly. This explains why CNN uses videos and pictures in political news content.

Figure (8) Multimedia Category

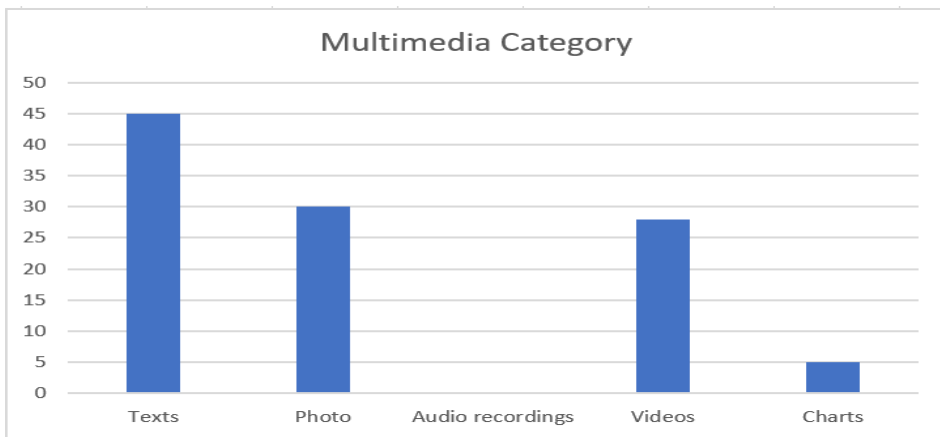
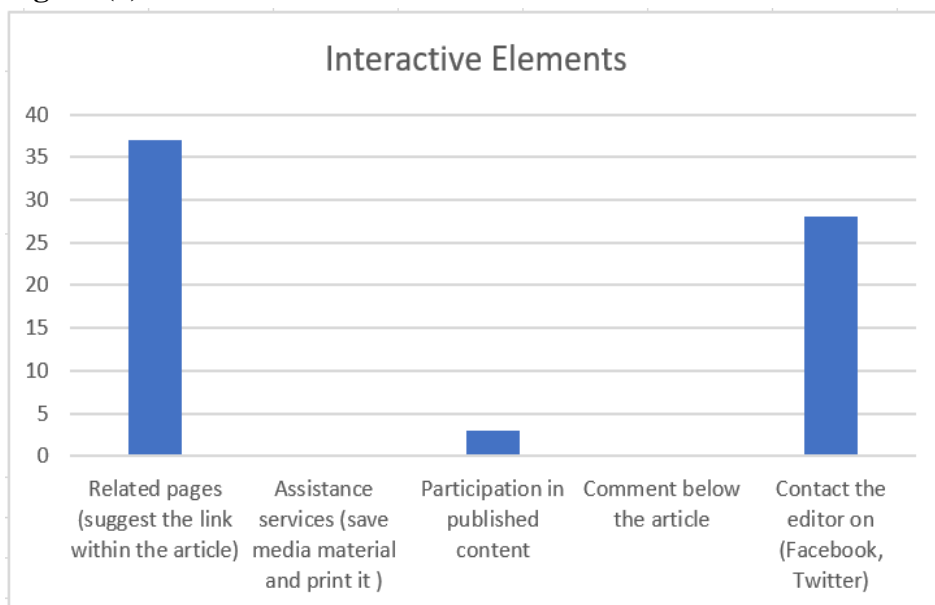


Table (9) Interactive Elements Category

Interactive Elements Category	F	%
Related pages (suggest the link of associated pages within the article)	370	0.54
Assistance services (save media material and print it or send it to a friend)	0	0
Participation in published content	30	0.04
Comment below the article	0	0
Contact the editor on (Facebook, Twitter)	280	0.41
Total	680	100

The previous table shows that the category of " related pages " is the most frequent interaction with the audience at 0.54%, followed by the category of contact with the editor at 0.04%, where most news reports provide this service to communicate with readers and obtain feedback. While "participation in published content" came by a small percentage of 0.04%, this may be due to CNN's allocation of this service through Facebook only and not through the news site. The news of the study sample did not contain the benefits of saving or printing topics and commenting on them. As a result of the development of mass communication, news sites need to use more than one method to interact with the audience. Ware (2018) recommended making social sharing tools available online, with the need to design automated social sharing tools on news sites to gain new readers and maintain followers.

Figure (9) Interactive Elements



The previous figure shows the high percentage of links within the pages and communication with the editor compared to other

categories. This means CNN needs to activate other interaction elements with users to attract more visitors to the news site.

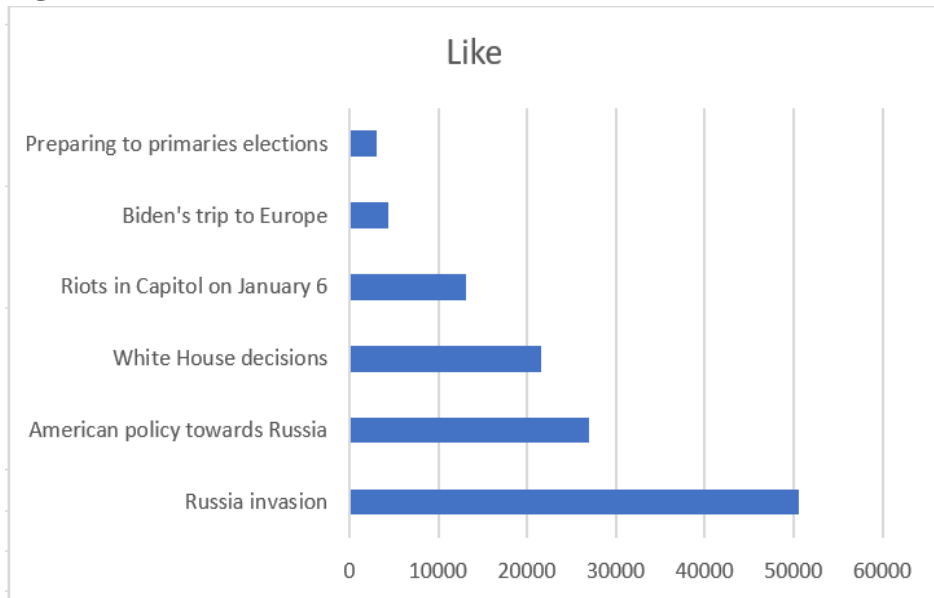
Table (10) Interactive With the Political Issue

The Political Issue	Like		Comments		Share	
	F	%	F	%	F	%
Russian invasion	50.631	0.42	16.949	0.40	9.833	0.80
American policy towards Russia	26.902	0.22	14.255	0.33	1.644	0.13
White House decisions	21.520	0.18	5210	0.12	414	0.03
Riots in Capitol on January 6	13.164	0.11	2.942	0.07	198	0.016
Biden's trip to Europe	4400	0.37	1656	0.39	104	0.008
Preparing for primaries elections	3049	0.03	1828	0.04	59	0.004
Total	119.666	100	42.840	100	12.252	100

The previous table shows the order of the CNN news agenda, which was homogeneous with the public agenda in general concerning the level of public participation and interaction with the news, where the most frequently published news was the same as the news that received the most comments and shares from the audience. This result is consistent with Boukes (2019), who found that the media agenda is compatible with the political and public agendas in the media age concerning the issue of elections. Also, Harder et al. (2017) found that news websites have a tremendous

ability to set the agenda for the public due to their speed in publishing news compared to traditional media. The news of the Russian invasion came first in the likes, comments, and shares, followed by the news of the U.S. policy towards Russia, which also gained the public's attention after repeatedly publishing it on the news site. On the other hand, public participation rates about "Biden's trip" and "preparing for elections" decreased due to low publications. This made the public feel that it was less important than the issues that CNN focused on publishing, confirming the agenda theory's hypotheses.

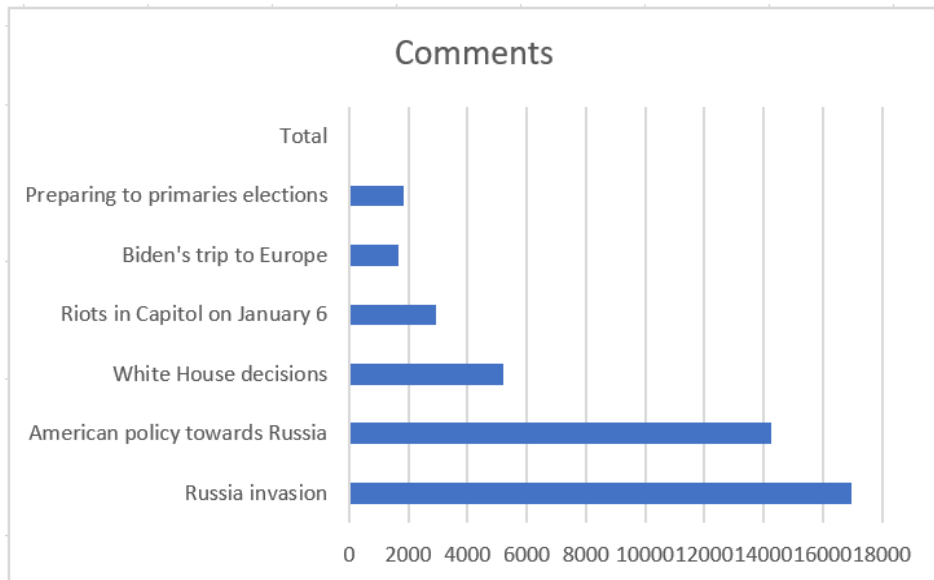
Figure (10) The Number of Likes on Facebook



The previous chart shows the importance of issues to the public and their admiration for the news content. The news of the Russian invasion of Ukraine came to the fore in the media agenda of CNN, followed in the following position by the trends of U.S. policy towards Russia. The increased number of likes may be due to this news repetition, which made users realize it was essential and

increased their interaction. This confirms the hypotheses of the agenda theory and coincides with the research results that clarified the reasons for selective exposure to specific news on sites. Engelmann et al. (2021) found that users read all headlines first and then pay more selective attention to headlines that contain topics related to their interests. This explains why "likes" increased among the participants on Facebook who followed the news of the "Russian invasion of Ukraine," which directly affected their lives through the rise in oil and food prices.

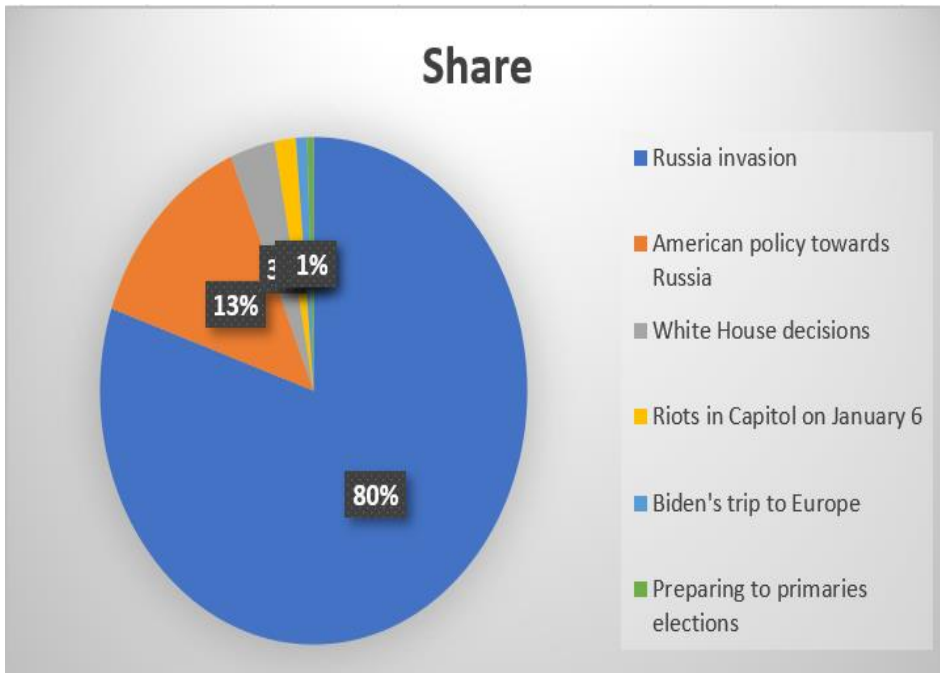
Figure (11) The Number of Comments on Facebook



The previous figure shows that the most frequent comments came on the issue of the "Russian invasion of Ukraine," followed by "the U.S. policy towards Russia" and then "the decisions of the White House." This is the same order as the media agenda for the CNN news site. There is homogeneity between the media and public agendas regarding users' comments on Facebook. McInnis et al.

(2021) point to the importance of Facebook comments, which can help journalists prepare reports from the "pulse of the community" to identify emerging topics and bring together multiple perspectives in a discussion to strengthen the community.

Figure (12) The Number of Shares on Facebook



The previous figure shows that most user participation was focused on the "Russian invasion of Ukraine" category with 80%, followed by "the U.S. policy towards Russia" category in the second order with 13%. This coincides with the arrangement of the CNN agenda in publishing news. This result confirms the homogeneity of the media agenda with the agenda of the public, which interacts with the same political news that CNN focuses on publishing. This finding is consistent with Ware (2018), which found that reader

engagement with news stories has become more critical for the penetration of the T.V. news industry into social media platforms.

Second: The Field Study

This part reviews the field study results on a sample of 500 participants on the CNN Facebook page to view the data visualization by knowing the frequency of views and follow-ups on political issues on the news site. The field study questions included the following:

What are the reasons for pursuing political issues?

What is the trend of CNN toward political issues?

What is the degree of your interest in political issues?

What is the order of the priority of political issues?

What is the assessment of the role of CNN in presenting political issues?

Table (11) The Demographic Characteristics of the Respondents

Characteristics	Categories	F	%	Total	
The Gender	Male	300	0.6	500	100%
	Female	200	0.4		
The Age	Less than 30 age	50	0.1	500	100%
	30 to less than 40	100	0.2		
	40 to less than 50	150	0.3		
	More than 50	200	0.4		
The Education level	High school	150	0.3	500	100%
	Bachelor's degree	250	0.5		
	Postgraduate	100	0.2		

The previous table shows the percentage of males is 0.6% of the sample study. As for the age category, the group over 50 came in first place with a percentage of 0.4%, meaning they are the most

closely watched political issue. The "bachelor's degree" level came first in the educational level category with 0.5%, followed by the "High school" category with a percentage of 0.3%. This result differs from Bergström and Belfrage (2018), who found that young people are more likely to follow news on social media.

Table (12) CNN Follow-up on Facebook

CNN follow-up on Facebook	F	%
Very High	90	0.18
High	110	0.22
Medium	130	0.26
Low	90	0.18
Very low	80	0.16
Total	500	100

The previous table shows that the "medium follow-up" category has the highest percentage of CNN follow-up on Facebook at 0.26%, and "high follow-up" followed in second order by 0.22%. While "very high" and "low category" came in the third order at 0.18%. The following figure shows the differences between viewing degrees.

Table (13) Hours of Following CNN on Facebook Daily

Hours of following CNN on Facebook daily	F	%
Less than an hour	180	0.36
From an hour to less than two hours	140	0.26
From two hours to less than three hours	120	0.24
Three hours or more	60	0.12
Total	500	100

The previous table shows that the " Less than an hour " category has the highest percentage of hours, following CNN on Facebook at

0.36%, and " two hours to less than three hours " followed in second-order by 0.26%. While" Three hours or more" came at the last order. This finding confirms the researchers' idea of selective exposure, whereby audiences only read news related to their interests and don't spend much time on the news site (Camaj, 2019). The following figure shows the differences between viewing degrees.

Table (14) Reasons to follow CNN on Facebook

Reasons to follow CNN on Facebook	F	%
Immediate and fast updates in providing information	140	0.28
Depth in explaining and interpreting political issues	90	0.18
Availability of participation and interaction	90	0.18
Easy to access the website	60	0.12
Offer multiple opinions	50	0.1
Characterized by honesty and objectivity	50	0.1
Multimedia Availability	20	0.04
Total	500	100

The previous table shows that the " immediate and fast updates in providing information " category has the highest percentage of reasons to follow CNN on Facebook at 0.36%, and " depth in explaining and interpreting political issues " and "availability of participation and interaction" followed in second order by 0.18%. This finding is consistent with Bergström and Belfrage (2018), who found that consumers of daily news on social media rely on this content to keep them informed of current affairs. While" characterized by honesty and objectivity" and "offer multiple opinions" came late at 0.1%.

Table (15) The Favorite Content

The Favorite content	F	%
Politics	210	0.42
Economic	70	0.14
Sports	90	0.18
Arts	60	0.12
Social	70	0.14
Total	500	100

The previous table shows that the " politics content " category has the highest percentage of reasons to follow CNN on Facebook at 0.42%. "Sports content" followed in second order by 0.18%; maybe this result is related to the global concern of the Russian invasion of Ukraine, which leads people to follow political issues. This result differs from Bergström and Belfrage (2018), who found that users like to follow the light news on social media platforms. The difference between the two studies came from the sample age because most of the sample in the current study were more than 50 years old, so they are more interested in political content.

Table (16) The Degree to Follow Political Issues on CNN

The degree to follow the political issues on CNN	F	%
Very high	80	0.16
High	100	0.2
Medium	130	0.26
Low	90	0.18
Very low	100	0.2
Total	500	100

The previous table shows that the " medium " category is the highest percentage. The degree to follow political issues on CNN is

0.26%, and " low" in second order by 0.18%; this means that viewing CNN ranges between medium and low. This may be due to the desire of users to follow more than one source of news, so they do not condense their time to one news site. This result is consistent with Harder et al. (2017), which found that users search for their agenda in multiple mediums.

Table (17) Reasons for Pursuing Political Issues

Reasons for pursuing political issues	F	%
Identifying the most important political problems and issues	140	0.28
Dealing with political events and their developments	140	0.28
Monitoring political events locally and globally	130	0.26
Understand the current international system	90	0.18
Total	500	100

The previous table shows that " identifying the most important political problems and issues " and "dealing with political events and their developments" are the highest percentage of reasons for pursuing political issues on CNN at 0.28%, and " monitoring political events locally and globally" in second order by 0.26%. At the same time, "understand the current international system" came last at .018%. This reflects the audience's desire to know the most crucial topic to discuss with the others.

Table (18) The Trend of CNN Toward Political Issues

The trend of CNN toward political issues	F	%
Positive	150	0.3
Negative	140	0.28
Neutral (Objective)	140	0.28
Undefined trend	70	0.14
Total	500	100

The previous table shows that the " positive trend" is the highest percentage of the trend of CNN toward political issues at 0.3%, and the " negative trend" in the second order at 0.28%. While the "neutral trend" came last at 0.28%. CNN needs to be more objective towards the issues. This result differs from the analytical study, which found that the "negative trend" came first, followed by the "positive trend" and "neutral trend." The negative trend related to the Russian invasion of Ukraine is that CNN has a negative attitude toward the war. While the positive direction is associated with "U.S. policy towards Russia" and "White House decisions," CNN supports these issues in the news sample.

Table (19) The Degree of Interest in Political Issues

The Political Issues	F	%	Order
The Russian invasion of Ukraine	50	0.31	1
Conflict in the Middle East	9	0.05	6
White House decisions on immigration	23	0.14	5
White House decisions on oil reserves	19	0.12	3
U.S. policy towards Russia	28	0.18	4
Political sanctions against Russia	31	0.19	2
Total	160	100	

The previous table shows that the " Russian invasion of Ukraine" came in the first order at 0.31% of the total political issues, and "political sanctions against Russia" came in the second order at 0.19%, followed by "U.S. policy towards Russia" by 0.18%. These results are consistent with the analytical study that found these political issues published on the CNN website on Facebook. This means that the media agenda affected the public agenda; these findings are consistent with Matusitz and Ochoa (2018), who found that the more media coverage of specific issues, the more prominent these issues become with the public.

Table (20) The Assessment of the CNN in Presenting Political Issues

The Assessment of CNN	F	%
Good performance	220	0.44
Moderate performance	150	0.3
Poor performance	130	0.26
Total	500	100

The previous table shows that the " good performance " is the highest percentage of the assessment of CNN in presenting political issues at 0.44%, and the " moderate performance " in the second order at 0.3%. At the same time, the "poor performance" came last at .0.26%. This result related to the reasons for following CNN in (Table 17) when the respondents referred to "identifying the most important political problems and issues" as the first reason for

following CNN. This justification is why 0.44% evaluate CNN as a "good performance."

Figure (13) The Assessment of the Role of CNN in Presenting Political Issues

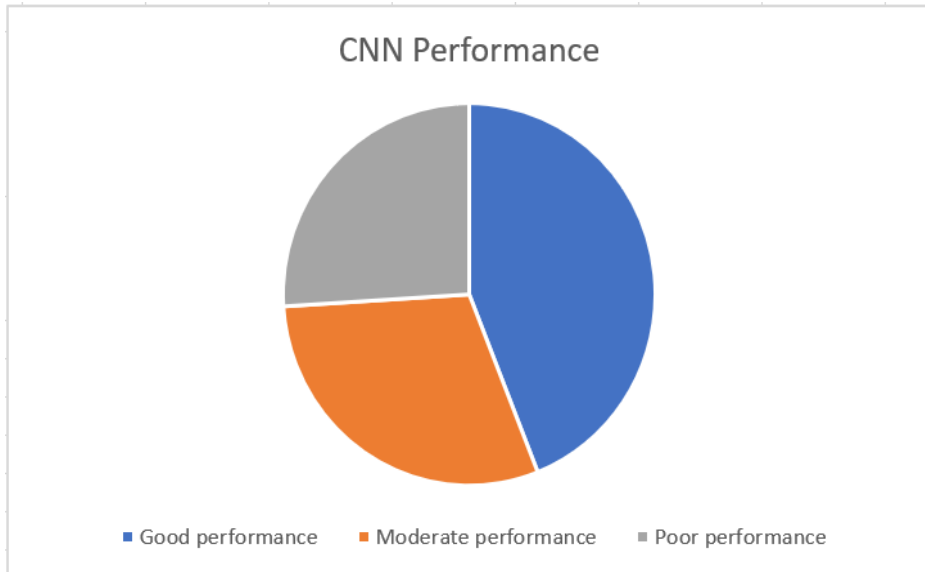


Table (21) The Extent of CNN's Coverage of Political Issues

The size of CNN's coverage of political issues	F	%
Enough	220	0.44
Somewhat Sufficient	140	0.28
Not enough	140	0.28
Total	500	100

The previous table shows that the size of CNN's coverage of political issues is "enough" and is the highest percentage of the assessment of CNN in presenting political issues at 0.44%. This result is consistent with (Table 20) which found that " good

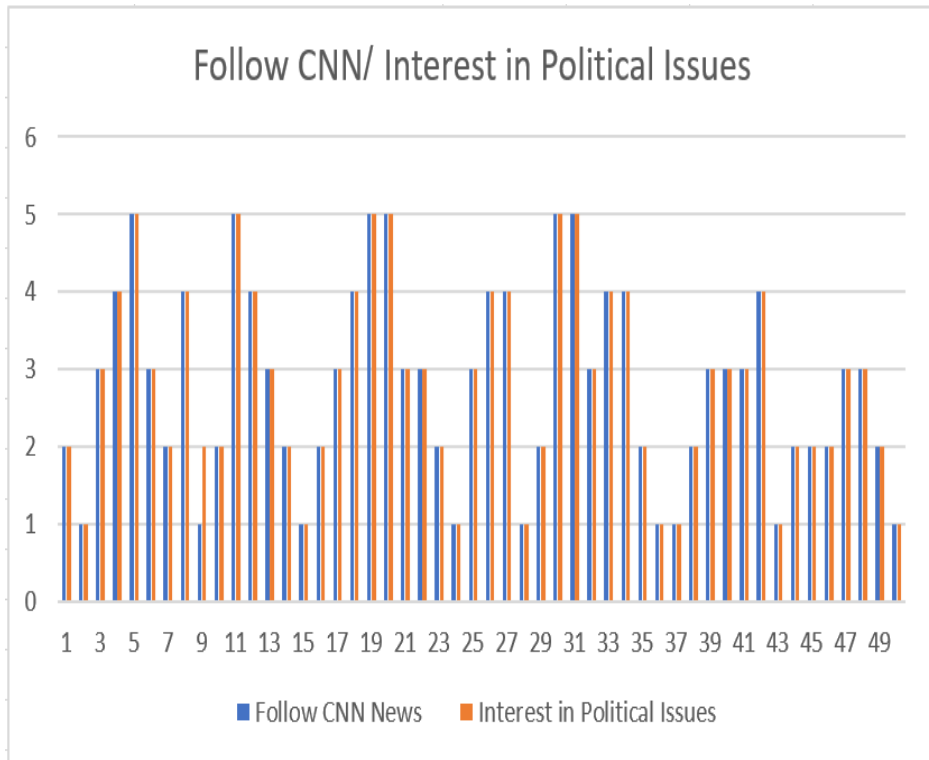
performance " came first. While the coverage of political news is "somewhat sufficient" and "not enough" at 0.28% Finally, the respondents provide some suggestions for developing CNN's performance in addressing political issues, Commitment to objectivity in covering local and international events; Separate news from opinion; Accuracy in providing information; Diversity in the form of presenting news and not only in the form of the report; Allocate space to comment and share opinions under each article; Providing the services of sending the article to a friend or printing it.

The Test Hypotheses

H1. There is a statistically significant correlation between the rate of exposure to the CNN news site and the agenda of political issues among CNN followers on Facebook.

The hypothesis test results found the validity of the first hypothesis, "there is a statistically significant relationship between the rate of exposure to the CNN news and the agenda of political issues," at the significance level of 0.05. The value of the Pearson correlation coefficient was 0.85, which is a strong direct correlation between the two variables: the independent (following CNN) and the dependent variable (the degree of interest in political issues). The following figure shows the data visualization of the relationship between the two variables.

Figure (14) The Relationship Between Following CNN and the Interest in Political Issues



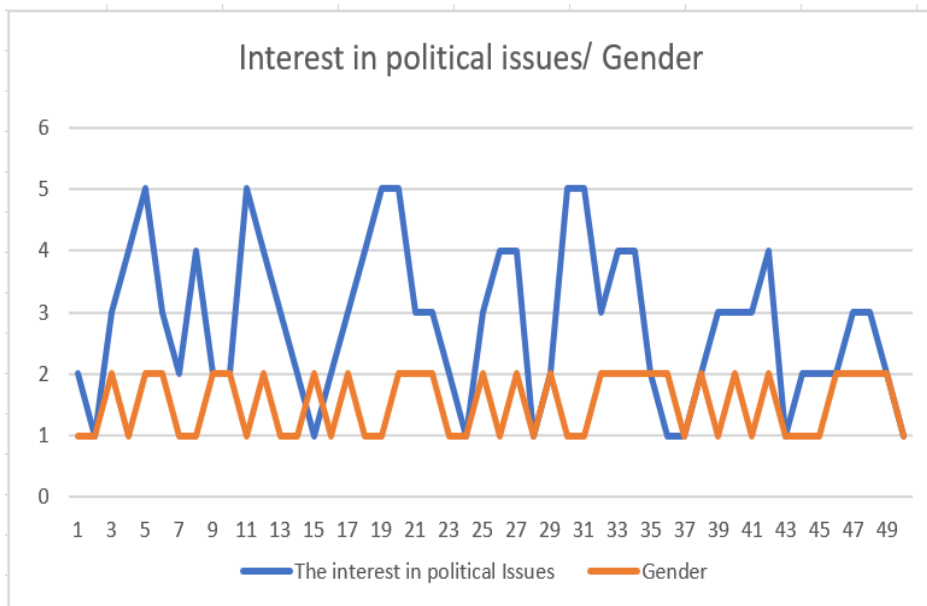
H2. There is a statistically significant correlation between setting the political issues on CNN and the public's prioritization of political topics.

The results of the hypothesis test found the validity of the Second hypothesis: "There is a statistically significant relationship between setting the political issues on CNN and their arrangement among the respondents at the level of significance of 0.05, and the value of the Pearson correlation coefficient reached 0.63, which is a medium correlation between the two variables: the independent (the setting of political issues in CNN) and the dependent variable (setting the political issues among the respondents), the following figure shows the data perception of the relationship between the two variables.

H3. There is a statistically significant relationship between the demographic factors (gender, age, educational level) and the interest in political issues.

As for the third hypothesis, "there is a statistically significant relationship between the rate of respondents' interest in political issues according to different demographic variables (gender, age, education). The results indicated a weak direct correlation between the variable of interest in political issues and gender at the significance level of 0.05, where the Pearson correlation coefficient was 0.08. The following figure shows the data visualization of the relationship between the two variables.

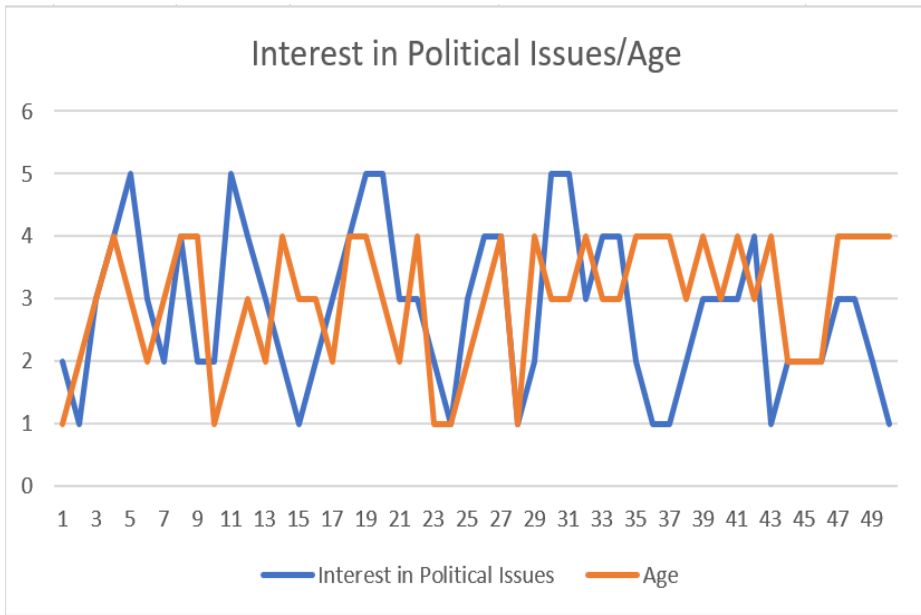
Figure (15) The Relationship Between Interest in Political Issues and Gender



The results showed a strong correlation between (respondents' interest in political issues) and the variable (age), where Spearman's correlation coefficient between the two variables was 0.8, which

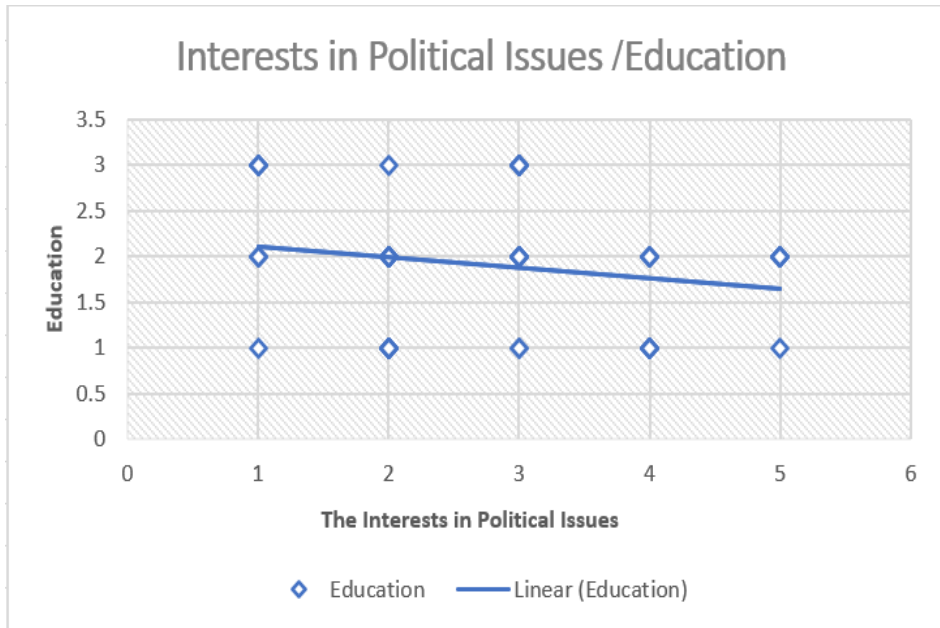
means that age affects the degree of interest in political issues, the higher the age, the greater the interest in political issues.

Figure (16) The Relationship Between the Interest in Political Issues and Age



As for the education variable, the relationship between interest in political issues and education was 0.20 - a weak inverse relationship. The higher the level of education, the less interest in political issues was. Thus, the third sub-hypothesis was not proven to be true concerning the level of education.

Figure (17) The Relationship Between the Interest in Political Issues and Education



Suggestions for Further Research

Given the limited sample and the time available for the study, it is recommended to study several other variables that may influence the formation of the audience's agenda through new media, namely opinion leaders on social media, influencers, and audiences who create content, which has become the role of the media in setting the agenda. The media, as well as the media gatekeeper in the new media? Is it still influential in choosing the news and focusing on specific content without the other? Considering the emergence of blogs and their freedom in writing and analysis, there is still a need for further research on these variables in the new media environment.

Conclusion

CNN's news agenda aligns with the general agenda regarding audience engagement and interaction with the news. The most

famous news is the same news that got the most comments and shares from the audience. The hypothesis test results concluded a statistically significant relationship between CNN follow-up and the degree of interest in political issues" at a significance level of 0.05. The value of Pearson's correlation coefficient was 0.85, and there was also a statistically significant relationship between placing political issues on CNN and their arrangement among respondents at a significant level. 0.05, and the value of the Pearson correlation coefficient was 0.63, which is an average correlation between the two variables. Also, there is a statistically significant relationship between the status of political issues on CNN and their arrangement among respondents, and the value of the Pearson correlation coefficient was 0.63.

As for the third hypothesis, it was found that there is a statistically significant relationship between the rate of respondents' interest in political issues according to different demographic variables (gender, age, education). The results indicated a weak direct correlation between the variable of interest in political issues and gender at the significance level of 0.05, where the Pearson correlation coefficient was 0.08. In contrast, the results showed a strong correlation between (respondents' interest in political issues) and the variable (age), where Spearman's correlation coefficient between the two variables was 0.8, which means that age affects the degree of interest in political issues. As for the education variable, the relationship between interest in political issues was 0.20 - a weak inverse relationship. The higher the level of education, the less attention is paid to political issues.

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To Prevent the Collapse of Biodiversity, the World Needs a New Planetary Politics

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SUMMARY

The Sustainable Development Goals enshrine a new way of understanding and undertaking development in a holistic manner. No longer is it solely a measure of how much people earn or how long they live, but about how they experience life. It takes into account a tremendous range of factors, from the plastic floating in their oceans, through mental well-being and happiness, to their ownership of a mobile phone. Moreover, the new definition puts the emphasis on the long-term. Development that cannot provide for future generations economically, environmentally, and socially is not true development.

Keywords: *Biodiversity, the world, A new a New Planetary Politics.*

Introduction:

The planet is in the midst of an environmental emergency, and the world is only tinkering at the margins. Humanity's addiction to fossil fuels and voracious appetite for natural resources are accelerating climate change and degrading ecosystems on land and sea, threatening the integrity of the biosphere and thus the survival of our own species. Given these risks, it is shocking that the multilateral system has failed to respond more forcefully. Belatedly, the United States, the EU, the UK, and some other advanced market democracies have adopted more aggressive greenhouse gas reduction targets, but their ability to deliver is suspect, while critical emerging economies like China and India have resisted accelerating their own decarbonization¹. Even more concerning, existing multilateral commitments, including on climate change, fail to address the other half of the planet's ecological crisis: collapsing biodiversity, which the leaders of the Group of 7 nations rightly call an “equally important existential threat.”²

Preserving the natural world on which our well-being depends requires more than lofty rhetoric from national leaders. It demands bold breakthroughs in international environmental cooperation that can bridge the chasm between a global political system divided into nearly 200 independent countries and a unitary biosphere that obeys

¹. “COP 26 Exposed the Sorry State of Climate Diplomacy,” World Politics Review, November 22, 2021, <https://www.worldpoliticsreview.com/to-reach-mitigation-climate-change-diplomacy-must-do-better>.

². “Biden's Environmental Agenda Must Go Beyond Climate Change,” World Politics Review, November 30, 2020, <https://www.worldpoliticsreview.com/biden-s-environmental-agenda-must-go-beyond-climate-change>.

no sovereign boundaries. It is time to govern the world as if the Earth mattered.³

What is needed is a paradigm shift in foreign policy and international relations, which one might term “planetary politics.”⁴ The cornerstone of this new worldview is ecological realism: recognition that the integrity of the biosphere is the fundamental precondition for all that humanity hopes to accomplish⁵. This new mindset will require governments to expand traditional definitions of national interest and international security, broaden conventional conceptions of sovereign obligations, and adopt a new approach to measuring national wealth that accounts for and values Earth’s natural capital assets.

To put this new mindset into action, the world’s governments must overhaul and strengthen the institutional and legal foundations of international environmental cooperation. Priorities include investing in nature-based solutions to climate change; bringing global trade rules into line with ecological imperatives; adopting a new approach to development that is truly sustainable; strengthening the Convention on Biological Diversity; finalizing agreement on the High Seas Biodiversity Treaty; and negotiating a comprehensive Global Pact for the Environment.

SUMMARY FOR POLICYMAKERS

Climate change is just part of the global environmental emergency. Biological diversity is also imperilled. Human activity is driving

³. Stewart M. Patrick, “The International Order Isn’t Ready for the Climate Crisis: The Case for a New Planetary Politics,” *Foreign Affairs* (November/December 2021), <https://www.foreignaffairs.com/articles/world/2021-10-19/climate-crisis-international-order-isnt-ready>.

⁴. Ibid.

⁵. Stewart M. Patrick, “The Case for Ecological Realism,” *World Politics Review*, July 20, 2020, <https://www.worldpoliticsreview.com/the-case-for-ecological-realism>.

unprecedented declines in ecosystems and species, threatening the health and integrity of the biosphere and the innumerable benefits that we obtain from the natural world.

Unfortunately, existing national policies and multilateral institutions have proven totally inadequate to address this potentially existential risk. Restoring balance between humanity and nature requires a paradigm shift toward “planetary politics,” accompanied by dramatic innovations in global environmental governance.

A NEW MINDSET

The point of departure for planetary politics is recognition that everything humanity seeks to accomplish ultimately depends on the stability and health of a unitary biosphere that does not recognize national borders. Three priorities for governments flow from this:

Designate the survival and stewardship of the biosphere as a core national interest and a central objective of international cooperation.

Bring traditional concepts of sovereignty into line with the imperatives of planetary ecological stewardship, including by endorsing a new state responsibility to protect the global environment.

Work with corporations and communities to account for, invest in, and safeguard natural capital and ecosystem services, rather than taking them for granted and exploiting them to exhaustion.

NEW MULTILATERAL INSTITUTIONS AND POLICIES

Planetary politics will require strengthening existing and creating new multilateral institutions and treaties to address the crisis of the biosphere—and backing these commitments with adequate resources.

Expand nature-based climate solutions. Given the intertwined natures of the climate and biodiversity crises, parties to the

UNFCCC should redouble their efforts to capture and permanently store CO₂ in natural carbon sinks.

Make international trade nature friendly. To make global trade “green,” nations should adopt border carbon adjustments to penalize polluters, eliminate nature-destroying subsidies, liberalize trade in environmental goods, and crack down on illicit trafficking in wild species.

Make global development truly sustainable. To reconcile the needs of humanity and the viability of nature, the international community must rein in destructive extractive industries and redesign and mobilize development financing to encourage environmental stewardship.

Strengthen the Convention on Biological Diversity (CBD). At their Fifteenth Conference of Parties in December 2022, parties to the CBD must ratify a robust new global biodiversity framework, including a credible commitment to protect 30 percent of Earth’s land and ocean by 2030.

Bring the United States into the CBD. Joe Biden’s administration should promptly seek the U.S. Senate’s advice and consent for ratification of the CBD, which is fully consistent with U.S. national sovereignty and U.S. national interests.

Conclude a High Seas Biodiversity Treaty. UN member states should restart and conclude negotiations on this convention, to establish multilateral rules governing the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction.

Negotiate a Global Pact for the Environment. Finally, the nations of the world should promptly begin negotiations on a comprehensive global convention to bring coherence to the fragmented landscape of international environmental organizations, treaties, and law.

THE HUMAN ASSAULT ON NATURE: WELCOME TO THE ANTHROPOCENE

So great is our species' collective impact on the planet that some scientists advocate designating an entirely new era, the Anthropocene (the Age of Humans), to describe the current moment.⁶ Since 1950, globalization has delivered remarkable progress, including an eleven-fold increase in global gross domestic product (GDP), adjusted for inflation.⁷ Many average citizens now enjoy material comforts unimaginable to monarchs in previous centuries.⁸ Such abundance has come at grievous cost to nature, however, fundamentally altering our relationship to the living planet.⁹ The global population has more than tripled from 2.5 billion to 8 billion over the same seventy years, and our ravenous material desires are jeopardizing the innumerable benefits we obtain from healthy ecosystems, ranging from breathable air and

⁶. The Anthropocene label was first suggested by Nobel Prize-winning scientist Paul Crutzen and his colleague Eugene Stoermer in 2001. This proposed new epoch would replace the Holocene, which began just under 12,000 years ago, at the end of the last glaciation. See Will Steffen, Paul J. Crutzen, and John R. McNeill, "The Anthropocene: Are Humans Now Overwhelming the Great Forces of Nature?," Royal Swedish Academy of Sciences, 2007, https://www.pik-potsdam.de/news/public-events/archiv/alter-net/former-ss/2007/05-09.2007/steffen/literature/ambi-36-08-06_614_621.pdf.

⁷. Hans Rosling, *Factfulness: Ten Reasons We're Wrong about the World—and Why Things are Better than You Think* (Flatiron Books, 2018)..

⁸. Robert Engelman, "Beyond Sustainable," *State of the World 2013* (Washington, DC: Worldwatch Institute, 2013), 3–16.

⁹. Will Steffen, Wendy Broadgate, Lisa Deutsch, Owen Gaffney, and Cornelia Ludwig, "The Trajectory of the Anthropocene: The Great Acceleration," *Anthropocene Review* 2, no. 1 (January 16, 2015), <https://journals.sagepub.com/doi/10.1177/2053019614564785>; J. R. McNeill and Peter Engelke, *The Great Acceleration: An Environmental History of the Anthropocene Since 1945* (Cambridge: Harvard University Press, 2016), <https://www.hup.harvard.edu/catalog.php?isbn=9780674545038>.

fertile soils to clean water and pollinated crops. Humanity has become the most powerful force shaping the Earth system.¹⁰

“Humanity has become the most powerful force shaping the Earth system.”

The scope and costs of this assault can no longer be ignored. They have been documented in a succession of stark reports from the United Nations and private groups like the World Wide Fund for Nature.¹¹ On nearly all indicators, the trajectory is dismal. Global carbon dioxide (CO₂) emissions would need to drop 45 percent by 2030 to hold the rise in average global temperatures to 1.5°C, the objective to which nations agreed in Paris in 2015. Instead, they are on track to decline only 3 percent by the end of the decade, portending a future of searing heat, raging wildfires, acidifying oceans, violent storms, rising seas, and mass migration.¹² In the latest Emissions Gap Report, issued shortly before the twenty-seventh Conference of Parties to the UN Framework Convention on Climate Change (COP27), the UN Environment Programme (UNEP) admitted that there is “no credible pathway to 1.5°C in place.” Indeed, current policies point to a world where temperatures

¹⁰. Ferris Jabr, “The Earth Is Just as Alive as You Are,” New York Times, April 20, 2019, <https://www.nytimes.com/2019/04/20/opinion/sunday/amazon-earth-rain-forest-environment.html>.

¹¹. UN Environment, “Global Biodiversity Outlook 5,” September 15, 2020, <https://www.cbd.int/gbo5>; and World Wide Fund for Nature, “Living Planet Report 2022,” <https://livingplanet.panda.org/en-US>.

¹². David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Tim Duggan, 2019); Stewart M. Patrick, “The Long-Awaited Climate Emergency Is Now,” *World Politics Review*, August 16, 2021, <https://www.worldpoliticsreview.com/even-with-mitigation-climate-change-will-remake-the-planet>; and Stewart M. Patrick, “How Should the World Respond to the Coming Wave of Climate Migrants?,” *World Politics Review*, March 16, 2020, <https://www.worldpoliticsreview.com/how-should-the-world-respond-to-the-coming-wave-of-climate-migrants>.

rise 2.8°C, and national commitments (even if fulfilled) would only reduce this to 2.4–2.6°C. ¹³ “We had our chance to make incremental changes, but that time is over,” warns Inger Andersen, UNEP’s executive director. “Only a root-and-branch transformation of our economies and societies can save us from accelerating climate disaster.” ¹⁴

Climate change, moreover, is just part of Earth’s environmental plight. Biological diversity is also imperilled, and global warming is not even the primary culprit. ¹⁵ Around the world, ecosystems and species are at risk of collapsing as humans degrade and despoil landscapes and seascapes, dump pollutants and toxins into the environment, introduce invasive species, and harvest timber, fish, wildlife, and other living resources unsustainably.

The figures are sobering. ¹⁶ Three-quarters of the planet’s ice-free terrestrial surfaces and two-thirds of its marine environment have

¹³. UNEP, “Emissions Gap Report 2022,” October 27, 2022, <https://www.unep.org/resources/emissions-gap-report-2022>; Sarah Kaplan, “World Falls ‘Pitifully Short’ of Meeting Climate Goals, U.N. Report Says,” Washington Post, October 27, 2022, <https://www.washingtonpost.com/climate-environment/2022/10/27/emissions-climate-change-temperature-rise>.

¹⁴. Andersen cited in Damian Carrington, “Climate Crisis: UN Finds ‘No Credible Pathway to 1.5°C in Place,’” Guardian, October 27, 2022, <https://www.theguardian.com/environment/2022/oct/27/climate-crisis-un-pathway-1-5->

c#:~:text=There%20is%20%E2%80%9Cno%20credible%20pathway,%E2%80%9Crapid%20transformation%20of%20societies%E2%80%9D.

¹⁵. Stewart M. Patrick, “How Biden Can Embrace Environmental Stewardship,” World Politics Review, February 22, 2021, <https://www.worldpoliticsreview.com/it-s-time-to-take-biodiversity-threats-more-seriously>. The leading causes of biodiversity loss are (in order): degradation of land and seascapes, climate change, unsustainable exploitation, pollution, and invasive species. See Eduardo Brondizio, Sandra Diaz, Josef Settele, and Hien T. Ngo (eds.), Global Assessment Report on Biodiversity and Ecosystem Services (IPBES: 2019), <https://ipbes.net/global-assessment>.

¹⁶. The premier global authority on the state of global biodiversity is the ungainly-titled Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), established in April 2012. The IPBES, which draws on the work of thousands

already been severely altered, including by agriculture, ranching, logging, mining, urbanization, and industrial fishing.¹⁷ Ninety-three percent of global fisheries are overexploited or exploited to capacity, and fleets have reduced large ocean fish to 10 percent of their preindustrial numbers.¹⁸ Every year, the world discharges another 300–400 million tons of toxic sludge, heavy metals, and industrial poisons directly into the water, as well as 14.3 million tons of plastic into the oceans.¹⁹ Globally, fertilizer runoff has created more than 400 hypoxic (low oxygen) coastal “dead zones,” with a combined area larger than that of the United Kingdom.²⁰

One million animal and plant species face near-term extinction.

²¹ Since 1970, populations of wild vertebrates have declined by 69

of scientists, plays a role analogous to the Intergovernmental Panel on Climate Change (IPCC). See “About,” IPBES, <https://ipbes.net/about>.

¹⁷. Robert Scholes et. al., *The Assessment Report on Land Degradation and Restoration: Summary for Policymakers* (IPBES: March 24, 2018), <https://zenodo.org/record/3237411#.Y1q3a3bMKUm>; and IPBES, “Media Release: Worsening Worldwide Land Degradation Now ‘Critical’, Undermining Well-Being of 3.2 Billion People,” March 23, 2018, <https://seea.un.org/content/media-release-worsening-worldwide-land-degradation-now-%E2%80%98critical%E2%80%99-undermining-well-being-32>.

¹⁸. *Towards Blue Transformation: A Vision for Transforming Aquatic Food Systems*,” Food and Agriculture Organization of the United Nations, 2022, <https://www.fao.org/state-of-fisheries-aquaculture>; and “Global Assessment Report on Biodiversity and Ecosystem Services,” IPBES, 2019, <https://ipbes.net/global-assessment>.

¹⁹. Erik Solheim, “The Planet Is on the Edge of a Global Plastic Calamity,” *Guardian*, June 5, 2018, <https://www.theguardian.com/environment/2018/jun/05/the-planet-is-on-edge-of-a-global-plastic-calamity>.

²⁰. One Ocean, “Marine Pollution,” <https://www.oceanprotect.org/resources/issue-briefs/marine-pollution/#:~:text=Taking%20an%20average%20of%208,four%20per%20minute%20by%202050>. . UN Environment, “The First Integrated Integrated Marine Assessment: Ocean Assessment I, (2016), <https://www.unep.org/resources/report/first-global-integrated-marine-assessment-world-ocean-assessment-i>.

²¹. Sandra Diaz et. al., *The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers* (IPBES:

percent and insects by 45 percent worldwide, and 3 billion birds have vanished from North America.²² Humans and our domesticates now account for 96 percent of the planet's mammalian biomass; 70 percent of all birds are poultry.²³ Half of all tropical forests have been destroyed since 1960, and each year the world loses another 3.36 million hectares (8.3 million acres)—an area the size of Belgium.²⁴ Globally, more than 85 percent of wetlands and 35 percent of mangroves have already been lost.²⁵

2019), [https://ipbes.net/sites/default/files/2020-](https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf)

[02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf](https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf).

²². World Wide Fund for Nature, “Living Planet Report 2022”; David L. Wagner et. al., “Insect Decline in the Anthropocene: Death by a Thousand Cuts,” *PNAS* 118, no. 2, January 11,

2021, [Science 366, no. 6461 \(September 19, 2019\), 120–124, \[https://www.pnas.org/doi/10.1073/pnas.2023989118#:~:text=Dirzo%20et%20al.'s%20\\(in%20the%20last%20four%20decades; Ben Guarino, “‘Hyperalarming’ Study Shows Massive Insect Loss,” *Washington Post*, October 15, 2018, \\[https://www.science.org/doi/10.1126/science.aaw1313#:~:text=Integration%20of%20range%2Dwide%20population,a%20recent%2010%2Dyear%20period.\\]\\(https://www.washingtonpost.com/science/2018/10/15/hyperalarming-study-shows-massive-insect-loss; and Kenneth V. Rosenberg et. al., ‘Decline of the North American Avifauna,’ <i>Science</i> 366, no. 6461 \\(September 19, 2019\\), 120–124, <a href=\\)\]\(https://www.science.org/doi/10.1126/science.aaw1313#:~:text=Integration%20of%20range%2Dwide%20population,a%20recent%2010%2Dyear%20period.\)](https://www.pnas.org/doi/10.1073/pnas.2023989118#:~:text=Dirzo%20et%20al.'s%20(in%20the%20last%20four%20decades; Ben Guarino, “‘Hyperalarming’ Study Shows Massive Insect Loss,” <i>Washington Post</i>, October 15, 2018, <a href=)

²³. Yinon M. Bar-On, “The Biomass Distribution on Earth,” *PNAS* 115, no. 25 (May 21, 2018), 6506–6511, <https://www.pnas.org/doi/10.1073/pnas.1711842115>.

²⁴. Conservation International, “Deforestation: 11 Facts You Need to Know,” [Science 361 \(2018\), 1108–1111, \[https://www.science.org/content/article/scientists-reveal-how-much-world-s-forests-being-destroyed-industrial-agriculture; and Philip G. Curtis et. al., ‘Classifying Drivers of Global Forest Loss,’ *Science* 361 \\(2018\\), 1108–1111, <https://www.science.org/doi/10.1126/science.aau3445.>\]\(https://www.science.org/doi/10.1126/science.aau3445.\)](https://www.conservation.org/stories/11-deforestation-facts-you-need-to-know; Erik Stokstad, ‘New Global Study Reveals the ‘Staggering’ Loss of Forests Caused by Industrial Agriculture,’ <i>Science</i>, September 13, 2018, <a href=)

²⁵. Kate Poole, “IPBES and the Threats to the World’s Fresh Water,” *Natural Resources Defense Council*, May 6, 2019, [!\[\]\(faf942dc3e59ce8eb64b4ac481eca7e0_img.jpg\)](https://www.nrdc.org/experts/kate-poole/ipbes-and-threats-worlds-fresh-water#:~:text=More%20than%2080%25%20of%20wastewater,times%20faster%20than%20forest%20loss; Ilka C. Feller, Daniel A. Friess, Ken W. Krauss, and Roy R. Lewis III, ‘The State of the World’s Mangroves in the 21st Century Under Climate Change,’ <i>Hydrobiologia</i> 803 (2017), 1–</p></div><div data-bbox=)

There have been five mass extinctions in Earth's 4.5-billion-year history. Mounting evidence suggests we are on the cusp of a sixth.²⁶ This risk is particularly acute in the world's oceans, which are warmer than they have been in recorded history and 30 percent more acidic than they were just 200 years ago—the fastest change in ocean chemistry in 50 million years.²⁷ Half of all coral reefs have disappeared since 1990, and 90 percent of those that remain are likely to die by 2050 as average sea temperatures exceed those ever recorded.²⁸ Acidic waters, meanwhile, threaten the survival of zooplankton and invertebrates and the collapse of entire food chains. Without swift and dramatic steps to reduce greenhouse gas emissions, two Princeton University scientists warned earlier this year, the loss of ocean biodiversity over the next three centuries could rival the Permian Extinction, which saw the disappearance of 90 percent of ocean life.²⁹

12, <https://link.springer.com/article/10.1007/s10750-017-3331-z>.

²⁶. Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: Henry Holt, 2014).

²⁷. Bradley Dennis, "Oceans Are Warming Faster Than Ever: Here's What Could Come Next," *Washington Post*, October 18,

2022, <https://www.washingtonpost.com/climate-environment/2022/10/19/oceans-warming-climate-change/>; and "Ocean Acidification," Smithsonian

Institution, <https://ocean.si.edu/ocean-life/invertebrates/ocean-acidification#:~:text=Even%20though%20the%20ocean%20is,the%20last%2050%20million%20years>. The oceans absorb 90 percent of the heat from global warming. See "Ocean Warming," NASA, <https://climate.nasa.gov/vital-signs/ocean-heat>

²⁸. Elena Becatoros, "More Than 90 Percent of World's Coral Reefs Will Die by 2050," *Independent*, March 13, 2017, <https://www.independent.co.uk/climate-change/news/environment-90-percent-coral-reefs-die-2050-climate-change-bleaching-pollution-a7626911.html>; and World Economic Forum, "2021 Ocean Temperatures Were Warmest on Record," January 18,

2022, <https://www.weforum.org/agenda/2022/01/2021-ocean-temperatures-were-warmest-on-record-climate-change>.

²⁹. Justin L. Penn and Curtis Deutsch, "Avoiding Mass Extinction From Climate Warming," *Science* 376, no. 6592 (April 28, 2022), 524–

Our own species is suffering, too, on this degraded and crowded planet. Hundreds of millions face food insecurity, and agricultural production must rise 50 percent by mid-century to meet growing demands.³⁰ Freshwater resources are under similar strain as snowpack melts and aquifers are drained faster than they are replenished. By 2050, 40 percent of humanity could confront severe water stress.³¹

Human health is also at risk. Since 1970, some 200 pathogens have leapt from wild animals to people, often through intermediate hosts. They include among others HIV/AIDS, Ebola, SARS, Nipah, West Nile, MERS, H5N1, monkey pox, and of course SARS-CoV-2, the virus that causes COVID-19 and that came from horseshoe bats³² While epidemiologists debate the pandemic's proximate origins (natural transmission versus laboratory leak), they agree that we have entered a new era of infectious disease—and that our unsustainable approach to nature is partly to blame.³³ As humans

526, <https://www.science.org/doi/10.1126/science.abe9039>; and Catrin Einhorn, "Warning on Mass Extinction on Sea Life: 'An Oh My God' Moment," New York Times, April 28, 2022, <https://www.nytimes.com/2022/04/28/climate/global-warming-ocean-extinctions.html>

³⁰. "Creating a Sustainable Food Future," World Resources Institute, July 2019, <https://research.wri.org/wrr-food>.

³¹. World Bank Group, High and Dry: Climate Change, Water, and the Economy (World Bank, Washington, DC: 2016), <https://www.worldbank.org/en/topic/water/publication/high-and-dry-climate-change-water-and-the-economy#:~:text=A%20new%20World%20Bank%20reports,use%20water%20resources%20more%20efficiently>.

³². Stewart M. Patrick, "The Coronavirus Pandemic Is the Shape of Things to Come," World Politics Review, February 24, 2020, <https://www.worldpoliticsreview.com/the-coronavirus-outbreak-is-the-shape-of-things-to-come>.

³³. United Nations Environment Programme and International Livestock Research Institute, Preventing the Next Pandemic: Zoonotic Diseases and How to Break the Chain of Transmission (2020), <https://www.unep.org/resources/report/preventing-future-zoonotic-disease-outbreaks-protecting-environment-animals-and>.

and livestock encroach upon and disrupt biodiverse ecosystems, they encounter once-isolated species, exposing themselves to new viruses that can quickly spread globally.³⁴ The average annual cost of emerging zoonoses is more than \$1 trillion worldwide, with periodic pandemics capable of inflicting severe damage (in the case of COVID-19, as much as \$28 trillion in lost global growth through 2025).³⁵

Two and a half centuries after the much-maligned Thomas Malthus published his *Essay on the Principle of Population*, the good reverend merits another hearing, albeit with a twist.³⁶ While Malthus may have erred in arguing that food production could never keep pace with human fecundity, overconsumption is definitely an ecological problem. According to the Global Footprint Network, it would take almost five Earths' worth of resources for the world's 8 billion inhabitants to achieve the same living standard average Americans enjoy today.³⁷ And things are poised to get worse before they get better. Despite declining fertility, the human population will not plateau until at least 2060, and the aspirations of a rising global middle class will exacerbate ecological strains.

³⁸ Contrary to the beguiling claims of techno-utopians, there is

³⁴. Stewart M. Patrick, "Earth Day's New Urgency in the Era of COVID-19," *World Politics Review*, April 20, 2020, <https://www.worldpoliticsreview.com/earth-day-s-new-urgency-in-the-era-of-covid-19>.

³⁵. Stewart M. Patrick, "Earth Day's New Urgency in the Era of COVID-19," *World Politics Review*, April 20, 2020, <https://www.worldpoliticsreview.com/earth-day-s-new-urgency-in-the-era-of-covid-19>.

³⁶. Thomas Malthus, *An Essay on the Principle of Population* (London: J. Johnson, 1798), <https://math.uchicago.edu/~shmuel/Modeling/Malthus,%20An%20essay%20on%20the%20principle%20of%20population.pdf>.

³⁷. "Our Work," Global Footprint Network, <https://www.footprintnetwork.org/our-work..>

³⁸. Demographers offer widely divergent estimates about when and at what level global population will peak. The UN Department of Economic and Social Affairs anticipates that it will level off at nearly 11 billion in 2100, while another authoritative study

scant evidence that societies get “more from less” as they become wealthier.³⁹ Rather, the newly prosperous tend to outsource their natural resource demands to developing countries.⁴⁰

In seeking to satisfy these appetites, we risk breaching several planetary boundaries—including those related to atmospheric CO₂ concentrations, ocean acidification, species extinction, and nitrogen fixation—that define what scientists call a “safe operating space for humanity.”⁴¹ Indeed, evidence is mounting that important subcomponents of the Earth system could be approaching critical thresholds that, when crossed, bring about massive, nonlinear shifts that will themselves accelerate climate change, with disastrous and potentially irreversible consequences for nature and humanity.⁴² Such potential

predicts a peak of 9.7 billion in 2064. See “Growing at a Slower Pace, World Population Is Expected to Reach 9.7 Billion in 2050, and Could Peak at Around 11 Billion in 2100,” United Nations, June 17,

2019, <https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html>; and Stein Emil Vollset, et. al., “Fertility, Mortality, Migration, and Population Scenarios for 195 Countries and Territories from 2017 to 2100: A Forecasting Analysis for the Global Burden of Disease Study,” *The Lancet* 396, 10258 (October 17, 2020), [https://www.thelancet.com/article/S0140-6736\(20\)30677-2/fulltext..](https://www.thelancet.com/article/S0140-6736(20)30677-2/fulltext..)

³⁹. A classic example of this optimistic argument is Andrew McAfee, *More From Less: The Surprising Story of How We Learned to Prosper Using Fewer Resources—and What Happens Next* (Scribner, 2019)..

⁴⁰. For a pointed critique of McAfee’s thesis, see Jason Hickel, “The Myth of America’s Green Growth,” *Foreign Policy*, June 18, 2020, <https://foreignpolicy.com/2020/06/18/more-from-less-green-growth-environment-gdp..>

⁴¹. Johan Rockstrom et. al., “A Safe Operating Space for Humanity,” *Nature* 461 (September 23, 2009), 472–475, <https://www.nature.com/articles/461472a>; Will Steffen et. al., “Planetary Boundaries: Guiding Human Development on a Changing Planet,” *Science*, 347, 6223 (January 15, 2015), <https://www.science.org/doi/10.1126/science.1259855>; and Anthony D. Barnosky et. al., “Approaching a State Shift in Earth’s Biosphere,” *Nature* 486 (June 7, 2012), <https://www.nature.com/articles/nature11018..>

⁴². Timothy M. Lenton, “Climate Tipping Points—Too Risky to Bet

discontinuities include a rapid die-back of the Amazon rainforest, abrupt melting of boreal permafrost, and the sudden collapse of the Atlantic Meridional Overturning Circulation, an oceanic conveyor belt that keeps Europe's climate temperate.⁴³

Short of an alien invasion from outer space, it is hard to imagine any threat warranting more global solidarity and collective action than the prospect of rendering the sole planet we have uninhabitable. Our circumstance cries out for a “present at the creation” moment, akin to the flurry of international institution-building that followed World War II.⁴⁴

“Short of an alien invasion from outer space, it is hard to imagine any threat warranting more global solidarity and collective action than the prospect of rendering the sole planet we have uninhabitable.”

Instead, multilateral environmental cooperation is flailing. Most nations continue to treat ecological challenges as second-tier foreign policy priorities best managed by environmental ministries, leaving their foreign, defense, finance, and trade counterparts to focus on (presumably weightier) matters like geopolitical competition, alliance politics, arms control, macroeconomic coordination, and international commerce. The results are

Against,” *Nature* (November 27, 2019), <https://www.nature.com/articles/d41586-019-03595-0>; and “The Growing Risk of Climate ‘Tipping Points’: Scientific Evidence and Policy Responses,” Council on Foreign Relations webinar, February 4, 2022, <https://www.cfr.org/event/growing-risk-climate-tipping-points-scientific-evidence-and-policy-responses..>

⁴³. David I. Armstrong McKay et. al. “Exceeding 1.5°C Global Warming Could Trigger Multiple Climate Tipping Points,” *Science* 377, 6611 (September 9, 2022), <https://www.science.org/doi/10.1126/science.abn7950>; Stewart M. Patrick, “Tipping Points Make Climate Inaction Even More Catastrophic,” *World Politics Review*, February 14, 2022, <https://www.worldpoliticsreview.com/as-the-world-nears-tipping-points-climate-action-can-t-be-ignored..>

⁴⁴. Stewart Patrick, *The Best Laid Plans: The Origins of American Multilateralism and the Dawn of the Cold War* (Lanham, MD: Rowman and Littlefield, 2009)..

predictable. What passes for multilateral environmental governance is a patchwork of weak, sector-specific agreements, overseen by underpowered implementing bodies unable to enforce compliance with ostensible commitments. The annual COPs provide a case in point. The Earth may be on fire, but the planet's fate continues to depend on a hodgepodge of uncoordinated national pledges driven by short-term domestic political and economic considerations.

A NEW MINDSET

The advent of the Anthropocene demands something more. It warrants a paradigm shift in foreign policy and international relations, in which cooperation on the shared environmental threats of climate change and collapsing biodiversity move to centre stage. Planetary politics begins with the recognition that our traditional approaches to foreign policy, international security, and world order are incapable of addressing the most pressing ecological threats to human lives and livelihoods. As an initial step, all governments must designate the survival of the biosphere as a core national interest and a central objective of national security—and organize and invest accordingly.

EMBRACING ECOLOGICAL REALISM

The global environmental emergency, like the COVID-19 pandemic, has exposed the limitations of traditional political realism as a guide to statecraft in an age of planetary threats. That venerable perspective, elaborated by Thucydides, Niccolo Machiavelli, Thomas Hobbes, and Jean-Jacques Rousseau as well as more recent thinkers and practitioners like Hans Morgenthau and Henry Kissinger, still dominates the study and practice of foreign

policy, not least in the United States.⁴⁵ It depicts the international system as a fundamentally anarchic, cutthroat realm in which nations must be ever vigilant of the prospect of violence and nurture military capabilities to defend themselves. Alas, any step that one state takes to enhance its power inevitably makes others feel vulnerable, producing the well-known security dilemma.

⁴⁶ International institutions and alliances can dampen but never eliminate these dynamics, which are rooted in the human desire to dominate and the absence of world government.

“Political realists are fond of describing world politics as a Hobbesian ‘state of nature.’ But they seldom pause to consider the state of nature itself.”

Political realism has its uses. It helps explain Sino-American geopolitical rivalry and regional tensions among Persian Gulf nations, for instance. But it offers little insight on how to think about—much less respond to—threats without a threatened, like climate change or pandemic disease, that arise from human interactions with the environment.⁴⁷ Its blind spot is in assuming

⁴⁵. “Political Realism in International Relations,” Stanford Encyclopedia of Philosophy, <https://plato.stanford.edu/entries/realism-intl-relations>; Stephen M. Walt, “The World Wants You to Think Like a Realist,” *Foreign Policy*, May 30, 2018, <https://foreignpolicy.com/2018/05/30/the-world-wants-you-to-think-like-a-realist..>

⁴⁶. Robert Jervis, “Cooperation Under the Security Dilemma,” *World Politics* 30, 2 (January 1978), 167–214, <https://www.jstor.org/stable/2009958?seq=1>; and Stephen M. Walt, “Does Anyone Still Understand the ‘Security Dilemma’?,” *Foreign Policy*, July 26, 2022, <https://foreignpolicy.com/2022/07/26/misperception-security-dilemma-ir-theory-russia-ukraine..>

⁴⁷. Gregory F. Treverton, Erik Nemeth, and Sinduja Srinivasan, *Threats Without Threateners? Exploring Intersections of Threats to the Global Commons and National Security* (Santa Monica, CA: RAND Corporation, 2012),.

https://www.rand.org/pubs/occasional_papers/OP360.html; Stewart M. Patrick, “COVID-19, and Climate Change, Will Change the Definition of National Security,” *World Politics Review*, May 18, 2020, <https://www.worldpoliticsreview.com/covid-19-and-climate-change-will-change-the-definition-of-national-security>.

that humanity and nature exist in a steady state, when in fact the potential collapse of the living planet as we have known it is the biggest long-term existential threat we face. There is irony here. Political realists are fond of describing world politics as a Hobbesian “state of nature.”⁴⁸ But they seldom pause to consider the state of nature itself.

The global environmental crisis requires a new statecraft grounded in ecological realism: namely, recognition that the entire human enterprise depends on a healthy, stable biosphere.⁴⁹ Ecological realism does not discard the national interest as a concept but broadens it to encompass the preservation of Earth’s life-support systems as an objective at least as important as the short-term pursuit of military, political, economic, or technological power. It likewise expands the definition of national security to encompass safeguarding the ecological foundations of human survival.⁵⁰

Foreign policy traditionalists may flinch at such a reframing, not wanting to distract diplomats and defense officials from what they call high politics. Times, however, are changing. In 1947, when then U.S. secretary of state George Marshall appointed George Kennan his first director of policy planning, he famously gave the latter just two words of advice: “avoid trivia.”⁵¹ Rather than fixate on daily minutiae, the new office should focus on the big picture

⁴⁸. Kenneth Waltz, *Man, the State, and War: A Theoretical Analysis* (New York: Columbia University Press, 1959); and Jan Niklas Rolf, “The State of Nature Analogy in International Relations Theory,” *International Relations* 28, no. 2 (2014), <https://journals.sagepub.com/doi/abs/10.1177/0047117813502502?journalCode=ireb..>

⁴⁹. Patrick, “The Case for Ecological Realism.”

⁵⁰. For a similar argument, see R. Schoonover, C. Cavallo, and I. Caltabiano, *The Security Threat That Binds Us: The Unraveling of Ecological and Natural Security and What the United States Can Do About It* (Washington, DC: Council on Strategic Risks: 2021), <https://councilonstrategicrisks.org/the-security-threat-that-binds-us..>

⁵¹. Daniel W. Drezner, ed., *Avoiding Trivia: The Role of Strategic Planning in American Foreign Policy* (Washington, DC: Brookings Institution Press, 2009)..

and a longer time horizon. In Kennan's era, that meant containing Soviet communism. Marshall's admonition remains apt, but what counts as important has changed. While a new geopolitical rival, China, looms large, many other items on the U.S. foreign policy agenda—like the future of al-Qaeda or the fate of Nicolás Maduro's regime in Venezuela—seem trivial, at least compared to the fate of the living planet.⁵² The same is true for other national governments.

Any definition of security that does not consider Earth's long-term habitability is inherently suspect. This was something that Jessica Tuchman Mathews recognized back in 1989, when she penned an extraordinarily prescient article on "Redefining Security" for the journal *Foreign Affairs*. For the first time in history, humanity had begun to "alter the environment on a planetary scale," rendering "the assumptions and institutions that have governed international relations in the post-war era . . . a poor fit" for policymakers." Unfortunately, she observed, "Ignorance of the biological underpinning of human society blocks a clear view of where the long-term threats to global security lie."⁵³

"Any definition of security that does not consider Earth's long-term habitability is inherently suspect."

More than three decades later, conditions may finally be ripe for a paradigm shift in foreign policy and international affairs, including in the United States.⁵⁴ Just a week after his inauguration in January 2021, U.S. President Joe Biden issued a historic executive

⁵². Patrick, "The Case for Ecological Realism."

⁵³. Jessica Tuchman Mathews, "Redefining Security," *Foreign Affairs* (Spring 1989), <https://www.foreignaffairs.com/united-states/redefining-security..>

⁵⁴. For a thoughtful if more skeptical take, including on this author's writings, see Daniel W. Drezner, "Is a Planetary Grand Strategy Possible? A Few Thoughts on Non-Traditional Grand Strategies," *Washington Post*, November 16, 2021, <https://www.washingtonpost.com/outlook/2021/11/16/is-planetary-grand-strategy-possible..>

order declaring climate change a top-tier threat to U.S. national security and directing his administration to lead a whole-of-government response to reduce greenhouse gas emissions and adapt to global warming.⁵⁵ Three months later, his director of national intelligence, Avril Haynes, told world leaders assembled for Earth Day that climate change “must be at the centre of our country’s national security and foreign policy.”⁵⁶

The challenge now is to translate these insights into practical action at the national and multilateral level to address the twin crises of climate change and biodiversity loss.⁵⁷ In the United States, that means inculcating this new worldview across U.S. diplomatic, defence, development, energy, environmental, health, intelligence, and other agencies, as well as working with Congress to reshape a massive national security budget still weighted overwhelmingly toward countering traditional geopolitical and military threats.

⁵⁸ Globally, it means collaborating with foreign partners on a multilateral response to slow and reverse the despoliation of the natural world. The United States needs a new “long telegram,” grounded in ecological realism, that spells out a comprehensive strategy to preserve the biosphere.⁵⁹

⁵⁵. White House, “Executive Order on Tackling the Climate Crisis at Home and Abroad,” January 27, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad>.

⁵⁶. Office of the Director of National Intelligence, “DNI Haines Remarks at the 2021 Leaders Summit on Climate,” April 23, 2021, <https://www.dni.gov/index.php/newsroom/speeches-interviews/speeches-interviews-2021/item/2208-dni-haines-remarks-at-the-2021-leaders-summit-on-climate..>

⁵⁷. For one take on what a policy of “natural security” might look like, see Schoonover, Cavallo, and Caltabiano, *The Security Ties that Bind Us*.

⁵⁸. Patrick, “The International Order Isn’t Ready for the Climate Crisis.”

⁵⁹. Katrina vanden Heuvel, “We Need a ‘Long Telegram’ about the Climate Crisis—Not Conflict with China or Russia,” *Washington Post*, November 9, 2021, <https://www.washingtonpost.com/opinions/2021/11/09/why-we-need-long-telegram-about-climate-crisis-not-conflict-with-china-or-russia..>

At the multilateral level, a shift to planetary politics will require national authorities of all nations to adopt a new ethic of environmental stewardship, expanding their concept of sovereign obligation to include a responsibility for protecting the global commons. In parallel, governments, businesses, and communities will need to value and account for Earth's natural capital assets, rather than taking them for granted and exploiting them to depletion.

REFRAMING THE OBLIGATIONS OF SOVEREIGNTY

A shift to planetary politics requires new, shared understandings of sovereign obligations. The world's governments must bring traditional concepts of sovereignty into line with the imperatives of ecological stewardship by endorsing a new state responsibility to protect the global environment. The core obligation should be to refrain from national actions that might fundamentally alter or damage the Earth system.⁶⁰ No such understanding currently exists.

Consider the high-profile ruckus that erupted in August 2019 between the presidents of France and Brazil as tens of thousands of fires ravaged the Amazon rainforest. Emmanuel Macron accused his counterpart, Jair Bolsonaro, of “ecocide” in opening the forest to rapacious loggers, ranchers, farmers, and miners. The indignant Brazilian blasted Macron for treating his country “as if we are a colony or a no-man’s land.”⁶¹

⁶⁰. Stewart M. Patrick, “A Responsibility to Protect the Earth? Reframing Sovereignty in the Anthropocene,” *World Politics Review*, March 2, 2020, <https://www.worldpoliticsreview.com/a-responsibility-to-protect-the-earth-reframing-sovereignty-in-the-anthropocene-2>.

⁶¹. Carl Pires, “The Trump Ally Who Is Allowing the Amazon to Burn,” *New Yorker*, August 28, 2019, <https://www.newyorker.com/news/news-desk/the-trump-ally-who-is-allowing-the-amazon-to-burn>; and Aurelian Breeden and Megan Specia, “Dispute Over

The brouhaha exposed two rival conceptions of sovereignty. For Bolsonaro, Brazil had an absolute right to develop the Amazon at it saw fit. “Our sovereignty is non-negotiable,” his spokesman declared.⁶² For Macron, the rest of the world was no mere bystander but rather a stakeholder in the rainforest’s survival. It could not and would not remain silent as Brazil despoiled this indispensable carbon sink, irreplaceable oxygen source, and precious biodiversity repository. The core debate, in other words, was whether Brazil should be considered the rainforest’s owner or merely its steward.⁶³

“A shift to planetary politics requires new, shared understandings of sovereign obligations.”

The Bolsonaro-Macron dispute will not be the last of its kind, because the environmental policies that states adopt in national jurisdictions can affect other countries. This is most obvious when it comes to greenhouse gases, of course, as emissions anywhere influence the atmospheric total; but it also applies to air and ocean pollution, the destruction of species and ecosystems, rampant overfishing, interruption of the nitrogen cycle, and much more. The logical, if fraught, way to resolve this predicament is to expand sovereign responsibility to include a duty to protect the biosphere. The greening of sovereignty begins with universal

Amazon Gets Personal for Bolsonaro and Macron,” New York Times, August 26, 2018, <https://www.nytimes.com/2019/08/26/world/europe/bolsonaro-macron-g7.html>.

⁶². Rohan Silva, “Amazon Inferno Is a Threat to Us All—and the UN Must Lead the Intervention,” Evening Standard, August 30, 2019, <https://www.standard.co.uk/comment/comment/amazon-inferno-is-a-threat-to-us-all-and-the-un-must-lead-the-intervention-a4225006.html>.

⁶³. Marko Mavrovic, “The Amazon Fires: Responsibility, Obligation, and the Limitations of the State,” Prindle Post, August 30, 2019, <https://www.prindleinstitute.org/2019/08/the-amazon-fires-responsibility-obligation-and-the-limitations-of-the-state>; and Stewart M. Patrick, “The International Order Isn’t Ready for the Climate Crisis.”

acknowledgement that it does not give countries license to despoil the planet.⁶⁴

There are precedents for this sort of shift. Contrary to the mythology of Westphalia, sovereignty has never been absolute or fixed. It has been continually contested, negotiated, and adapted (as well as violated, of course).⁶⁵ The belief that sovereignty implies not just privileges but obligations, and is contingent on the fulfilment of core duties, is by now widely accepted.⁶⁶ States cannot allow terrorists to operate with impunity on their territory, for example. Similarly, governments have a responsibility to protect (R2P) their inhabitants from mass atrocities.⁶⁷

If they fail to discharge either obligation, they may forfeit a presumption against intervention. Some experts have proposed extending this logic to other cross-border harms. Former U.S. secretary of homeland security Michael Chertoff, for instance, posits that states have a sovereign “responsibility to contain” weapons and technology of mass destruction—and that derelict governments should be held to account in a global extension of “the legal principle of nuisance.”⁶⁸

⁶⁴. Patrick, “A Responsibility to Protect the Earth?”

⁶⁵. Stephen D. Krasner, *Sovereignty: Organized Hypocrisy* (Princeton: Princeton University Press, 1999); and Robert H. Jackson, *Sovereignty: The Evolution of an Idea* (Cambridge, MA: Polity Press, 2007).

⁶⁶. Richard N. Haass, “Sovereignty: Existing Rights, Evolving Responsibilities,” Remarks to the School of Foreign Service and the Mortara Center for International Studies, January 14, 2003, <https://2001-2009.state.gov/s/p/rem/2003/16648.htm>; and Bruce D. Jones, Carlos Pascual, and Stephen John Stedman, *Power and Responsibility: Building International Order in an Era of Transnational Threats* (Brookings Institution Press, 2009)..

⁶⁷. Gareth Evans, *The Responsibility to Protect: Ending Mass Atrocity Crimes Once and For All* (Washington, DC: Brookings Institution Press, 2008), <https://www.jstor.org/stable/10.7864/j.ctt4cg7fp>.

⁶⁸. Michael Chertoff, “The Responsibility to Contain: Protecting Sovereignty Under International Law,” *Foreign Affairs* (January/February 2009), <https://www.foreignaffairs.com/world/responsibility-contain>.

“As the planet’s ecological crisis deepens, the world will likely need to articulate and eventually codify a new global norm: a responsibility to protect the Earth.”

The Anthropocene warrants a similar adjustment, since short-sighted national policies can generate dangerous environmental spill overs. Under customary international law, sovereign states already have a general due diligence obligation, known as the no harm rule, not to injure the environment in areas beyond their jurisdiction.⁶⁹ Still, there is little consensus on the precise definition of transnational environmental damage, the spheres to which it should apply, the threshold at which state obligations kick in, or how countries might be held liable for cross-border injuries.

⁷⁰ Witness, for example, the fraught, ongoing debates over whether historic emitters of greenhouse gases should compensate vulnerable developing nations for loss and damage associated with climate change and its repercussions.⁷¹

These questions are becoming trickier as potential sources of damage become more complex. As the planet’s ecological crisis deepens, the world will likely need to articulate and eventually codify a new global norm: a responsibility to protect the Earth

⁶⁹. Ian Brownlie, *Principles of Public International Law*, Seventh Edition (Oxford: Oxford University Press, 2008), 275–285; and Patricia Birnie, Alan Boyle, and Catherine Redgwell, *International Law & the Environment*, Third Edition (Oxford: Oxford University Press, 2009), 143–152.

⁷⁰. Owen McIntyre, “The Current State of Development of the No Significant Harm Principle: How Far Have We Come?,” *International Environmental Agreements: Politics, Law and Economics* 20, no. 4 (December 2020), https://ideas.repec.org/a/spr/ieapple/v20y2020i4d10.1007_s10784-020-09501-8.html.

⁷¹. Abhinav Chugh, “Loss and Damage: Why Climate Reparations Are Top of the Agenda at COP27,” *World Economic Forum*, October 27 2022, <https://www.weforum.org/agenda/2022/10/cop27-why-climate-reparations-are-one-of-the-biggest-issues>.

(R2PE).⁷² Under R2PE, nations would agree not only to avoid generating transboundary harms but more generally to forswear activities that threaten the biosphere's integrity. They would open themselves to external scrutiny, allowing others to monitor and verify their compliance with multilateral commitments. As this regime develops, those guilty of egregious violations could find themselves exposed to sanctions and other penalties.

The first step, of course, is to enumerate the precise obligations accompanying this new ethic of planetary stewardship, so that mechanisms might be developed to hold sovereign states accountable. Helpful advice on where to begin comes from an unlikely source. "What is needed . . .," Pope Francis writes in his 2015 encyclical *Laudato Si* (Praise Be to You), "is an agreement on systems of governance for the whole range of so-called 'global commons.'"⁷³

Technically speaking, "commons" are shared pool resources, like fisheries or pasturelands, that belong to nobody but are open for use by all at no (or minimal) cost. Their inherent vulnerability is their susceptibility to overuse and degradation. In the absence of rules limiting, or charges for, access, actors are tempted to exploit such domains to exhaustion—a dilemma described by Garrett Hardin in his classic article, "The Tragedy of the Commons."⁷⁴

Historically, international law has recognized only four such global commons: Antarctica, the atmosphere, the high seas, and outer space. Nations have consented to treat these domains as part of

⁷². Patrick, "A Responsibility to Protect the Earth?"

⁷³. "Encyclical Letter *Laudato Si* of the Holy Father Francis on Care for Our Common Home," May 24, 2015

https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html

⁷⁴. Garrett Hardin, "The Tragedy of the Commons," *Science* 162, no. 3859 (December 3, 1968), 1243–1248, <https://www.jstor.org/stable/1724745?origin=JSTOR-pdf>.

humanity's shared heritage, avoid exclusive sovereignty claims in each, and encourage their sustainable use.

The Anthropocene will likely require expanding this traditional concept of the global commons to encompass a wider array of vulnerable biomes, ecosystems, and natural cycles critical to the planet's health and resilience, regardless of whether (like the Amazon rainforest) they are contained primarily or even entirely in the territory of a single state or group of states.⁷⁵ This proposition may seem radical, but the biosphere is an integrated whole that is not easily reconciled with state frontiers.

It is the complex product of dynamic interactions among the atmosphere, the cryosphere (or frozen regions), the hydrosphere (including ocean currents and chemistry), terrestrial and marine ecosystems, and the water, carbon, nitrogen, and other biogeochemical cycles.⁷⁶ The impact of human actions on these subsystems, which regulate the planet's climate, rainfall, and temperature, is of concern to all members of our species, regardless of where they dwell.⁷⁷

⁷⁵. N. Nakicenovic et. al., "Global Commons in the Anthropocene: World Development on a Stable and Resilient Planet," International Institute for Applied Systems Analysis Working Paper (October 2016), <https://pure.iiasa.ac.at/id/eprint/14003/>; and Paulo Magalhaes et. al., "Redefining Global Commons in the Anthropocene," Solutions (December 1 2020) <https://thesolutionsjournal.com/2020/12/01/redefining-global-commons-in-the-anthropocene>.

⁷⁶. Naoko Ishi et. al., "Safeguarding the Global Commons for Human Prosperity and Environmental Sustainability: The Global Commons Stewardship Framework," Center for Global Commons, University of Tokyo, May 2022, <https://irp.cdn-website.com/be6d1d56/files/uploaded/Safeguarding-the-Global-Commons-v1.3.pdf>.

⁷⁷. Global Commons Alliance, <https://globalcommonsalliance.org/global-commons>; and Andrew Milner, "Interview: Professor Johan Rockström, Global Commons Alliance," Alliance for Philanthropy and Social Investment Worldwide, October 22, 2019, <https://www.alliancemagazine.org/interview/science-and-philanthropy-join-forces-to-protect-the-global-commons/>.

Getting to agreement will not be easy. Nations will have to agree on the dimensions of the Earth system that ought to be included in this category and update this consensus periodically as scientific knowledge advances. The even more daunting task will be figuring out how to govern these various components collectively, so that humanity can benefit from relevant biomes, ecosystems, organisms, and processes without imperilling their long-term stability and resilience.

While such ambitions might seem impracticable, there are precedents for renegotiating the obligations of sovereignty. In the wake of genocide in Rwanda and the Balkans, the Canadian government sponsored an International Commission on Intervention and State Sovereignty. Its ground breaking 2001 report, *The Responsibility to Protect*, provided the intellectual, ethical, and practical rationale for that new, eponymous norm.⁷⁸ In 2005, UN member states unanimously endorsed R2P, thanks in part to the visionary leadership of the UN secretary general Kofi Annan.⁷⁹ One could imagine the current secretary general, Antonio Guterres, or his successor launching a similar process to protect the global environment.

PUTTING A PRICE ON NATURE: WHAT IS EARTH WORTH?

Planetary politics also implies putting a price on nature. For too long, our dominant economic models have treated the world economy as if it existed apart from the biosphere, ignoring the ecological preconditions for sustainable growth and development.

⁷⁸. ICISS, *The Responsibility to Protect: Report of the International Commission on Intervention and State Sovereignty* (International Development Research Center, 2001), <https://www.idrc.ca/en/book/responsibility-protect-report-international-commission-intervention-and-state-sovereignty>.

⁷⁹. van Simonovic, "The Responsibility to Protect," *UN Chronicle* LIII, no. 4 (December 2016), <https://www.un.org/en/chronicle/article/responsibility-protect>.

We have readily invested in produced capital—like buildings, roads, machines, and software—and human capital—such as education and healthcare—while running down the natural capital that sustains our lives and livelihoods⁸⁰ We have assumed that the Earth would bounce back from whatever we threw at it and that technological innovation and market incentives would allow us to break free from any resource constraints of a finite planet.⁸¹

In the Anthropocene, such attitudes are no longer tenable. Nature is not just something that is nice to have, and its conservation is not merely a “personal virtue,” as then U.S. vice president Dick Cheney infamously put it in 2001.⁸² It is the ultimate foundation for prosperity, and yet we are plundering it.

According to UNEP, the planet’s stock of natural capital has declined 40 percent since 1992. Reversing this trend will require governments, firms, and communities to adopt a more inclusive definition of wealth that encompasses the value of the planet’s natural assets and the myriad benefits they provide humanity.⁸³

These benefits fall into three broad categories. Regulatory services are the functions that healthy organisms and ecosystems play in creating conditions conducive to human life, including by controlling pests and disease, cycling nutrients, determining air quality, enriching soil, filtering water, pollinating crops,

⁸⁰. The concept of natural capital was pioneered in particular by Stanford University professor Getchen C. Daily. See Gretchen C. Daily, *Nature’s Services: Societal Dependence on Natural Ecosystems* (Island Press, 1997). See also Peter Kareiva, ed., *Natural Capital: Theory and Practice of Mapping Ecosystem Services* (Oxford: Oxford University Press, 2011), <https://academic.oup.com/book/26318>.

⁸¹. Stewart M. Patrick, “To Save the Natural World, Put a Price on It,” *World Politics Review*, May 3, 2021, <https://www.worldpoliticsreview.com/ecological-realism-is-the-key-to-conserving-biodiversity>.

⁸². Martin Kettle, “Cheney Tells US To Carry On Guzzling,” *Guardian* (May 10, 2001), <https://www.theguardian.com/world/2001/may/10/dickcheney.martinkettle>

⁸³. UN Environment, *Inclusive Wealth Report 2018*
<https://www.unep.org/resources/inclusive-wealth-report-2018>.

sequestering carbon, and buffering the impact of floods and storms. Provisioning services encompass the direct material benefits humans obtain from nature, such as from fiber, food, fuels, genetic resources, plant-based medicines, and timber. Finally, nonmaterial services include the multiple subjective psychological, recreational, and spiritual benefits humans derive from the living Earth.⁸⁴

Many environmentalists resist placing a monetary value on nature, citing its intrinsic worth and bridleing at its perceived commodification⁸⁵ But failing to do so encourages firms and individuals, as well as governments, to take ecosystem services for granted and, because they are under-priced (or not priced at all), to exploit them to exhaustion. The result is market failure, in the form of environmental costs borne not by the participants in any specific exchange but by society as a whole (what economists call “negative externalities”).

”According to the World Economic Forum, 50 percent of all global output, worth \$44 trillion per year, is highly or moderately dependent on benefits from nature.”

There is no inherent contradiction between capitalism and conservation, between the pursuit of profit and environmental stewardship. Reconciling the two, however, requires a new mindset and new approaches to valuing nature, not only on the part of

⁸⁴. Sandra Diaz et. al., “Assessing Nature’s Contributions to People,” *Science* 359, 6373 (January 19, 2018), 270–272

<https://science.sciencemag.org/content/sci/suppl/2018/01/18/359.6373.270.DC1/aap8826-Diaz-SM.pdf>.

⁸⁵. Ehsan Masoon, “A Battle for the Soul of Biodiversity,” *Nature*, August 22, 2018, <https://www.nature.com/articles/d41586-018-05984-3>. For a thoughtful commentary on the topic, see Tom Oliver, “Nature: How Do You Put a Value on Something That Has Infinite Worth,” *The Conversation*, February 5, 2021, <https://theconversation.com/nature-how-do-you-put-a-price-on-something-that-has-infinite-worth-154704>.

ecologists but also from participants in the global marketplace who have tended to ignore the fate of the biosphere. Belatedly, some capitalists and economists are acknowledging the inadequacy of orthodox approaches to growth. According to the World Economic Forum, 50 percent of all global output, worth \$44 trillion per year, is highly or moderately dependent on benefits from nature—benefits that are increasingly in jeopardy.⁸⁶ Another study places the total annual value of the planet's ecosystem services between \$125 trillion and \$145 trillion.⁸⁷

In February 2021, a multischolar team led by the British economist Sir Partha Dasgupta published *The Economics of Biodiversity*. Quickly dubbed “the Stern Review for biodiversity,” this landmark study repudiated the assumption that human ingenuity and market incentives can deliver perpetual growth and development regardless of their impact on the biosphere.⁸⁸ The world economy is inextricably embedded in nature, and yet GDP, the conventional measure of wealth and progress, neither accounts for nor promotes

⁸⁶. World Economic Forum, “Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy,” January 19, 2020, <https://www.weforum.org/reports/nature-risk-rising-why-the-crisis-engulfing-nature-matters-for-business-and-the-economy>.

⁸⁷. Robert Costanza et. al., “Changes in the Global Value of Ecosystem Services,” *Global Environmental Change* 26 (May 2014), 152–158, <https://www.sciencedirect.com/science/article/abs/pii/S0959378014000685>.

⁸⁸. Sir Partha Dasgupta, *The Economics of Biodiversity: The Dasgupta Review*, abridged version (London: HM Treasury, 2021)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957292/Dasgupta_Review_-_Abridged_Version.pdf. The Stern Review was a landmark study of the economic consequences of climate change, published in 2006. See “Stern Review Final Report,” UK National Archives, archived on April 7, 2010, accessible

at https://webarchive.nationalarchives.gov.uk/ukgwa/20100407172811/https://www.hm-treasury.gov.uk/stern_review_report.htm.

the conservation of natural capital, making it a poor indicator of well-being and long-term productive capacity.⁸⁹

Mainstreaming natural capital accounting requires governments and businesses to track such assets, incorporate them into balance sheets, and commit to transparency regarding their stewardship.

⁹⁰ In March 2021, the United Nations released an updated framework for standardized ecosystem accounting to facilitate this. Some ninety countries—including EU members and more than forty developing nations, but not yet the United States—have produced baseline natural capital accounts.⁹¹

Governments must also deploy incentives and adopt regulations to motivate or require firms to shoulder the ecological costs of their market behaviour, rather than continuing to pass these along to society. Too many of nature's goods and services are overexploited because they have no price—or even a negative price, thanks to perverse subsidies. According to the Dasgupta review, the world's governments spend some \$4–\$6 trillion on environmentally damaging subsidies, including for agriculture, fisheries, fuel, and water.⁹² By contrast, they devote only \$68 billion annually to global conservation and sustainability—approximately what their citizens spend on ice cream. Exposing the true costs of these

⁸⁹. UN Environment Programme, “Beyond GDP: Making Nature Count in the Shift to Sustainability,” February 7, 2022, <https://www.unep.org/news-and-stories/story/beyond-gdp-making-nature-count-shift-sustainability>.

⁹⁰. See the Natural Capital Protocol developed by the Capitals Coalition, accessible at https://capitalscoalition.org/capitals-approach/natural-capital-protocol/?fwf_filter_tabs=guide_supplement..”.

⁹¹. UN Statistics Division, “Global Assessment of Environmental-Economic Accounting and Supporting Statistics 2020,” March 2021, https://unstats.un.org/unsd/statcom/52nd-session/documents/BG-3f-2020_GA_report_%20draft_%20ver7_nomap-E.pdf.

⁹². Dasgupta, *The Economics of Biodiversity*, 39–41..”.

subventions could make it more likely that governments will reduce and ultimately eliminate them.

Conclusion

“Making peace with nature is the defining task of the [twenty-first] century,” U.N. Secretary General Antonio Guterres has declared.

⁹³ Indeed, it poses the greatest collective action challenge humanity has ever faced. Preserving the ecological foundations for human civilization requires above all a change of mindset: recognizing that our species must live in harmony with, and become wise stewards of, a biosphere in which we are deeply and inescapably embedded. Success in this endeavor will require not only arresting climate change but safeguarding biological diversity and the innumerable benefits we obtain from healthy ecosystems. As the late, famed evolutionary biologist E. O. Wilson wrote, “Biodiversity as a whole forms a shield protecting each of the species that compose it, ourselves included.” ⁹⁴ We ignore it—and abuse it—at our peril.

The predicament we confront is encapsulated in the dueling cartographies that have vied for our attention ever since we opened our first atlas as children. It likely began with two distinct maps. The first, geophysical one, captured the world in its natural state, revealing a startling array of biomes and ecosystems—rainforests and savannas, steppe and taiga, mountains and glaciers, river valleys and deserts, icecaps and tundra, remote atolls and barrier reefs, continental shelves and deep-sea trenches—shading into one

⁹³. “U.N. Secretary General: ‘Making Peace with Nature Is the Defining Challenge of the Twenty-First Century,’” United Nations Climate Change, December 2, 2020, <https://unfccc.int/news/un-secretary-general-making-peace-with-nature-is-the-defining-task-of-the-21st-century#:~:text=Pointing%20out%20the%20dire%20current,task%20of%20the%2021st%20century..>

⁹⁴. Edward O. Wilson, *Half-Earth: Our Planet’s Fight for Life* (New York: W. W. Norton, 2016).

another in often jagged and overlapping ways. The second, geopolitical one, depicted Earth's terrestrial surface carved into precise lines demarcating independent territorial units, each colored distinctly from its neighbors, with a star indicating its capital.⁹⁵

"The crisis of the biosphere has forced a collision of these two maps, exposing the tension between an integrated natural world and a divided world polity, demanding that we reconcile the two."

These dueling cartographies have always been jarring, and it's not always clear how they shape and relate to one another. The first, like the famous "Earthrise" photograph taken by astronauts aboard Apollo 8, is clearly the more authentic representation of our planet.⁹⁶

The second, with its artificially imposed borders, is akin to a work of fiction—and yet people tend to treat it as more important. The crisis of the biosphere has forced a collision of these two maps, exposing the tension between an integrated natural world and a divided world polity, demanding that we reconcile the two.⁹⁷

National sovereignty is here to stay, but a new worldview grounded in ecological realism could help close the distance between the political and natural worlds. While paradigm shifts are rare in world politics, the arrival of the Anthropocene is a transformative moment, underlining humanity's common destiny. Our predicament cries out for new thinking about our relationship to the Earth and how new forms of international cooperation might permit us to survive and even repair the damage we have done to our common home. It cries out for planetary politics.

⁹⁵. Patrick, "The International Order Isn't Ready for the Climate Crisis."

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Trends in the Arab Investigative Reporting:

The Role of Investigative Reporting in Political Reform in the Arab World

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ABSTRACT

The importance of investigative journalism stems from its roles, such as making severe decisions regarding political reforms, officials' accountability, and increasing credibility. Therefore, investigative reporting aims to reveal corruption and inappropriate behavior in the government, non-government facilities, or publishing hidden news. Furthermore, the role of investigative journalism can also be an element of pressure on the authorities to make deterrent or decisive decisions. This paper examines the role of investigative reporting in making reforms despite the Arabian regimes' strict control of the media system. The researchers interviewed three prominent and qualified Arabian investigative journalists who have conducted several investigations and won local and global awards for their hard work. This paper found that Arab investigative reporters face challenges that are more problematic and difficult than the barriers for foreign journalists. Furthermore, there is no suitable working environment for investigative journalists in the Arab world because of the strict state control. That does not mean there is no investigative journalism, but that means Arabian investigative journalists face a lot of additional pressure at work. Non-profit and

foreign media organizations with Arabic versions, such as BBC, assist Arab journalists in investigating and distributing their investigations. Moreover, this paper found that some heads of Arab states gain traction and popularity for their intervention in making reforms. Still, most of these interventions are temporary reactions, and corruption reappears once the direct intervention has concluded. Ultimately, rulers in the Arab world carefully know that freedom of the press is one of the most sacred constitutional rights, but it is no longer than ink on paper. However, they still make some decisions unless the investigators directly attack them and their policies.

KEYWORDS: *Investigative reporting; State control; Non-profit media, Arab states.*

INTRODUCTION

In order to represent the public and reveal illegal activity so that perpetrators can be brought to justice, investigative journalism is a crucial part of local communities (Burgh, 2008). In order to avoid censorship and government control (Hamdy, 2009), citizen journalism has become popular in the Arab world (Deen & Pan, 2021). Regular citizens can now contribute news through blogging and social media (Ahmad, 2022; Deen & Pan, 2022; Safori et al., 2016). Investigative reporting gained popularity due to the Arab Spring, which enabled Arab journalists to concentrate on it and overturn earlier media limitations (Hamdy, 2013). The public and media outlets can now conduct investigations, creating high-quality material (Alrajhi, 2017; Alzyoud, 2022).

Due to the Arab Spring revolutions, investigative citizen journalism has become significantly more important in the Arab world (Alrajhi, 2017).

There is little research on investigative journalism in the Arab world; the studies that do exist primarily examine the perspectives of media producers and examine the development, views, and social-political effects of the practice (Alzyoud & Makharesh, 2023; Bebawi, 2016; Deen & Pan, 2022; Hamdy, 2013; Makharesh, 2018; Makharesh et al., 2022). However, investigative reporting, including the roles that investigative reporting might play, must be studied because greater openness, democratic information access, and increased public trust are all achieved (Deen & Pan, 2022; Khushaim, 2022).

In this paper, the researchers examine the role of investigative reporting in making reforms despite the strict control of the media system in the Arab world. The researchers examine how investigative work operates in the Arab world by creating a model that allows us to understand how investigative reports led to urgent reforms in the Arab world. Our main contention in this paper is that the rhetoric of uncommitted and discouraged media professional journalists incorrectly assumes that investigative reporting is a method of journalism that will not induce any change. In fact, these rhetoric's of distrust justify gridlock by not giving numerous Arabian investigative reporters the appreciation they deserve for their extensive efforts. Therefore, investigative reporting is an essential media method that provides the occasion to take stock of political, democratic, and media performance.

LITERATURE REVIEW

Investigative Journalism: Definition and Origins

Investigative reporting has been extensively examined, especially in the country where it was first practiced—the United States. The American Revolution, the period known as the Progressive Era, and the mid-1960s to mid-1970s have been designated as the three cycles of investigative journalism (Feldstein, 2006). The Pentagon

Papers, the My Lai Massacre, and Watergate were important stories during the last wave, which saw the institutionalization of investigative journalism as a distinct paradigm (Hamdy, 2013). Global effects have resulted from the founding of groups like Investigative Journalists and Editors (IRE) and the Global Investigative Journalistic Network (GIJN) (Burgh, 2000; Houston, 2010). The Arab Reporters for Investigative Journalism (ARIJ), which exposes political and other types of corruption or scandal, is a model of investigative journalism in the Arab world (Aucoin, 2005). Beginning in Sweden and Western Europe and spreading to Latin America and other areas, this significant paradigm has been adopted worldwide (Burgh, 2000; Feldstein, 2006; Houston, 2010). According to numerous academics and media sources (Aayeshah & Bebawi, 2015; de Burgh, 2008; Ettema & Glassers, 1998; Hunter, 2012), investigative journalism is a subclass of journalism that attempts to unearth the truth and expose controversial subjects. Investigative journalism has a long history in the Arab world, beginning with the early efforts of journalists like Mohammad Hassanein Heikal and Ihsan Abdul Qudous in the 1950s and 1960s (Bebawi, 2016; Sabbagh, 2016).

Investigative journalism was intended to be promoted throughout the area when Arab Reporters for Investigative Journalism (ARIJ) was founded in 2005 (Sabbagh, 2016). Investigative journalism is essential to democratization because it highlights ineffective laws, promotes a liberal political climate, and aids in democratic governance (Makharesh et al., 2022). The people can now contribute news and expose wrongdoing while professional journalists continue to provide context and identify important concerns thanks to technological developments in media creation (Scott et al., 2015).

Investigative journalism, which covers a wide range of subjects including politics, law, society, culture, and psychology, has

historically played a significant role in democratizing nations by exposing covert decisions and discourses (Marques, 2023). It represents the public's voice by bringing to light hidden information, exposing wrongdoing, and holding offenders accountable (Broughton, 2019; Carson, 2019; Islam, 2021). Additionally, it puts pressure on authorities and sways opposing opinions. Media organizations have incorporated investigative journalism into their courses in recognition of its importance. Investigative journalism has produced notable results in the Arab world, pressuring decision-makers to take essential steps (Almazrouei et al., 2020).

Arab States' Strict Control on Media

Although it has historically been heavily censored and under government control, Arab mass media has long been an important part of daily communication (Bebawi, 2016; Rugh, 2004). Governmental agendas and policies were communicated to the public by state-run media outlets (Rugh, 2004). However, recent events have made it possible for some opposition and dissident voices to be heard in Arab media, which has resulted in a change from exclusive discourse to a more inclusive one (Lahlali, 2016). Traditional Arab media sources continue to be subject to strict supervision, while new media platforms encounter additional difficulties because of particular laws and rules (Shishkina & Issaev, 2018). Arab media is gradually adopting new responsibilities intended to promote growth and nation-building in this shifting environment (Makharesh, 2018).

State control has historically been a significant component in the Arab media landscape, which has varied substantially across various nations and areas (Rugh, 2004; El Oifi, 2019; Zayani, 2019). Investigative reporting, which was considered a foreign practice, had difficulties in Arab media systems, emphasizing the

absence of a consistent strategy (Bebawi, 2016; Rugh, 2004). It was highlighted by the stark differences in the dynamics of the media systems in Lebanon and Syria and how diversified the Arab media is (Haider et al., 2021). Rugh (2004), in this regard, divided Arab media systems into four groups: tactical, pro-government, diverse, and transitional. Each group was distinguished by varying degrees of press freedom and government engagement.

In the Arab world, the most recent political transformations, which were witnessed after the Arab Spring revolutions in 2011, strengthened the status and importance of investigative journalism practice (see Badr, 2021; Moore-Gilbert & Abdul-Nabi, 2021). The role of investigative journalism in the enhancement of democracy in the Arab world is a controversial issue because it raises many complex questions about the limits of the impact of investigative journalism on the creation of a liberal political environment and contributes to the production of democracy.

Bebawi (2016) wrote the book titled “Investigative Journalism in the Arab World: Issues and Challenges” and assured that journalists in the Arab world face various challenges. Bebawi continued to emphasize that Arab investigative journalists face difficulties such as funding and political restrictions across the world. Challenges faced by each Arab country are also linked to other factors, such as social norms, the culture of journalism, and funding issues (Fakhoury, 2019; Makharesh, 2018).

Investigative Journalism Towards Policy Reforms

In the wake of the Arab Spring, investigative reporting practice gained significant momentum in revealing the defects in State institutions, monitoring the performance of political and community institutions more effectively and very boldly (see Badr, 2021; Moore-Gilbert & Abdul-Nabi, 2021). Thus, Arab journalists quickly developed their investigative skills by applying to

investigative journalism institutions to reach professionalism and gain the necessary support to conduct their investigations officially (see Moldovan, 2020; Moore-Gilbert & Abdul-Nabi, 2021; Zhang & Wang, 2022).

Therefore, several of the Arab and foreign investigative institutions welcomed the opportunity to work with this motivated generation of journalists. The Global Investigative Journalism Network (GIJN) and Arab Reporters for Investigative Journalism (ARIJ) are transparent sources of investigative institutions that have helped to rehabilitate large numbers of journalists from all over the Arab world (Global Investigative Journalism Network, 2023).

As the first non-profit devoted to educating and promoting investigative journalism in the Arab world, the Arab Reporters for Investigative Journalism (ARIJ) was founded in Amman, Jordan, in 2005 (Bebawi, 2021). In order to equip Arab journalists from diverse nations with the investigative skills they need, ARIJ has held workshops and trained them (Makharesh, 2018). ARIJ has a policy of entering into contracts with trainees, who are then given assistance by ARIJ to carry out their inquiries and locate appropriate media channels to present their work.

By enhancing the capacities and competencies of media professionals, ARIJ seeks to advance the culture of investigative journalism, according to Bebawi (2019). Through its work, ARIJ has been successful in developing a new generation of Arab journalists who have carried out essential investigations and contributed significantly to the field.

Several investigative reports resulted in actions such as the establishment of commissions, legislative changes, and judicial investigations. The “Radioactive Hills” is an investigative report that demonstrated the unsafe treatment of phosphate hills in Rusayfah, Jordan. Consequently, King Abdullah II of Jordan worked to set up a special commission to hold and arrest all

perpetrators and bring them promptly to trial and compensate those affected (ARIJ, 2016). In Egypt, the Egyptian Cabinet approved a bill to amend inheritance laws following an investigation highlighting the absence of legislation protecting women's inheritance rights and using the "Al-Radwa" custom to settle inheritance cases. Two months after the “Children without Descent” investigation, the Syrian government launched a law to care for people of unknown descent (Mahmoud, 2018).

Palestinian investigative journalist Mahmoud Haniyeh disclosed corruption in the Palestinian Naval Unit that has allowed illegal fishing in the Port of Gaza. Haniyeh's investigation exposed the legal violations that the Maritime Police Authority is implementing in Gaza. As a result of this, the Legislative Council formed a fact-finding committee that recommended referring the agency's officials to the judicial investigation (Mahmoud, 2018).

The Political Practice in the Arab World

For there to be freedom on the globe, political and civil liberties must be evaluated. These liberties include those related to elections, creating political parties, and defending different citizen rights (Karatnycky, 2002). By serving as a watchdog, pursuing the truth, and giving various viewpoints on important matters, journalism plays an essential role in a democratic society (McChesney, 2004). Journalism and democracy are intertwined, with journalism requiring a democratic atmosphere for autonomous practice and democracy depending on journalism for accountability (Pajnik & Hrženjak, 2022; Trappel & Tomaz, 2021). Investigating powerful authorities may raise concerns about the support and freedom given to journalists, which poses difficulties for investigative journalism and democracy in the Arab world due to political and cultural reasons (Bebawi, 2019).

In contrast to advancements for democracy in areas like Latin America, Africa, East-Central Europe, and South and East Asia over the past two decades, the Arabian world has seen an upsurge in repressive governments (Karatnycky, 2002). In 2002, instability in the Arab world put mature democracies, democratic governments, and market systems in jeopardy. However, some leaders took advantage of this instability to strengthen democracies and develop democratic practices (Karatnycky, 2002).

Around two-thirds of the world's population or two billion people, are said to reside under repressive regimes, according to Freedom House (Noir, 2015). Due to the severe state control of the media, the practice of investigative journalism in the Arab world raises issues, prompting the query of how Arab investigative journalists continue their work, as noted by Noir (2015). The best way to address this point is to design a model that describes the entire process of investigative reporting (see **Figure 1**).

Model Discussion:

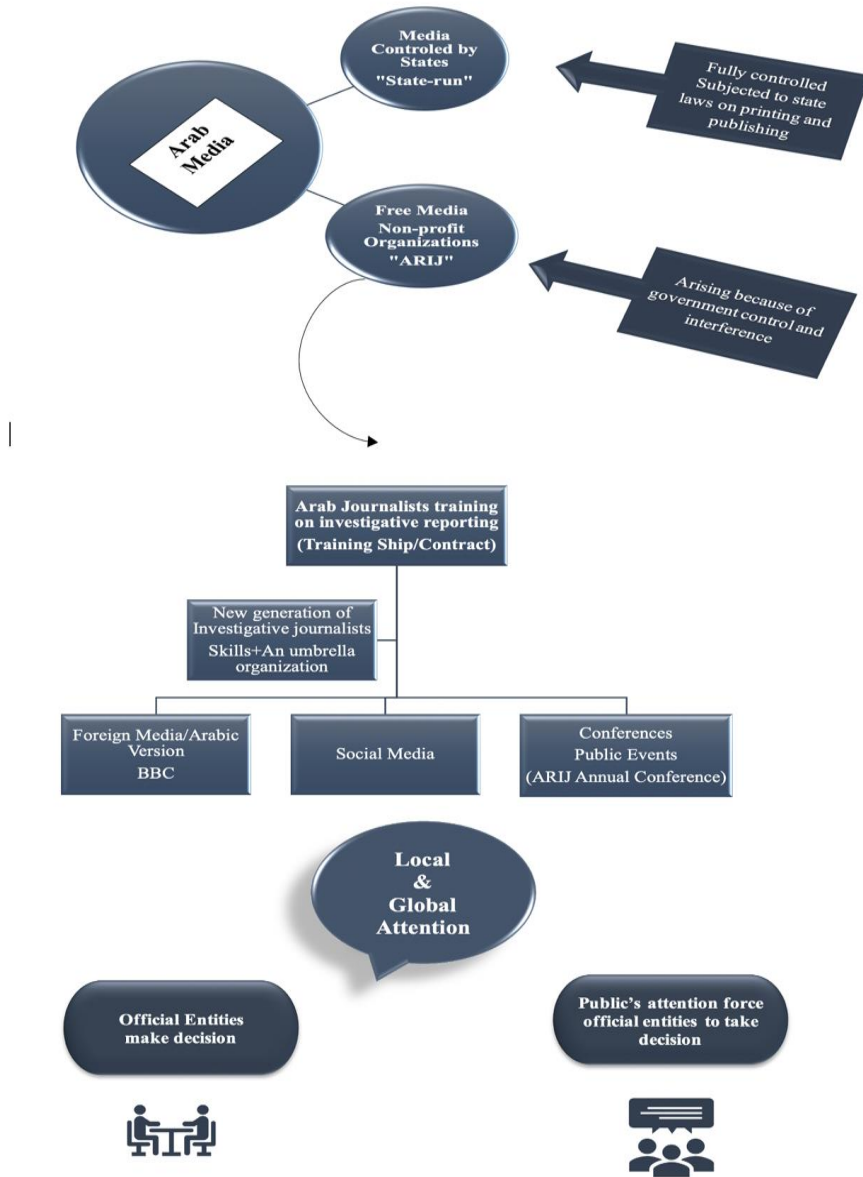


Figure 2. Arab Investigative Reporting Mechanism

Investigative journalism in the Arab world persists despite strict control by Arabian regimes (Badr, 2021; Makharesh, 2018). Arab media originated from oral and print media forms, with the first Arab newspaper published in Baghdad in 1816 (Rugh, 2004). As radio stations emerged in the 1920s, governments in the region swiftly asserted control over media platforms (Lahlali, 2011). Back to the model, this led to two types of media: state-controlled outlets and independent organizations like Arab Reporters for Investigative Journalism (ARIJ) (El Oifi, 2019; Zayani, 2019).

While state-run media occasionally conducted investigations focusing on trivial matters, non-profit organizations like ARIJ trained and supported investigative journalists who relied on foreign media channels such as BBC and social media platforms to share their work (Bebawi, 2021; Pickard, 2019). Investigations carried out by these skilled reporters gained attention and brought important issues to light. Some investigations even influenced decision-making by rulers, showcasing the impact of investigative reporting (Al-shawabkeh, 2020). Despite the challenging circumstances imposed by Arabian regimes, investigative journalism in the Arab world remains crucial in uncovering hidden truths and ensuring accountability (Al-Shami, 2020).

Throughout this model, it fosters competition among media outlets, enhances journalistic skills, and catalyzes political reforms (Culloty & Suiter, 2021). Notably, ARIJ's investigations have yielded significant results, such as prompting legislative debates in Lebanon, investigations by the Egyptian Ministry of Health, draft laws in Syria, and demands accountability in Jordan (ARIJ, 2018). These cases exemplify the impact and importance of investigative journalism in the Arab world.

RESEARCH QUESTIONS

RQ1) How does investigative reporting contribute to achieving reforms in the Arab world despite the stringent control of the media system?

RQ2) How do Arab investigative reporters find fundamental support and a place to share their work?

RQ3) How do Arabs, and state authorities interact with investigative reports?

RQ4) What are the reforms that have been taken due to investigative reports?

METHOD

Using purposive sampling, an in-depth interviews with three participants who are considered to be experts on investigative reporting were explicitly chosen for this qualitative study. Therefore, this study is based on the experiences of three chosen journalists because they had representative and accumulated sets of experiences in investigative reporting, particularly in the Arab world (see Creswell, 2016). Therefore, they offer insightful and significant contributions to this study, which focuses on the Arab region, with their thoughts and insights.

Sample

This study involves three journalists who have dedicated their careers to investigative and citizen journalism in the Arab world. Purposive sampling is used in this study because it enables the deliberate selection of a population that most closely matches the phenomenon or topic being studied (Creswell, 2016). The informants were carefully selected based on their extensive experience and active involvement in investigative journalism in the region. **Informant #1**, Mark Lee Hunter, is an American investigative journalist who collaborated with Arab Reporters for Investigative Journalism (ARIJ) and contributed to the development of the manual "Story-Based Inquiry." **Informant #2**, Hanan Khandakji, is a Jordanian journalist known for her impactful investigations, including exposing corruption and shedding light on issues such as the mistreatment of phosphate hills and violations against children with special needs in care centers. Her work caught the attention of King Abdullah II of Jordan, who took immediate action to address the issues. **Informant #3**, Mus'ab Alshawabkeh, is an award-winning investigative journalist who played a significant role in establishing investigative reporting units and participating in the Panama Papers investigation.

Alshawabkeh also has extensive experience teaching investigative journalism to Arab journalists.

Interview Guide and Instrument

The researchers examine the perspectives of three participants who prefer online interviews over in-person ones because they are difficult to reach or live a long way apart. Since the early 1990s, detailed email interviews have been done successfully (see Murray, 1995–1996; Meho, 2006). The researchers conducted online conversations with potential participants to enlist informants for their research on investigative journalism. They were successful in doing so because of the participants' enthusiasm for the subject. Open-ended questioning techniques were used to ask the informants the questions at their convenience. To achieve the goals of the study, a semi-structured procedure containing open-ended questions was developed (See Appendix A).

DATA COLLECTION

Through their professional emails and the authors official emails, the informants of this study responded to the paper's queries. Each participant responded to the questions in a separate email. After receiving the responses, the researchers carefully analyzed each one responses. We received every response and saved it as an official transcript. The informants first received and returned the research questions and consent forms.

RESULTS

M.H. defined investigative reporting as something public that the audience was unaware of or that the investigative journalists had covered and unveiled. H.K. and M.A. draw attention to the Arab world's lack of knowledge and respect for investigative journalism. Media producers don't understand how time- and resource-consuming it is for journalists to spend months away from their desks to conduct a 45-minute inquiry. While M.A. views investigative journalism as revealing hidden facts through unearthing secrets or connecting unrelated bits of information,

H.K. underlines the need for chief editors to support and comprehend it. They observe the availability of the material in English and commonly run into these difficulties in Arab nations.

According to M.H, there is no difference between using investigative journalism abroad and in the Arab world. M.H. made sure that in the Arab world, investigative journalism is pressuring officials to respond to it. The Arab world, according to M.H., is a revolutionary region. It will be exceedingly challenging for journalists to produce that kind of job. H.K. and M.A. also draw attention to the Arab world's limited comprehension and appreciation of investigative journalism. H.K. underlines the necessity for chief editors' support and comprehensive comprehension of the advantages it delivers. Media producers frequently fail to comprehend how time- and resource-intensive investigative work is.

M.H. responded that it is highly unpleasant for politicians to be swayed by the media. He continued by saying that, to his knowledge, no media sector has ever been able to function for an extended period of time as nothing but an enemy. Despite government control over the media, investigative journalism continues to exist in the Arab world. Nonprofit organizations and independent journalists have nurtured investigative talent that has attained attention and success. However, compared to their international counterparts, Arab investigative journalists confront more significant restrictions and barriers, making it difficult for them to cover more extensive subjects. M.A. adds that because head-of-state interventions are transient and corruption reemerges once the intervention is over, investigation findings frequently fall short of bringing about long-term reforms.

According to the three informants, the main challenge for investigative journalism in the Arab world is a lack of information. The informants of this study continued by saying that the chief editor is the investigative journalist's primary foe. Additionally, there is no funding available in Arab media institutions for this kind of reporting. For example, the chief editor is ready to spend \$10,000 on a Mercedes car but will not spend

\$200 on a reporter who is going to a potentially remote place to write an inquiry report.

CONCLUSION

In this essay, I have argued that Arab investigative journalists are hardly working in the field and their investigative reports assist in making reforms despite the Arabian regimes' strict control on the media system. Investigative journalism takes a particular goal at uncovering the truth and bring it to the public. This role can be hardly practiced in repressive regions such as the majority of the Arab countries.

Despite the state strict control over the media outlets, individual journalistic attempts have successfully conducted investigative reports and distributed them either through social media platforms or by traditional media sources. Those reports have achieved numerous citizens' and rulers' attractions. As a practice that engages analysis, a negative vision also might be existed by media practitioners towards the important role that investigative reports may have. Envisioning an investigator who practices investigative reports in the Arab world, non-profit media organizations have helped this new generation of investigators to move forward to transfer their proposals into visual, written, and audio investigative reports.

It is not possible to mention democracy without investigative journalism because it is the muscle of democracy. As mentioned, the goal of investigative reporting is to reveal the truth and create a balance and stability between the two opposing points of view. This is why some officials and rulers take serious decisions and pay attention to some investigations. They highly consider the role that investigative journalistic tools can inspire and motivate the public to look, understand and act in the interest of the word "democracy." Ultimately, rulers in the Arab world carefully know that freedom of

the press is one of the most sacred constitutional rights, but it is no longer than ink on paper. However, they still make some decisions unless the investigators directly attack them and their policies.

APPENDIX A:

Interview Protocol

- 1) How would you please, define investigative journalism?
- 2) What are the needs of investigative journalists?
- 3) How did social, cultural, and political factors shape the formation of the concept of investigative journalism in the Arab world?
- 4) How does Eastern investigative journalism practice differ from investigative reporting in the West?
- 5) How can citizen investigative journalism explore new and hidden issues?
- 6) How easily can Arab investigative reporters investigate new and hidden issues?
- 8) Will Arab investigative reporters in the Arab world face any risks or negative impacts in their lives as investigative journalists? How?
- 9) What difficulties might Arab investigative reporters face and expose due to their work?
- 10) What is the relevance of the role that investigative journalism has played in pressuring Arab governments to enact reforms?
- 11) What functions does investigative journalism have in putting pressure on Arab leaders to enact change and reform?
- 12) What effect does investigative journalism have on government policies and their capacity to implement long-term reforms in the Arab world?

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Le droit international relatif aux droits de l'homme et la protection de l'être humain : réalité et perspective

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Résumé :

Le droit international relatif aux droits de l'homme dont la mission est la sauvegarde de la dignité de l'être humain s'applique en tout temps et toutes circonstances hormis certaines de ses règles qui peuvent faire l'objet de dérogation ou de limitation lorsque la situation l'exige c.-à-d. des droits et libertés sont codifiées et des procédures et des mécanismes internationaux pour en assurer le contrôle et le respect sont implantés. A travers une approche juridique, le présent papier tente de savoir dans quelle mesure le Droit international relatif aux droits de l'homme assure une protection effective et équitable aux êtres humains ? L'objectif est de relever les lacunes en la matière et en proposer des recommandations pour y remédier.

Mots clés : *Droit international relatif aux droits de l'homme, Protection, Etre humain. Droits et libertés individuelles,*

Introduction

Nul ne peut contester que le Droit international classique se souciait plus de la protection de l'intégrité territoriale des Etats souverains que de la protection de l'intégrité physique et morale des individus composant ces États⁹⁸. Ce sont les massacres commis lors de la deuxième guerre mondiale qui ont poussé la communauté juridique internationale à accordé aux individus une protection contre leurs propre Etat vue que la protection strictement nationale n'a pas pu empêcher les dérives majeures et les violations massives des droits de l'homme.

Ainsi, la communauté internationale, consciente de la nécessité de limiter la souveraineté des Etats à travers la reconnaissance à l'échelon supra-étatique des droits élémentaires à l'individu et d'implanter des procédures et des mécanismes internationaux pour en assurer le respect, s'est mis d'accord pour la codification des droits qui sont inhérentes à la personne humaine par le simple fait de son appartenance à l'espèce humain et qui s'imposent à tous les Etats : après la Déclaration Universelle des Droits de l'Homme du 10 décembre 1948, deux Pactes internationaux ont vu le jour : le Pacte International relatif aux Droits Civils et Politiques communément appelé Pacte II et le Pacte International relatif aux Droits Économiques, Sociaux et Culturels (Pacte I), répondant respectivement aux idéologies dominantes à l'époque à savoir le libéralisme et le communisme. Ces trois instruments forment ce qu'on nomme la Charte internationale des droits de l'homme qui constitue la pierre angulaire, voir la trame du

⁹⁸COMPAGNA Norbert, La souveraineté: de ses limites et ses juges, éd. PUL, Québec, Collection Diké, 2008, p. 11

Droit Internationale relatif aux Droits de l'Homme (ci-après DIDH)⁹⁹.

Depuis une panoplie d'instruments juridiques de différentes caractère et nature ont vu le jour en la matière (régional ou international, général ou spécifique, contraignant ou facultatif). Parallèlement des mécanismes assurant leurs mises en œuvre ont été créé, leurs objectif commun est la protection de l'être humain.

En fait, l'objectif de ce papier est de montrer que malgré l'évolution constatée en matière de protection des êtres humains par le Droit international relatif aux droits de l'homme, sa mise en œuvre est loin de traduire tel avancement.

Avant de le faire et afin de mieux saisir notre sujet, il nous appartient d'abord de définir : le Droit International relatif aux droits de l'homme, la protection, et le terme équitable.

Le Droit International relatif aux droits de l'homme :

Il s'agit d'un « *ensemble de règles internationales d'origine conventionnelle ou coutumière, sur la base desquelles les individus ou les groupes peuvent escompter et/ou exiger un certain comportement ou certains avantages de la part des États. Les droits de l'homme sont des droits inhérents à chaque individu, en tant qu'être humain* »¹⁰⁰. Cette branche du Droit International Public a pour but la protection de l'être humain.

Equitable : le terme renvoie à ce qui est conforme à l'équité, notamment à ce qui est conforme en soit au sentiment de justice,

⁹⁹BAKRI Karima, La protection de l'individu dans les situations de troubles et tensions internes au regard du droit international, Université Cadi Ayyad, FSJES Marrakech, 2023, p. 70

¹⁰⁰CICR (éd), Droit international humanitaire et droit international des droits de l'homme : Similitudes et différences, 2/2023, p. 1, in <http://international-review.icrc.org/fr>, consulté le 14 octobre 2023 à 22h

sans arbitraire et sans discrimination, à ce qui correspond à une justice distributive à l'échelle collective¹⁰¹.

En fait, le terme équité, au sens général, signifie l'application de la justice dans un cas d'espèce. Il renvoie également à un système de référence ou guide pour l'application du droit soit qu'on y voit une qualité du droit ou qu'on admette l'existence du droit afin qu'il ne produise pas des résultats absurdes ou déraisonnables soit qu'on évoque l'existence de règles coutumières ou conventionnelles qui se réfèrent à des principes équitables de règles coutumières ou conventionnelles¹⁰².

Protection : sens générale : action de prendre soin des intérêts d'une personne ou d'une institution. Cette protection adopte des formes et revêt des aspects distincts selon la personne ou l'objet protégé ainsi que selon les modes de protection¹⁰³. Pour la protection des droits de l'homme, il s'agit de l'ensemble des mesures destinées à assurer le respect réel et effectif des droits de l'homme, par des garanties politiques ou juridiques notamment en assurant les voies de recours efficaces en cas de violation sur le plan interne comme sur le plan international¹⁰⁴.

Problématique de recherche :

Dans ce travail de recherche, il sera question de savoir dans quelle mesure le droit international relatif aux droits de l'homme assure une protection effective et équitable aux êtres humains ?

Méthodologie de recherche :

Cette recherche de nature documentaire à travers une approche juridique vise à analyser les différentes dimensions de la question

¹⁰¹ SALMON Jean (dir.), *Dictionnaire de droit international public*, éd. Bruylant/AUF, Bruxelles, 2001, p. 441

¹⁰² SALMON (Jean) (dir.), *Dictionnaire de droit international public*, Ob .cit. pp, 441-442

¹⁰³ Ibid, p. 899

¹⁰⁴ Ibidem, pp. 901- 902

de la protection des êtres humains au regard du Droit International relatif aux Droits de l'Homme tout en se servant de l'analyse comparative comme outil pour évaluer les lacunes en la matière.

Pertinence du sujet :

La pertinence de cette recherche réside dans l'importance croissant des appels au respect des droits de l'homme dans le monde entier de manière équitable, et la multiplication également des appels qui insiste sur la réforme des organismes contrôlant et surveillant leurs mise en œuvre.

Structure de l'article :

Le présent article est structuré en deux parties : dans la première partie il sera question d'analyser la question de la protection des individus par le droit international relatif aux droits de l'homme, pour relever dans la deuxième partie les failles de cette protection afin de les surmonter.

I- Une protection équitable des individus par le droit international relatif aux droits de l'homme

Le Droit International relatif aux Droits de l'Homme entant qu'une branche du Droit International Public ayant pour mission la protection de la personne humaine s'applique, sauf exception, en tout temps et toute circonstance et à tous les êtres humains (A) et il est mise en œuvre par des organes nationaux, régionaux (politiques et juridictionnelles) et internationaux (politiques, quasi-juridictionnelles et juridictionnelles) (B).

Des règles applicables en tout temps et toutes circonstances

A la différence du Droit International Humanitaire conventionnel qui ne s'applique qu'en période de conflit armé et comprend de nombreux seuils d'applicabilité et protège l'individu non pas en tant que tel mais en tant que partie d'une catégorie bien déterminée de personne combattant pour ou appartenant à la Partie adverse (les quatre Conventions de Genève de 1949 et leurs Protocoles

additionnels utilisent l'expression personne protégée de la violence de l'ennemi plutôt que celle de personne protégée), les dispositions du droit international relatif aux droits de l'homme sont applicables en temps de paix comme en temps de guerre.

En d'autre terme, les règles du DIDH sont toujours applicables bien que certaines d'entre elles peuvent être légitimement circonscrites lorsque la situation l'exige et elles concernent tous les individus du seul fait de leurs qualités d'être humain et ceux même lorsque certains instruments définissent et protègent des droits spécifiques au bénéfice de catégorie déterminante de personne (On peut noter à titre d'exemple : les enfants, les Femmes, les minorités, les migrants...Ce qui permet de distinguer les droits individuels des droits collectifs, de même, des régimes de faveur ont été créés : pour les apatrides, les réfugiés, les fonctionnaires internationaux). D'autant plus que le principe de la réciprocité, acte condition de la mise en application des Conventions en vertu du droit de traité (notamment la convention de Vienne de 1969), ne leurs y sont pas applicables.

En effet, le DIDH garantit à l'individu des droits dont il peut faire valoir en cas de violation et lui impose des obligations dont la violation engage sa responsabilité. Ainsi, l'analyse de 3 instruments (l'un international et deux de portée régionale) a fait ressortir que la Convention Américaine des Droits de l'Homme consacre le plus grande nombre des droits intangibles soit douze droits, suivi du Pacte International des Droits Civils et Politiques avec sept droits indérogeables et en dernier lieu la Convention Européenne des Droits de l'Homme (quatre droits indérogeables).

En fait, 4 droits font l'unanimité quant à leurs caractères intangibles à savoir : le droit à la vie, l'interdiction de la torture, l'interdiction de l'esclavage et certaines garanties judiciaires. A ce titre, la Cour internationale de justice dans l'affaire du Personnel diplomatique et consulaire des Etats-Unis à Téhéran a identifié dans le droit

international coutumier quatre droits insusceptibles de dérogation : le droit de ne pas être tenu en esclavage, le droit à la non-discrimination raciale, le droit de ne pas être privé « abusivement » de sa liberté et le droit de ne pas être soumis à un traitement inhumain en cas de privation de liberté¹⁰⁵.

Dès lors, une certaine équité est accordée aux individus abstraction faite de leurs appartenances, leurs religions, leurs races, leurs couleurs..... La question qui se pose alors est celle de savoir si le processus de la mise en œuvre de l'arsenal juridique protecteur de l'être humain permet de garantir une protection équitable des individus ?

Les garanties d'une mise en œuvre équitable des droits des individus

Afin d'encourager les Etats à appliquer les dispositions des traités, des Conventions..., et des Pactes relatifs aux droits de l'homme auxquels ils font Parties, le système des Nations Unies prévoit non seulement l'examen de rapports périodiques soumis par les Etats membres des Nations Unies aux organes de contrôles mais prévoit également la possibilité pour les individus de déposer des communications ou pétitions individuelles en cas de violation de leurs droits par l'Etat.

Ces Comités sont amenés à examiner lesdites plaintes du moment où les Etats ont ratifié les traités ou les Protocoles facultatifs les instituant ou encore s'ils ont reconnu par déclaration la compétence de ces comités à connaître les recours individuels nous citons à titre d'exemple le Comité des droits de l'homme instaure (Protocole facultatif au Pacte II), le Comité contre la discrimination raciale (l'article 22 de la Convention de l'ONU portant le même

¹⁰⁵ CIJ, *Aff. du Personnel diplomatique et consulaire des Etats-Unis à Téhéran*, Arrêt du 24 mai 1980, recueil 1980, p. 43, para. 91.

non) et le Comité contre la Torture (l'article 12 de la Convention de l'ONU contre la torture. De plus, d'autres mécanismes, procédures et moyens ont été instaurés afin de promouvoir le respect des droits de l'homme nous citons notamment, le Conseil des droits de l'homme, les groupes de travail, les fondations et fonds d'affectation spéciale, les mesures spécifiques et d'autres....

Des lors, lesdites garanties sont mise à la disposition de tous les Etats de façon à ce que ces derniers puissent y utiliser théoriquement de manière égalitaire ce qui pourrait assurer une protection équité de tout être humain y usant. Néanmoins, la réalité que nous vivons souvent l'infirmes et c'est cette question de l'applicabilité des dispositions en vigueur en la matière qui fera l'objet de l'analyse qui suit.

II- La protection des individus par le DIDH, quelle équité ?

Certes, la consécration des droits et libertés dans des traités et conventions internationaux n'est pas toujours le corollaire d'une protection effective et équité, puisque le fort décalage entre le niveau formel de l'engagement international et le respect réel des droits fondamentaux est souvent constaté. Il sera question ici de relever certaines lacunes portant non seulement sur le contenu de cette protection (A) mais également celles touchant son application de point de vue conception et mise en œuvre (B).

Un cadre juridique révélateur d'une équité limitée

Nul ne peut contester que les Pactes et Conventions internationaux relatifs aux droits de l'homme ont garanti des droits à tous les individus (abstraction faite des conventions destinées à des catégories spécifiques de personnes), certains d'entre eux ne peuvent être suspendus même lorsque la vie de la nation est menacée, néanmoins leurs applications par les Etats est loin d'être parfaite : l'absence des définitions qui fassent l'unanimité quant aux droits et

libertés garanties, l'imprécision de leurs contenus et la difficulté de délimiter leurs contours (nous prenons à titre d'exemple la notion de la torture par rapport à au traitement inhumain peut porter atteinte à son application) laissent une grande marge d'interprétation à l'Etat qui est censé les protéger. Une marge dont la larguer dépend non seulement du texte pris comme référence mais aussi du cadre de référence mobilisé pour l'interpréter ce qui pourrait crée un fossé entre la protection accordée aux individus vivant dans les pays Partis aux dites Conventions et Pactes (leurs contenus peut faire l'objet d'interprétation asymétrique¹⁰⁶).

En outre, si le recours aux dérogations et limitations est encadré par des textes internationaux contraignants néanmoins la présence d'une multitude d'intervenants ayant des cadres de référence dissemblables dans des contextes et des circonstances non univoques n'est pas sans influence sur la mise en œuvre desdits textes. Sans oublier que les enjeux en cause restent parmi les déterminants les plus influents dans cet exercice ce qui pourrait vider ces droits de leurs contenus étant donné que les instruments les prévoyant se sont contentés de dénombrer les conditions autorisant les Etats à y recourir d'une façon générale.

En effet, si la conception de cette protection est loin d'assurer, théoriquement, aux individus une protection suffisante et équité, sa mise en œuvre ne peut qu'accentuer les lacunes relevés ou encore en révéler d'autres.

Une pratique révélatrice du relativisme de la protection des individus

¹⁰⁶ BAKRI Karima, La limitation des droits et libertés individuelles : une tradition ou une trahison de la protection internationale de l'individu, *Revue Droit & Société*, N°9, Avril-Juin 2023, p. 167

Afin de trouver son application, les instruments internationaux relatifs aux droits de l'homme doivent être ratifiés par les Etats. En vertu du principe de la souveraineté, ces derniers sont normalement libres de ratifier voir d'adhérer aux Conventions, traités ou Pactes portant sur différents domaines et celui des droits de l'homme ne fait pas l'exception.

L'analyse de l'état de ratifications des principaux traités internationaux relatifs aux droits de l'homme montre que le nombre des Etats Parties n'est pas univoque et que le critère temporel n'a pas toujours une influence déterminant sur l'ratification ou adhésion à ces traités (situation arrêté en juin 2022) :

92 % des Etats ont ratifié la Convention Internationale pour l'élimination de toutes formes de Discrimination Raciale de 1965, 87% ont ratifié le Pacte II de 1966;

86 % ont ratifié le Pacte I ouvert aussi à la signature en 1966 ;

77 % sont Parties à la Convention pour la Prévention et la Répression du crime de Génocide de 9 decembre1948 ;

et seulement 31% ont ratifié la Convention Internationale pour la protection de toutes les Personnes contre les Disparitions Forcées.

A l'inverse du critère géographique (Si nous prenons à titre d'exemple le Pacte II nous constatons qu'il est ratifié par 50 pays en Afrique, 42 Etats en Europe, 32 pays en Amérique, 38 Etats en Asie et 7 pays en Océanie), cette situation asymétrique et déséquilibrée entre les 5 continents témoignant le relativisme de la protection accordée aux individus par le Droit International relatif aux Droits de l'Homme qui ne lie juridiquement que les Etats Parties auxdits traités. Des lors, la consécration des droits et des libertés varie d'un continent à un autre, d'un groupe régional à un autre et bien évidemment d'un Etat à un autre. Ce qui est loin de garantir une certaine équité entre les individus d'autant plus que l'implantation desdits traités dans l'ordre interne varie en fonction des traditions

constitutionnelles des Etats (dualiste ou moniste) ce qui complique d'avantage les choses.

Une autre difficulté s'ajoute est celle de l'absence d'une Cour Internationale permanente des droits de l'homme chargée de contrôler le respect des droits et libertés individuelles par les metteurs en œuvres tel le cas des trois Cours régionaux des droits de l'homme (Américaine, Africaine et Européenne) ou de celle instaurée dans le cadre du CEDEAO. Ainsi, seuls, les Comités conventionnels ou certains organes de la Charte des Nations Unies ont pour mission le contrôle de la mise en œuvre des droits de l'homme et dont l'épuisement de toutes les voies de recours internes (sauf exception) n'est qu'une condition parmi d'autres qui doivent être observés avant leurs saisines.

Une fois saisies, l'examen des plaintes et rapports ne donne lieu qu'à des constatations des violations des droits d'autant plus que leurs décisions sont dépourvues de force exécutoire¹⁰⁷.

En pratique, nous constatons que seulement 58 % des Etats membres de l'Organisation des Nations Unies ont accepté la compétence du Comité des Droits de l'Homme soit 64 % des Etats ayant ratifié le Pacte International relatif aux Droits Civils et Politiques. Dès lors, dans 36 % des Etats membre du Pacte II, l'individu, en cas de violation des droits que ledit Pacte lui garantit, après l'épuisement des voies de recours internes, ne peut les faire valoir devant le Comité des Droits de l'Homme.

En fait, une disparité en termes de reconnaissance de la compétence des comités est constatée entre les 5 continents (l'Europe dépasse de loin les autres continents (39 Etats ont reconnu sa compétence) et l'Océanie occupe le dernier rang (2 Etats)).

¹⁰⁷ KERBARAT (Yann), Organisation des Nations Unies : Comité des droits de l'homme et autres Comités mis en place par les conventions de protection des droits de l'homme des Nations Unies, Jurisclasseur Fasc. 2007, p. 10

A ceci s'ajoute la question de la faiblesse des sanctions en cas de violation des droits de l'homme : la plus part des conventions sont dépourvues de tout système de sanction internationale (seule la Convention contre la torture et autres peines ou traitements cruels, inhumains ou dégradants dispose d'un mécanisme intégré de définition des infractions graves et de sanction pénale).

Quant aux organismes chargés de les mettre en œuvres qui sont globalement de nature politique, leurs compositions comme leurs décisions sont souvent le résultat des marchandages et des rapports de forces entre les Etats puissants dont chacun cherche à maximiser ses profits et sauvegarder ses intérêts.

Pour l'Assemblée Générale des Nations Unies bien que tous les Etats membres sont représentés à son sein, ces décisions sont des résolutions non contraignantes : en l'absence de l'appui du Conseil de Sécurité, les Etats ne sont pas dans l'obligation de s'y conformer. Ce dernier : l'organe exécutif de l'Organisation des Nations Unies qui a la responsabilité principale du maintien de la paix et de la sécurité internationale (art. 24 de la Charte des Nations Unies) est composé de 15 membres dont 5 y siègent de façon permanente et disposent du droit de veto dont l'usage peut paralyser toute décision qui contrecarrer les intérêts de leur Etat.

Ainsi, la protection des êtres humains des violations massives de leurs droits s'impose et exige une intervention de sa part du moment où les gains l'emporte sur les pertes autrement dits du moment où l'intervention servira l'intérêt des 5 puissants ou la plus part entre eux une intervention aura lieu dans le cas contraire aucune action ne sera entreprise.

A ce titre, il faut noter que ce Conseil joue un rôle déterminant du moment où l'Etat est incapable ou refuse de protéger ses citoyens, étant donné il appartient à la communauté internationale de le faire en vertu de son obligation morale inscrite à la Déclaration Universelle des Droits de l'Homme au nom de « la

responsabilité de protéger ». Une mesure que la pratique a montré son défiance notamment en Lybie lorsque la mission a été détournée de la protection de la population Libyenne au déracinement du régime Kadhafi, en Syrie (lorsque le conseil de sécurité a été immobilisé par le veto de la Chine et de la Russie et l'Ukraine le réaffirme encore.

En dehors du système, du Nations Unies, la Cour Pénale Internationale est, en principe, compétente à l'égard des États qui ont volontairement ratifié ou adhéré au Statut de Rome (Jusqu'à 19 février 2022, 123 États y sont Partis, Les USA, la Chine, la Russie ne l'ont pas ratifié) cette Cour n'est compétente qu'à l'égard de 4 crimes et ne peut intervenir que de façon complémentaire sauf exception (lorsqu'il est saisi par le Conseil de Sécurité qui peut la paralyser en l'empêchant de statuer sur certaines affaires).

Ainsi, sur le plan pratique la question de l'appartenance joue un rôle primordial dans le processus de la protection des êtres humains qui, à nos jours reste inégalitaire.

Conclusion

Arrivant à terme de notre étude, il nous appartient de dire que pour assurer une protection équitable des individus, il n'appartient pas seulement aux États de ratifier ou d'adhérer à la plus part des traités internationaux relatifs aux droits de l'homme et de reconnaître la compétence des Comités conventionnels chargés de l'examen des plaintes individuelles en cas de violation de leurs droits mais il leur revient de coopérer ensemble en la matière et de trouver un terrain commun d'entente pour protéger équitablement leurs citoyens y compris la création d'une Cour internationale des droits de l'homme échappant au contrôle du Conseil de Sécurité et aux prismes du politique bien que tel soit souhaité, dans les présentes conditions, s'avère difficile à réaliser, la tentative aura plus de bien que de mal.

En outre, le renforcement de l'arsenal juridique national fermera la porte à toute intervention au nom de la protection des droits de l'homme avec notamment non seulement la consécration de l'Etat de droit, et corrélativement de l'indépendance de la justice qui reste le thermomètre pour mesurer le degré d'enracinement de la démocratie dans un pays mais également de promouvoir toute action visant la sauvegarde des droits et libertés au niveau local.

Sans oublier, bien évidemment, de mener des actions en la matière au niveau régional et international (la réactivation du rôle de la commission du Droit international à titre d'exemple).

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Les soft skills au service de l'employabilité

Le savoir –être : un atout indispensable sur le marché du travail

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Résumé

Force est de reconnaître que l'enseignement universitaire a une grande importance dans la vie des étudiants marocains, soulignant que les diplômes obtenus jouent un rôle crucial sur le marché de l'emploi. Cependant, de nombreux diplômés ont du mal à trouver du travail en raison de l'écart entre leurs compétences et les critères requis par les recruteurs, ce qui contribue au taux élevé de chômage des diplômés au Maroc. D'où la nécessité d'une collaboration étroite entre l'université et le monde socio-économique pour adapter l'enseignement supérieur aux besoins du marché de l'emploi et pour réussir l'employabilité des futurs lauréats.

En sus de l'acquisition de connaissances spécialisées dans leurs domaines d'études respectifs, les universités ont également pour mission de prioriser le développement de compétences transversales essentielles, telles que la résolution de problèmes, la communication, le travail en équipe, l'adaptabilité, et bien d'autres. Cela permet aux étudiants de cultiver les compétences requises pour prospérer dans leur future carrière.

Mots clés : Université, entreprise, recrutements, soft skills, employabilité, Maroc.

Introduction

L'université, en tant qu'établissement d'enseignement supérieur regroupant plusieurs facultés et écoles supérieures, revêt une importance cruciale dans la vie des étudiants marocains. Cela s'explique par la valeur significative des diplômes obtenus, tant sur le marché de l'emploi national que dans le parcours professionnel des lauréats. Cependant, les diplômés universitaires peinent à décrocher un emploi en raison de leur inadéquation aux critères exigés par les recruteurs. Cela explique le taux élevé de chômage parmi les diplômés au Maroc.

Juste après avoir obtenu leur diplôme universitaire, les étudiants fraîchement diplômés entament la quête d'un emploi où ils pourront mettre en pratique les compétences techniques déjà acquises au cours de leurs études. Cette démarche peut s'avérer difficile en raison de divers obstacles. D'où l'importance d'établir une étroite collaboration entre deux éléments clés : l'université et le monde socio-économique.

Ces deux piliers jouent un rôle déterminant dans le développement et la progression de la société dans son ensemble. Une Coopération continue entre ces deux fondements permettrait d'adapter l'enseignement supérieur aux besoins du marché de l'emploi, tant national qu'international. C'est pourquoi nous considérons comme impératif d'intégrer les soft skills dans le cursus académique afin de préparer les candidats à s'intégrer aisément dans le monde socio-économique comme des entrepreneurs ou des employés.

En plus des connaissances spécifiques à leur domaine d'études, les universités se doivent de mettre l'accent sur le développement des compétences transversales telles que la résolution de problèmes, la communication, le travail d'équipe, l'adaptation, et bien d'autres. Ainsi, les étudiants pourront acquérir les compétences nécessaires pour réussir dans leur future carrière.

Dans quelle mesure l'acquisition de compétences comportementales, ou soft skills, peut-elle améliorer les perspectives d'emploi des futurs lauréats sur le marché du travail ? La didactisation des compétences transversales exigées dans le contexte socio-économique pourrait-elle faciliter l'insertion des candidats dans le monde professionnel ?

Pour apporter des réponses à ces interrogations, nous entreprendrons une analyse des données collectées à partir des enquêtes dans le but de tirer des conclusions solides concernant l'impact des compétences comportementales sur l'employabilité.

Soft skills et employabilité : Cadre conceptuel

Que signifient les soft skills ?

Le terme anglais « soft » se traduit en français par « douce » ou « molle », tandis que « skill » signifie habileté ou compétence. Selon les auteurs et les chercheurs, « soft skills » fait référence à des compétences multidisciplinaires et comportementales. Il désigne aussi tout type de compétences comportementales ou transversales. En général, ce terme englobe un large éventail de compétences non techniques qui sont essentielles dans le monde professionnel et personnel. Plusieurs experts en éducation (comme Daniel Goleman et Thomas R. Hoerr), en psychologie (par exemple, Howard Gardner, John D. Mayer et Peter Salovey), en gestion des ressources humaines (comme John Kotter) ont contribué à la compréhension et la promotion de ces compétences dans différents contextes. En raison de leur importance, ces compétences sont devenues nécessaires dans le contexte professionnel et hautement prisées par les responsables du recrutement et des ressources humaines au sein des entreprises.

Vu leur importance, elles sont devenues nécessaires dans la vie professionnelle et elles sont plus recherchées par les recruteurs et

les directeurs des ressources humaines des entreprises. Pour eux, certes, les diplômes et le parcours d'un candidat sont importants, mais ils ne sont pas les seuls points garantissant son employabilité. En d'autres termes, les entreprises ne se limitent pas uniquement aux candidats ayant des compétences techniques (hard Skills), mais elles cherchent également des compétences comportementales (Soft skills). Pour les recruteurs, un candidat doté soft skills peut s'adapter facilement et efficacement aux changements constants du marché de l'emploi.

En d'autres termes, une compétence transversale comprend les savoirs cognitifs et métacognitifs (savoirs, savoir-faire, savoir-être) qui permettent à une personne de s'intégrer efficacement dans diverses situations, de s'adapter, de résoudre des problèmes et de mener à bien des projets. Une compétence transversale peut se focaliser principalement sur les aspects sociaux et affectifs (comme le respecter des autres et la coopération) ou sur les aspects cognitifs (comme la mémorisation et la structuration de l'information). Les compétences transversales à dominante socio-affective jouent un rôle essentiel dans la construction de l'identité et de la personnalité. Les soft skills à orientation cognitive englobent les compétences liées à la gestion de l'apprentissage ainsi que celles qui se rapportent au traitement de l'information.

Que signifie l'employabilité ?

L'employabilité est « un ensemble de réalisations, de compétences, de compréhensions et d'attributs personnels qui rendent les diplômés plus susceptibles d'obtenir un emploi et de réussir dans les professions qu'ils ont choisies, ce qui profite à eux-mêmes, à la main-d'œuvre, à la communauté et à l'économie¹⁰⁸ ».

¹⁰⁸ UK Higher Education Academy

Selon cette définition, nous pouvons dire que l'employabilité fait référence à un ensemble de caractéristiques et de qualités que possèdent les diplômés d'une formation ou d'un établissement d'enseignement supérieur. Ces caractéristiques incluent des accomplissements, des compétences, des compréhensions et des attributs personnels. En outre, l'employabilité vise à préparer les diplômés à être compétitifs sur le marché du travail en leur fournissant les compétences nécessaires. Cela profite non seulement aux individus en termes de carrière et de bien-être personnel, mais aussi à la société dans son ensemble en favorisant la croissance économique et le développement communautaire.

Pourquoi les lauréats ?

Nous avons opté pour cette catégorie en raison de son importance significative. Les diplômés universitaires représentent une part considérable de la population diplômée au Maroc. A leur sortie de l'université, ils possèdent une solide maîtrise des compétences académiques et spécialisées acquises au cours de leurs études.

Leur insertion dans le marché de l'emploi présente de nombreux avantages. Tout d'abord, ces jeunes diplômés auront la possibilité de trouver l'emploi de leurs rêves, ce qui leur permettra de subvenir à leurs besoins et de devenir financièrement indépendants. De plus, cela rehaussera la réputation de l'université et confèrera une plus grande valeur au diplôme sur le marché de l'emploi.

Une formation de qualité à tous les niveaux renforcera également la pertinence du diplôme aux yeux des employeurs. Enfin, l'augmentation de l'employabilité des lauréats mettra un terme au chômage qui touche cette catégorie de la population et stimulera le développement économique du pays à court et long terme.

Durant le parcours scolaire, universitaire ou professionnel, la plupart des filières se focalisent sur l'enseignement du savoir-faire, c'est-à-dire des connaissances et des compétences techniques ou

académiques. En revanche, le système éducatif marocain a proposé un nouveau plan d'action visant le développement des compétences transversales par l'octroi de formation de qualité. L'objectif se résume dans le fait de ne pas s'appuyer juste sur le savoir-faire pour réussir une carrière professionnelle mais également le développement du savoir être qui doit répondre aux attentes de l'environnement professionnel.

Il devient impératif d'offrir une assistance à ces jeunes diplômés et les accompagner dans le développement de leurs compétences humaines, afin de les préparer à s'adapter à l'évolution de leur environnement et améliorer leurs chances d'employabilité. Autrement dit, la réussite professionnelle est tributaire de l'acquisition d'un ensemble de compétences. En intégrant les soft skills aux hard skills dans le système éducatif marocain, nous pouvons développer de multiples compétences chez les étudiants, leur assurant ainsi une employabilité réussie. Laquelle employabilité repose sur :

Les attitudes ou le capital humain,

Les traits de personnalité ou les talents,

Les compétences qui peuvent être techniques, sociales ou émotionnelles.

II. Etude empirique : discussion des résultats et propositions

Afin d'explorer notre problématique, nous avons opté pour une étude quantitative en utilisant deux questionnaires distincts. Le premier a été destiné aux enseignants de l'université Hassan II, tandis que le second a été conçu pour les recruteurs.

Notre objectif principal est d'élucider le rôle des soft skills dans l'enseignement universitaire et de déterminer leur importance. En réalité, notre objectif de recherche est de contribuer à la création d'un capital humain qui répondra aux exigences du marché de l'emploi, favorisant ainsi une employabilité réussie et fluide.

Nous avons opté pour une approche de recherche-action dans le but d'explorer en profondeur les différentes facettes de la problématique. Cette démarche nous permettra de proposer un plan d'action pertinent et d'analyser les résultats obtenus tout en apportant des solutions adéquates.

Pour mener à bien notre enquête, nous avons utilisé un questionnaire en ligne via Google Forms pour recueillir des réponses précises et mesurables à une série de questions. Cette approche s'aligne avec la nature exploratoire de notre étude, ce qui nous permet de soumettre notre questionnaire de manière adaptée à notre objectif de recherche.

Discussion des résultats

Questionnaire adressé aux enseignants :

Notre première priorité est d'engager les enseignants de l'université Hassan II- Casablanca. Leur participation est cruciale pour nous permettre d'identifier certains facteurs potentiels qui pourraient être à l'origine de l'inemployabilité des diplômés issus de diverses filières et institutions. Nous considérons notre échantillon comme pouvant être représentatif parce qu'il englobe toutes les filières de l'université, provenant de différents établissements et possédant une expérience significative.

Nous avons également administré un questionnaire aux recruteurs, entrepreneurs et responsables des ressources humaines. La contribution de ces deux groupes (enseignants et recruteurs) permettra une approche exhaustive et efficace de notre problématique.

Les Soft skills à l'université

En ce qui concerne notre question sur l'importance de l'enseignement des soft skills à l'université, nous avons obtenu les résultats suivants : un impressionnant taux de 97,5 % des

répondants estime que l'enseignement de ces compétences revêt un rôle crucial. Selon les enseignants, les soft skills sont considérées comme des compétences essentielles pour réussir dans la vie académique. Elles sont souvent étroitement liées à la réussite scolaire. Par exemple, la capacité des étudiants à gérer leur temps efficacement peut les aider à mieux s'organiser pour leurs études. Une communication efficace peut améliorer la participation en classe, tandis que la capacité à résoudre des problèmes peut aider à surmonter les défis académiques.

Cependant, une petite fraction de 2,5% s'oppose à l'enseignement des soft skills à l'université marocaine. Selon ce groupe, les étudiants devraient se concentrer exclusivement sur l'acquisition de compétences académiques, les autres compétences pourraient être développées en dehors de l'université.

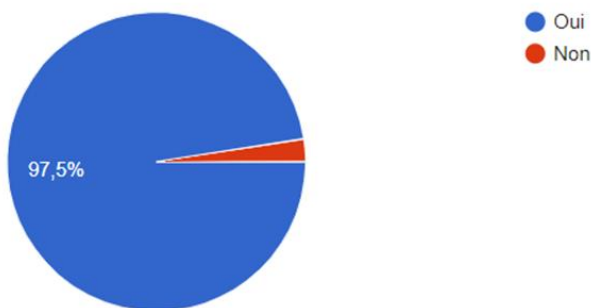


Figure 1 : Soft skills à l'université

L'apport des Soft Skills

Selon 97,5% des enseignants interrogés, il est indéniable que les soft skills jouent un rôle fondamental dans le développement personnel et professionnel des étudiants. Néanmoins, une faible proportion de 1,2 % ne perçoit pas de contribution significative de

ces compétences, tandis que la même proportion de 1,2 % maintient une position neutre à ce sujet.

La majorité des enseignants estime que les soft skills sont d'une importance capitale pour la vie académique et professionnelle des étudiants, car elles englobent des compétences telles que la collaboration en équipe, la résolution de problèmes sociaux, et la sensibilité citoyenne. Ces éléments sont fondamentaux pour que les étudiants puissent apporter une contribution constructive à la société. En outre, en enseignant à la fois les compétences techniques (hard skills) et les compétences non techniques (soft skills), les universités préparent les étudiants à devenir des professionnels complets et bien équilibrés.

En ce qui concerne les catégories minoritaires, leur réponse peut être expliquée soit par une réticence à reconnaître l'importance des soft skills, soit par un manque de formation dans ce domaine.

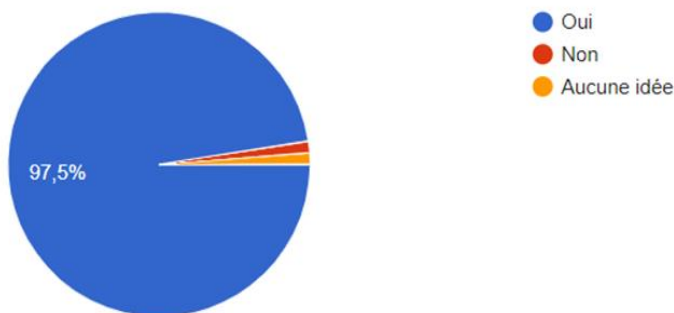


Figure 2 : Apport des soft skills

L'importance de l'enseignement des soft skills :

La figure 3 montre que 82,7 % des enseignants reconnaissent l'importance de lier les hard skills et les Soft skills dans l'enseignement supérieur. Cela signifie qu'ils considèrent que l'enseignement supérieur doit accorder une importance équivalente aux compétences techniques et aux compétences transversales. En revanche, un groupe de 12,3% estime que l'accent devrait être mis principalement sur les compétences transversales. Enfin, 5% des répondants pensent que l'enseignement supérieur devrait prioriser les compétences académiques ou techniques.

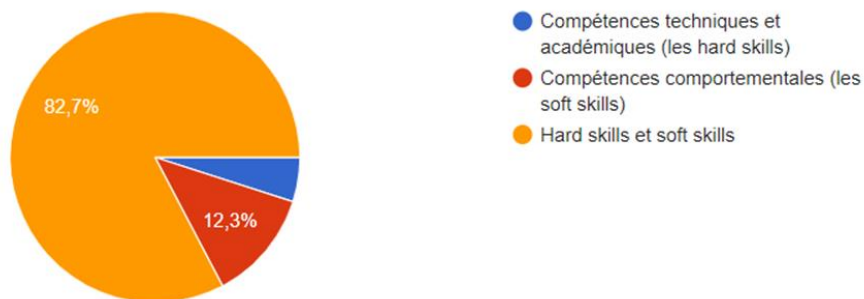


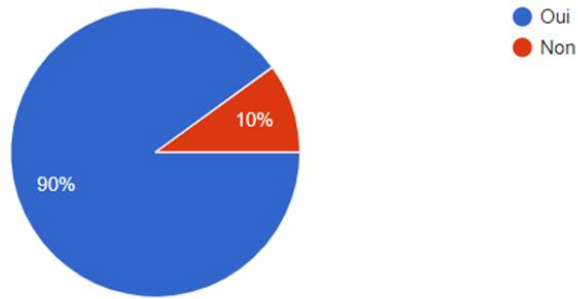
Figure 3 : Importance de l'enseignement des soft skills.

1.2 Questionnaire adressé aux recruteurs :

A l'aide de Google Forms toujours, nous avons également distribué notre deuxième questionnaire auprès des recruteurs, des entrepreneurs et des responsables des ressources humaines. Nous avons ainsi pu faire l'inventaire des besoins et des attentes des acteurs dans le domaine professionnel.

L'importance des stages

En ce qui concerne l'importance du stage, la majorité, soit 90% des recruteurs, considère que les stages revêtent une grande importance dans la vie des étudiants universitaires. Le taux élevé des réponses positives quant à l'importance des stages nous a incités à poser des questions supplémentaires afin de mieux comprendre cette perception.



La figure 4 représente les réponses des recruteurs sur l'importance des stages.

Le rôle des stages

Selon 58,3 % des recruteurs, le stage est important car il va permettre à l'étudiant de s'ouvrir sur le monde de l'emploi et de se mettre dans des situations professionnelles. En plus, Un stage donne au lauréat l'occasion d'appliquer les connaissances acquises pendant ses études dans un environnement professionnel réel. Cela permet de mieux comprendre comment les concepts théoriques sont mis en œuvre dans la pratique.

Un taux de 33,3 % voit que le stage est une opportunité pour avoir un contact avec le monde de l'emploi. Autrement dit, pendant un stage, le lauréat a l'occasion de rencontrer et d'interagir avec des professionnels du secteur. Cela peut aboutir à des contacts utiles pour l'avenir, notamment pour trouver un emploi à temps plein après la fin du stage.

Certains recruteurs estiment que le stage représente la meilleure opportunité pour assimiler la culture d'une entreprise. En d'autres termes, travailler au sein d'une entreprise permet au candidat de se familiariser avec la culture et les valeurs de cette organisation. Cette expérience lui donnera l'occasion d'évaluer si l'entreprise correspond bien à ses objectifs professionnels à long terme.

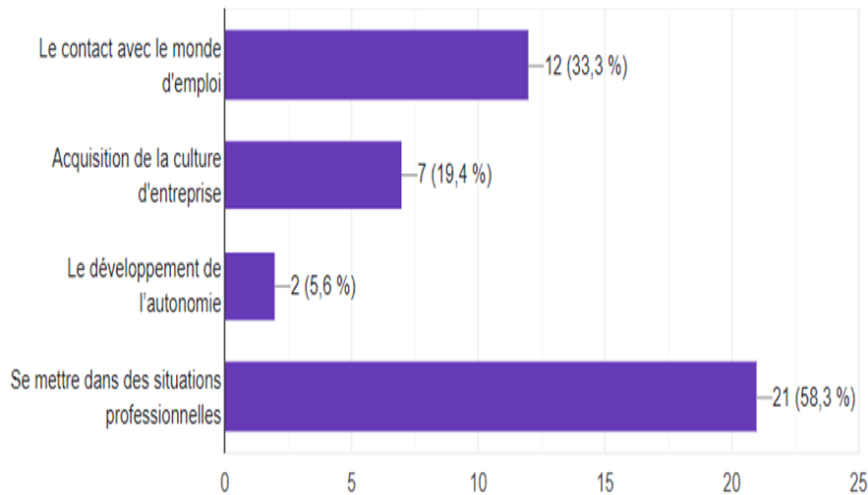


Figure 5 : le rôle du stage dans la formation académique.

L'apport des jobs d'été :

Les recruteurs accordent une grande valeur aux jobs d'été pour plusieurs raisons importantes :

Acquisition d'expérience professionnelle : environ 38,6% des recruteurs estiment que les jobs d'été offrent aux étudiants l'opportunité d'acquérir de l'expérience professionnelle. Cela leur permet de mettre en pratique les compétences qu'ils ont acquises à l'université et de se familiariser avec les bases du marché de l'emploi. Cette expérience précoce peut être précieuse pour leur développement professionnel futur.

Exploration du monde professionnel : pour 31,4% des recruteurs enquêtés les jobs d'été permettent aux jeunes de découvrir différents domaines professionnels. Travailler pendant l'été ou les vacances leur offre l'occasion d'explorer des carrières qui les intéressent ou de confirmer leurs choix de carrière existants. Cela peut aussi les aider à identifier ce qu'ils n'apprécient pas dans un emploi, ce qui est tout aussi important pour prendre des décisions éclairées concernant leur avenir professionnel.

Développement des compétences « soft skills » (31,8) : les recruteurs reconnaissent que les jobs d'été aident les jeunes à développer des compétences comportementales précieuses. Cela inclut des compétences telles que la communication, la résolution de problèmes, la gestion du temps, le travail d'équipe, et bien d'autres encore. Ces compétences sont utiles dans tous les aspects de la vie, qu'il s'agisse du monde professionnel ou personnel, et sont souvent recherchées par les employeurs.

Renforcement de la confiance en soi (15,9 %) : un job d'été offre la possibilité de gagner son propre argent. Cela peut être particulièrement bénéfique pour les étudiants cherchant à subvenir à leurs besoins personnels, financer leurs études, ou épargner pour le futur.

Acquisition de l'indépendance financière (25 %) : la recherche, l'obtention et l'exécution réussie d'un job d'été démontrent aux futurs employeurs que le candidat est sérieux, motivé et capable de prendre des responsabilités. Cela témoigne de leur capacité à gérer leurs finances de manière autonome, renforçant ainsi leur indépendance financière.

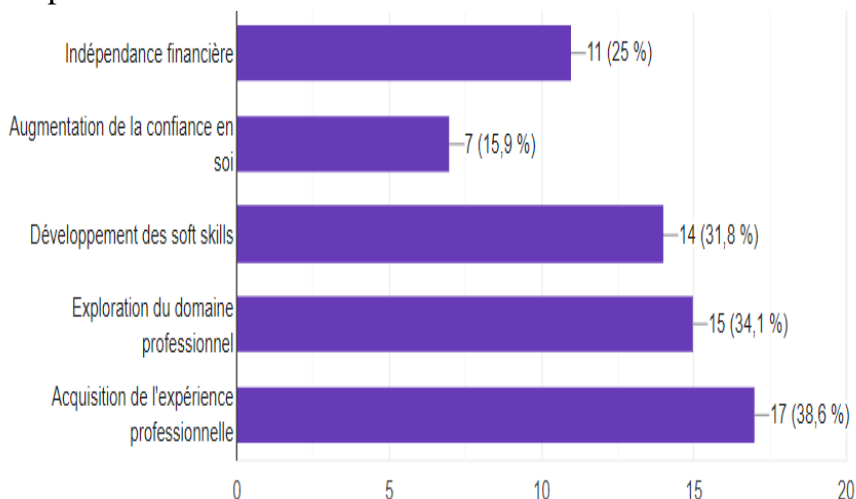


Figure 6 : le rôle de job d'été

De quelques propositions pour améliorer l'employabilité :

Les deux groupes étudiés ont démontré que les soft skills sont d'une grande importance. De plus, l'enseignement de ces compétences peut favoriser le développement personnel et professionnel des étudiants marocains. Par ailleurs, une bonne intégration des compétences transversales peut indubitablement améliorer l'employabilité des futurs diplômés. Pour une insertion professionnelle réussie des futurs lauréats nous proposerons les solutions suivantes :

La didactisation des soft skills : l'enseignement de ces compétences doit être généralisé dans tous les établissements de l'université Hassan II, ainsi que dans l'ensemble des universités marocaines. L'enseignement des compétences comportementales peut débiter bien avant la phase de l'enseignement supérieur, dès le lycée voire le collège. Ainsi, les étudiants arriveront à l'université avec un niveau avancé et une solide base de soft skills déjà acquises. Pour ce faire, les cours devraient être structurés sous forme d'activités pratiques, de sorties sur le terrain pour des études exploratoires, ou encore par la création de clubs au sein des établissements scolaires qui se consacrent à l'orientation et l'encadrement des élèves.

La planification des stages : les stages sont souvent sous-estimés dans certaines filières, notamment les filières littéraires, tandis que dans d'autres leur importance ne se manifeste qu'à la dernière année ou au dernier semestre. Dans cette perspective, nous proposons de mettre en place un plan de stage dès la première année d'études à l'université, où chaque étudiant devrait effectuer des stages (d'au moins un mois chaque année) dans son domaine de spécialisation. Ces stages seraient accompagnés d'un suivi de la part de tuteurs et d'un rapport détaillant les objectifs atteints ainsi que les obstacles rencontrés. Cette approche permettrait aux futurs diplômés de disposer d'un large éventail de choix pour leur

carrière, et de s'orienter vers un domaine où ils pourront être plus actifs et productifs. Puisque le stage représente une opportunité précieuse d'appliquer les connaissances théoriques dans un environnement professionnel, il est préférable de l'ingérer dès l'enseignement secondaire ou collégial, sous forme de formations de courte durée. Cette opportunité donnerait aux élèves du collège ou du lycée une vision claire de leur orientation académique, de la filière qu'ils souhaitent étudier, ainsi que du métier qu'ils envisagent d'exercer. Cela facilitera l'employabilité et l'insertion professionnelle des futurs lauréats.

Le job d'été doit avoir plus d'importance dans la vie des étudiants universitaires et les élèves des établissements scolaires. Certes, les vacances sont généralement prises pour se reposer et voyager mais elles peuvent être aussi l'occasion d'acquérir de précieuses expériences professionnelles. En plus, l'étudiant ou l'élève apprendra à bien investir et gérer son temps libre. Un job d'été peut être lié à leur future carrière ou leur ouvrir de nouvelles perspectives. En plus de procurer une indépendance financière et une responsabilité accrue, il offre l'opportunité d'explorer de nouveaux métiers et d'accumuler une expérience précieuse. Ces expériences influenceront certainement le choix de carrière et favoriseront l'employabilité dès l'obtention du diplôme.

L'organisation de forums et des journées portes ouvertes dans les établissements scolaires et les différentes facultés du pays : ce type d'événements exposera les élèves et les étudiants à des environnements académiques et leur fera découvrir les possibilités offertes par l'enseignement supérieur. Ces événements peuvent encourager davantage d'élèves à envisager la poursuite de ses études au-delà du niveau secondaire. Dès le lycée, les élèves commenceront à créer des liens entre les établissements d'enseignement et le métier dont ils rêvent. La tenue de ces événements renforcera les liens entre les écoles, les facultés et le

domaine socio-économique, contribuant ainsi à une meilleure intégration des apprenants dans le milieu professionnel.

Conclusion

Pour réaliser cette recherche, nous avons mené une étude quantitative en administrant un sondage en ligne à des enseignants-chercheurs issus de diverses facultés et écoles supérieures de l'université Hassan II, ainsi qu'à des recruteurs.

Les résultats obtenus confirment que généraliser l'enseignement des soft skills à l'enseignement supérieur serait rentable et bénéfique, de point de vue académique et professionnel.

Une intégration adéquate des soft skills, conformément aux attentes du marché de l'emploi national et international renforcerait l'employabilité des diplômés marocains. Cette didactisation devrait concilier l'acquisition de connaissances avec une ouverture sur le marché de l'emploi.

Par conséquent, cette étude met en évidence le rôle crucial de l'enseignement des soft skills dans l'amélioration de l'employabilité des diplômés, ainsi que l'importance d'une formation qui combine à la fois les compétences techniques et les compétences transversales. L'acquisition et le développement de ces soft skills devraient commencer dès les premières années de l'éducation formelle au lieu d'être limités uniquement à l'enseignement supérieur. Les activités parascolaires, l'intégration des clubs et des associations, les jobs d'été et les stages jouent un rôle significatif dans le développement personnel et professionnel des futurs lauréats.

En investissant dans l'enseignement et la promotion des soft skills, les étudiants peuvent se préparer de manière plus holistique au monde du travail. Les entreprises peuvent ainsi bénéficier de collaborateurs mieux préparés à relever les défis professionnels. Complétant les compétences techniques et académiques, les soft

skills renforcent la capacité à s'adapter aux besoins changeants du monde professionnel et contribuent à bâtir des carrières solides et durables.

Notre travail nous a également permis d'identifier certaines limitations susceptibles de compromettre sérieusement l'employabilité des diplômés marocains. Nous pouvons les résumer comme suit :

Le manque de communication entre l'université et le secteur socio-économique : une communication continue et des objectifs partagés entre ces deux parties permettront de cibler l'enseignement des soft skills et des hard skills, ce qui contribuera à réduire le décalage entre la formation et les besoins du marché de l'emploi.

Le manque d'investissement dans la recherche scientifique : si les entreprises réussissent à investir dans l'enseignement supérieur, les programmes académiques pourront être alignés sur les objectifs et les attentes des entreprises. Cela permettrait de concevoir des cours en fonction des besoins spécifiques des employeurs. En outre, cela encouragerait l'innovation et l'adoption de technologies internationales, tant du côté de l'université que de l'entreprise.

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The Importance of Motivation in Mastering English as the Foreign Language (EFL)

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Abstract

The study aims to determine the main factors that increase motivation in learning English Language at secondary school, White Nile State, Kosti Locality. The study followed the descriptive analytical method to examine the main factors which motivate students to learn English Language. A questionnaire was used to collect data randomly. Data was analyzed by Statistical Package for Social Sciences (SPSS). The study has come to a number of findings. The most outstanding ones are: most students at secondary schools in Kosti Locality are well-motivated in learning English Language if they are taught by qualified teachers. The majority of English Language teachers are untrained. Finally, the study has recommended that, training courses should be held regularly and useful modern methods and proper techniques should be used in teaching language.

Key words: *The Importance, Motivation, Mastering English, the Foreign Language (EFL)*

Introduction:

Motivation is a very important factor inside classrooms so as to confirm and reinforce the success of the students. When students are motivated, they participate within the classroom positively and focus on their learning with an open eye and alert mind. Therefore, the lack of motivation for learning English language is considered to be among various factors that responsible for the failure of mastering English language, the main purpose of this study is to investigate and reinforce the secondary school students' motivation for learning English as a foreign language.

Chapter One: Framework methodology and Previous studies

Statement of the problem

The study attempts to investigate the importance of motivation in learning English language. Also, the most important methods and techniques that reinforce students' motivation should be highlighted.

Questions of the Study

To what extent is motivation important in mastering English language? What is the relationship between motivation and mastering English language? To what extent do different methods and techniques have great impact on mastering English language?

The importance of the study

This study is of great importance, because, it opens the way widely to English language Teachers to pay more attention of the neglected factor(motivation) in learning English language Teachers. So, the study sheds light on the concept motivation. Also, those who design syllabus will get benefit from it.

Objectives of the study

The main objectives of the study represent of:

1. To investigate Students' motivation towards learning English language at secondary school in Sudan.
2. To find out the relationship between motivation and mastering English language via school environment.
3. The majority of Sudanese teachers use various methods and techniques to motivate their students in mastering English language.

Hypotheses of the study

1. Students' at secondary school are motivated towards mastering English language.
2. There is a great relationship between motivation and Mastering English language.
3. Using various methods and techniques play an important role in mastering English language.

Methodology of the study

To investigate the problem of motivation and to choose the suitable solutions for it, the analytical descriptive method was used. The tools by which the researchers collected the data are the students' questionnaire. The questionnaire was analyzed by adopting SPSS.

The Previous Studies

1. This study was prepared by Ahmed Babiker Ali (1999). It is entitled as, 'Problem of English Teaching in Higher Secondary School in Sudan. Teacher Education Program': It is M.A. degree in university of Khartoum. The main results that were obtained from the study are: the lack of teachers' training at English language is the main cause of low standard of English language. The objectives

of teaching English language in secondary school are not clear, and the teachers are aware of them. The methods of teaching English in secondary school are old and not communicative ones. The lack of teachers' training at English language is the main cause of low standard of English language. The main recommendations of this study are as: teachers at secondary school should be included in ongoing training programs.

2.This study was prepared by Ahmed Mohammed Haron1992. The title of the study is 'Problem Facing Sudanese Secondary School Students in learning English'. It is M.Ed. at university of Khartoum; the main aim of this study is to know the causes of difficulty with students in learning English language. The main results are as: there is a big problem in learning English language. The teachers are not well-trained and qualified enough to solve the problem of declining of English language learning. The most recommendation is that, training and qualifying of teachers should be compulsory and providing teachers with audiovisual aids.

Chapter Two: Literature Review

Motivation:

A number of schools attempt to define the term motivation. Some of these definitions are as Brow states (1997:168) “Motivation is quite simple, the anticipation of reward driven to acquire positive reinforcement and driven by the previous experiences of reward for behavior”. Another definition which is stated by Maehr et.al (1997:73): "Motivation is a theoretical used to explain the initiation, direction, intensity, persistence and quality of behavior especially goal- directed behavior.". Furthermore, Harmer (2001:51) defines motivation as "some kind of internal drive which pushes someone to do things in order to achieve something". Also, McCarthy (1998:65) defines motivation as "aids position of

learners that is characterized by their willingness to initiate learning activities their continued involvement in learning tasks, and their long-term commitment to learning ". Motives are hypothetical constructs used to explain why people are doing things and what they are doing them? So, motives are distinguished from related constructs such as, goals and strategies.

Thus, motive is usually constructed as relatively general needs or desires that energize students to initiate purposeful action sequences. Also, motivation is the process that initiates, guides and maintains goal-oriented behavior. Therefore, motivation involves biological, social and cognitive forces that activate behavior. Thus, motivation makes someone to act positively in a way that gets him closer to his objectives. Brophy (2004:4) states that:

“Learning is fun and exciting at least when the curriculum is well matched to students interests and abilities and the teacher emphasize hands-on activates. When you teach the right way, motivation takes care of itself.”

This citation emphasizes that, teaching students require a highly-motivated both a teacher and a student.

"School is inherently boring and frustrating. We require students to come. Then try to teach them stuff that they don't find meaningful. There is little support for academic achievement in the peer it culture and frequently at the home as well. A few students may be enthusiastic about learning, but most of them require the grading system and the carrots and sticks" Ibid

This italicized citation expresses the core ideas behind much of the advice traditionally offered to teachers about motivating students. In this view, teachers seek to maximize pleasure and minimize frustration. Also, they can shape student's behavior by manipulating reinforcement contingencies. Therefore, motivation places much more emphasis on individual's decisions. Suzanna Graham (1997:96), Gardner (1985:147) defines motivation as "the efforts,

want (desire) and affect associated with learning a second language" Thus, it should be taken after deep thinking and complete readiness. Some cognitive psychologists see underlying need or derive as the compelling force behind our decisions Ausubel (1968:69) identifies six needs undergirding the construct of motivation:

The need for exploration, for seeing "the other side of the mountain" for probing the unknown.

The need for manipulation, for operating on the environment and causing change.

The need for activity, for movement and exercise, both physical and mental.

The need for stimulation, the need to be stimulated by the environmental, by other people or by ideas, thoughts and feelings.

The need for knowledge, the need to process and internalize the result of exploration, manipulation, activity and stimulation, to resolve contradictions, to request for solutions to problems and for self-consistent system of knowledge.

The need for ego enhancement, for the self to be known and to be accepted and approved of by others.

As the result of that different schools have different views to the term motivation. These schools are Behavioristic School, cognitive school, and constructive school. Their views are as follow, briefly:

Behavioristic School: it focuses more on the anticipation of reward desire to receive positive reinforcement, external individual forces in control, whereas: the cognitive school is driven by basic human needs {exploration and manipulation} degree of effort ended and internal individual forces in control. But the constructive school gives more emphasis on, social context, community, social status, security of group, internal interactive forces in control.

Nature of Motivation

The nature of motivation primarily refers to the quality and ability of student's cognitive engagement in a learning activity. It does not focus on the intensity of the physical effort. They devote to it or the time they spend on it. Yule (1997:195) states that "it has been noted that those who experience some success are among the most motivated to learn"" So, students were born with the potential to develop a great range of motivational dispositions.

A few such dispositions appear to be inborn as part of the human condition and can be observed in everyone as Brophy (2004:17) states that:

“It is helpful to view motivation to learn as a schema- a network of connected insights, skills, values and dispositions that enable students to understand what it means to engage in academic activities with the intention of accomplishing their learning goals and with awareness of the strategies they use in attempting to do so.”

The total schema cannot be taught directly, although some of its conceptual and skills components can. These motivational dispositions which include key insights and cognitive strategies are learned as the result of socialization at home and instruction at school.

Types of motivation

There are many types of motivation which work together to form the process of successful learning. Each one has certain aspects that distinguished it from the others.

Extrinsic motivation: it is mainly concerned with factors outside the classroom and it is often involving rewards as money, social recognition and praise.

Intrinsic motivation:

It is concerned with what takes place inside the classroom. It is caused by outside factors for reasons like passing the examinations. Also, intrinsic motivation comes from the enjoyment of a person to do something. Therefore, motivation is the most important for people in general and for students in particular so as to make them to do better and learn more. Moreover, it increases students' self-confidence and self-dependence.

Integrative motivation:

For this type of motivation students' need to be attracted by the culture of the target language community. In addition to the strong form of integrative motivation, students wish to integrate themselves into that culture. A weaker form of such motivation would be the desire to know as much as possible about the culture of the target language community (TLC).

Instrumental motivation:

This term describes a situation in which students believe that mastery of the target language will be instrumental in getting them a better job. These instruments should help them in attainment of such goals.

Motivation in the classroom

A teacher's personality and everyday behavior in the classroom can become the most powerful motivational tool. It encourages students to overstep their English phobia. So, a teacher will need to cultivate and display the attribute of individual student who is effective as models and socializes it to the target tools. These tools begin with characteristics that make teachers well-liked as: a cheerful disposition, friendliness, emotional maturity, sincerity, and other

qualities that indicate good mental health and personal adjustment. A teacher who attempts to socialize students with the available tools will have positive effects on them. So, to the extent that, students admire his values, opinions and appreciate his efforts. Thus Davis et.al (2001:96) state that:

“... therefore, get to know and enjoy your students, learn their preferred names quickly and use these names frequently as you interact with them. Great them warmly each day and spend some time getting to know them as individuals.”

According to the above -mentioned quotation when a teacher does so, he will learn a lot about students' backgrounds and interests. As the result of that a teacher can incorporate into his teaching in ways that are compatible with curricula goals. Furthermore, a teacher can help students get to know and appreciate learning as a person. This should be done by sharing some of his background, life experiences, interests and opinions to his students.

This proves that, if a teacher does these things properly or deals with his students as close as possible, he will get full interactions and excellent responses. Also, they will help them to become more open and genuine in their interaction as well as retaining their respect for a teacher's authority. Moreover, a teacher tries to help his students to know one another by interviewing them publicly in ways that allow them to share information about their families' interests and hobbies. So, motivation is useful when students are freely engaging in self-chosen activities and the learning usually satisfies their curiosity.

When students are intrinsically motivated, learning is more goals oriented. But these conditions are difficult to establish in the classroom for many reasons:

First, school attendance is compulsory and curriculum contents and learning activities are selected primarily on the basis of what society believes students need to learn, not on the basis of what

students would choose if they are given the opportunity to do so. Also, schools are established for the benefit of students. However, student's point of view is different.

It is that, time in the classroom is devoted to enforce attempts to meet externally imposed demands.

Second, teachers usually must work with classes of 40 or more students. Therefore, they cannot always meet each individual's needs. As the result of that, certain students sometimes are bored and others are confused or frustrated.

Third, classrooms are social settings, so that failure often produces not only personal disappointment but public embarrassment.

These types of conditions don't help in developing the intended skill. Because, for the fear of failure and they are focused on negative emotions.

To achieve all these conditions, a teacher should establish and maintain a classroom as a learning community i.e. a place where students come primarily to learn and succeed through collaboration together. Then, a teacher should focus on things that are worth learning and to develop the content in ways that help students to appreciate its significance and application potential. It is commonly observed that certain preconditions must be in place before motivational strategies can be effective.

Therefore, lower level's needs must be satisfied before higher level needs. So, students' motivations are affected not only by the nature of their learning and the rewards they expect to learn, but also by their environment and other learning conditions. These conditions are as students' social relationship with co-learners and especially their feelings about their teachers. Glasser (1990:57) urges that:

“Teachers should act as lead managers rather than boss mangers. Lead managers motivate by reinforcing rather than pushing, showing rather than telling, empowering rather than overpowering,

emphasizing co-operative work toward shared goals rather than rule enforcement.”

From this citation a teacher should cooperate with students completely. Then he deals with their psychological inners properly so as to get their true feelings. Also, students can express their genuine needs when a teacher socializes himself with them. Comer: (1980:87) proves that:

"School's Environment in which students feel comfortable, valued and secure encourages them to form positive emotional bonds with teachers and peers and positive attitude toward school, while in turn facilitates their academic motivation and learning".

Chapter Three: Data Analysis

1. Students' at secondary school are motivated towards learning English language. Table (6) shows that the most important expression of the first hypothesis for the sample of the study is that "trained teachers motivate the students while teaching English language" whereas the relative importance of it compared to the terms of the hypothesis is 85%

The general mean of the first hypothesis is 3.80, the standard deviation (1.12) and its relative importance is 74%. On average all opinions of the sample agree that qualified teachers are motivated to their students

2. There is a great relationship between motivation and learning English language.

Table (12) shows that the most important expression of the second hypothesis of the study's sample is that: "I feel comfortable in small classrooms when studying English language". The general mean for the second hypothesis is (3.90), the standard deviation is (1.05) and the relative importance is (86%). On average, all the views of the sample agree that the small classroom size has a great role in motivating students.

3. Using various methods and techniques play an important role in learning English language.

Table (18) shows that the most important expression of the third hypothesis for the sample of the study is that "modern methods and techniques help a lot in teaching English language"

The general mean of the third hypothesis is 3.8, the standard deviation is (1.16) and the relative importance is 75%. On average all the views of the sample agree that the school environment has an effect on learning English language at secondary level.

Conclusion

The study has followed different approaches so as to dig deep into the importance of neglected factor (motivation) that facilitate the learning process. Also, the existence of motivation among our schools enhances the positive learning. The hypotheses are based on observation and tested through student's questionnaire have reliable **results**:

- 1.The main reason for it is neglecting of unqualified teachers. Therefore, teachers should be involved in training courses so as to help in solving this problem.
2. school environment is poor and it should be improved.
- 3.This study are of great value and should be put into consideration while the educationists design syllabus, in addition to that, various methods and techniques should be used while teachers are teaching English language.
4. Then the researchers find reasonable percentage of the students who are deprived of motivation have felt frustrated and disappointed while they are involving in the learning process. Despite of the majority of the students know the importance of motivation.

The recommendations of the study should seem to be well-motivated when they are taught by qualified teachers. So, to reinforce the students' motivation, training courses, useful methods and proper strategies should be used. 84% of the students feel relax when they are in small classrooms. Simply because their teachers are managed to control such classrooms properly and the period serves its purposes. Finally, the study revealed obviously that, motivation has received little attention from the educationists as well as the community. Therefore, in the near future and with assistance of the technological methods, motivation will be the main factor in our schools.

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Etude de l'évolution de l'occupation du sol dans le RIF Central :

(Analyse des modifications et de la dégradation des ressources forestières)

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Résumé

Les écosystèmes forestiers dans le Rif central ont subi une régression très forte au profit des zones agricoles, dont la résultante est une dégradation continue de ses peuplements. Cette dégradation est accompagnée d'une réelle déforestation, ce qui menace de disparition la biodiversité forestière et risque de se répercuter sur l'économie du rif, et de menacer la survie de centaines de milliers d'habitants ruraux.

L'objectif de ce travail consiste à évaluer l'impact de l'évolution de l'utilisation des terres sur la dégradation des ressources forestières dans le Rif Central.

Les résultats obtenus montrent que la conversion des forêts en zones agricoles a de multiples conséquences pour l'environnement naturel. La forêt devient instable sous les effets des déracinements successifs qui conduisent à une réduction importante de sa superficie. Cette situation entraîne une dégradation des sols qui entrave la productivité agricole, incitant les agriculteurs à abandonner ces terres et à en chercher de nouvelles.

Mots clés : *écosystèmes – dégradation – Rif central – télédétection – cannabis.*

Introduction

Dès l'aube du XXI^{ème} siècle, l'Assemblée générale des Nations Unies a adopté à l'unanimité une déclaration par laquelle les pays membres de l'organisation s'engagent à préserver les forêts et à lutter contre la déforestation et contre la dégradation des forêts. Cette déclaration importante est comprise dans l'objectif n° 7 du Millénaire du développement, intitulé «Assurer un environnement humain durable».

Dans le but de mieux préserver les forêts et promouvoir leur gestion durable l'Assemblée générale des Nations Unies a proclamé 2011, Année internationale de la forêt¹⁰⁹.

La zone d'étude a une richesse forestière diversifiée qui au fil des siècles a joué des rôles environnementaux, sociaux et économiques fondamentaux dans le développement local. (La zone était connue pour la présence de forêts denses Partout, de hautes futaies où dominaient le chêne, le pin, le cèdre. Il faut voir avec quelle activité la population exploite les richesses forestières. Les grands arbres sont abattus, débités, expédiés à Tanger, Tétouan, et de là en Europe¹¹⁰.

Dans la zone d'étude, les domaines forestiers sont soumis aux grands changements socio-économiques. Ces changements sont à l'origine des contraintes démographiques, économiques et politiques affectant les paysages traditionnels. Ces changements sont de trois types principaux : (1) la croissance démographique continue, (2) l'extension des cultures du kif qui représentent la principale ressource économique de la population (3) Faiblesse des interventions de gestion des eaux et des forêts.

¹⁰⁹ ELLATIFI Mohammed 2012: l'économie de la forêt et des produits forestiers au Maroc: bilan et perspectives. Thèse de doctorat en sciences économiques. Université Montesquieu - BORDEAU IV. P. 13.

¹¹⁰ AUGUSTE Mouliéras 1899: étude géographique et sociologique. Deuxième partie. Exploration des Djebala (Maroc septentrional) PARIS. P. 95.

Parmi les questions qui se posent aujourd'hui; Comment la population rurale peut-elle continuer à vivre en harmonie avec la forêt? et comment les autres acteurs peuvent-ils continuer leurs activités économiques forestières tout en préservant la forêt, sa biodiversité et ses écosystèmes ?

Méthodologie

La première étape pratique de notre travail a été l'utilisation des données d'image satellitaire et du SIG pour la reconnaissance spatialisée des facteurs de la dégradation du couvert forestier. Le traitement de l'image satellitaire nous a permis de réaliser la carte d'occupation du sol. En deuxième étape, nous avons réalisé des cartes thématiques de l'évolution de l'occupation du sol. La troisième étape consiste à superposer ces cartes thématiques pour avoir une carte de synthèse qui représente le niveau de dégradation de la superficie forestière.

Présentation de la Zone d'étude

La zone d'étude (Issauguen et de Moulay Ahmed Cherif) est située au cœur des montagnes du Rif central et administrativement ces deux communes sont situées au sein du cercle de Ketama dans le territoire de la province d'Al Hoceima, qui appartient à son tour à la région Tanger-Tétouan-Al Hoceima, selon le nouveau découpage régional de 2015. Les deux communes étudiées sont situées à l'ouest de la province et sont bordés par :

Du nord : la commune Bni gnil Maksouline ;

Est : communes Zarqat, Bni Bounssar et Taghzout ;

A l'ouest : la commune de Ketama et la province de Chefchaouen ;

Au sud : la commune Abdelghaya souahel.

Résultats et discussion

Le centre de conservation et de développement des ressources forestière d'Issaguen gère une superficie forestière de 12664 ha répartie entre deux communes (Issaguen et My ahmed chrif)¹¹¹.

Tableau n°1: Les formations forestières par espèce et par commune

CR	Cèdre (Ha)	chêne-liège (ha)	Chêne vert (ha)	Pin maritime (Ha)	Vides et essence secondaires	Total Ha
Issaguen	3320	1400	760	1200	720	7400
Moulay Ahmed Cherif	2240	480	570	1040	934	5264
Total	5560	1880	1330	2240	1654	12664

Source: Centre de conservation et de développement des ressources forestières d'issaguen 2021.

La zone d'étude se distingue par une richesse forestière importante et différente, En effet leur superficie totale est estimée à 12664 hectares inégalement répartis selon les deux communes. Au premier rang desquels on trouve ; le cèdre d'une superficie estimée à 5560 hectares, le pin maritime d'une superficie de 2240 hectares, le

¹¹¹ Centre de conservation et de développement des ressources forestières d'Issaguen 2021.

chêne-liège d'une superficie de 1880 hectares, les Vides et essence secondaires d'une superficie de 1654 hectares, représentées majoritairement par L'ARGUIL, quelques plantes épineuses et des lauriers roses concentrés dans les vallées notamment, et enfin vient le chêne vert d'une superficie de 1330 hectares qui résiste aussi bien au froid qu'à la chaleur.

Dans la zone d'étude, on observe de très belles futaies de cèdre qui ornent les montagnes entre 1 500 et 2 500 m d'altitude. Il convient de souligner ici le grand rôle joué par le cèdre dans l'économie forestière marocaine : c'est l'essence la plus importante car elle fournit du bois d'œuvre en quantités appréciables¹¹².

3.1 La dynamique du couvert végétal en utilisant la télédétection durant la période entre 1982 et 2022

Le géosystème montagneux du Rif est considéré comme l'une des régions les plus sensibles aux processus de dégradation à cause de plusieurs facteurs ; Le fort gradient altitudinal, la complexité du système des pentes, le fort compartimentage structural, la prédominance des roches tendres, la grande variabilité du climat, la forte instabilité des sols et le couvert forestier très réduit¹¹³.

Dans le cas des montagnes de Rif central, la dégradation des peuplements forestiers est aujourd'hui de plus en plus alarmante¹¹⁴.

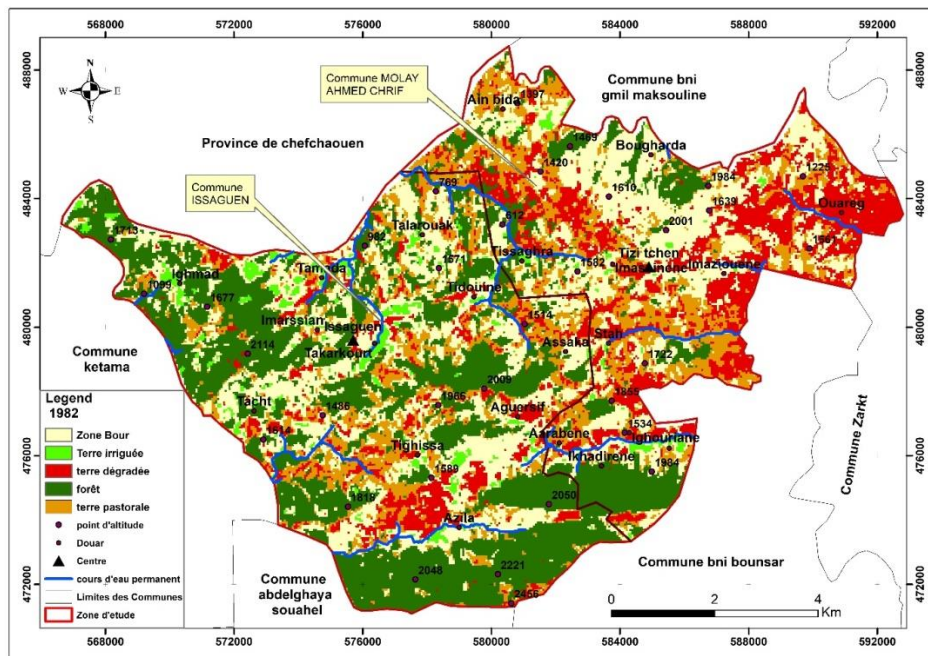
¹¹² BENABID Abdelmalek 1985: LES ECOSYSTEMES FORESTIERS PREFORESTIERS ET PRESTEPPIQUES DU MAROC : DIVERSITE, REPARTITION BIOGEOGRAPHIQUE ET PROBLEMES POSES PAR LEUR AMENAGEMENT. Forêt méditerranéenne, t. VII, na 1. P. 60.

¹¹³ AL KARKOURI Jamal 2017: Les milieux montagneux marocains à l'épreuve du changement climatique (cas de la montagne rifaine) Hespéris- Tamuda LII. P. 238.

¹¹⁴ EL MAZI, MOHAMED et autres (2017): Apport de la télédétection et du SIG au suivi de la dynamique spatiotemporelle des forêts dans le massif numidien de Jbel Outka (Rif central, Maroc). GOT, nr. 11 – Geography and Spatial Planning Journal. P. 173.

La zone d'étude a connu des changements significatifs dans le niveau de distribution du couvert forestier jusqu'en 2022 par rapport à ce qu'il était en 1982. Dans ce contexte, le facteur humain est le principal influenceur dans le domaine environnemental à travers un ensemble d'interventions et de comportements, qui provoquent la dégradation des ressources forestières.

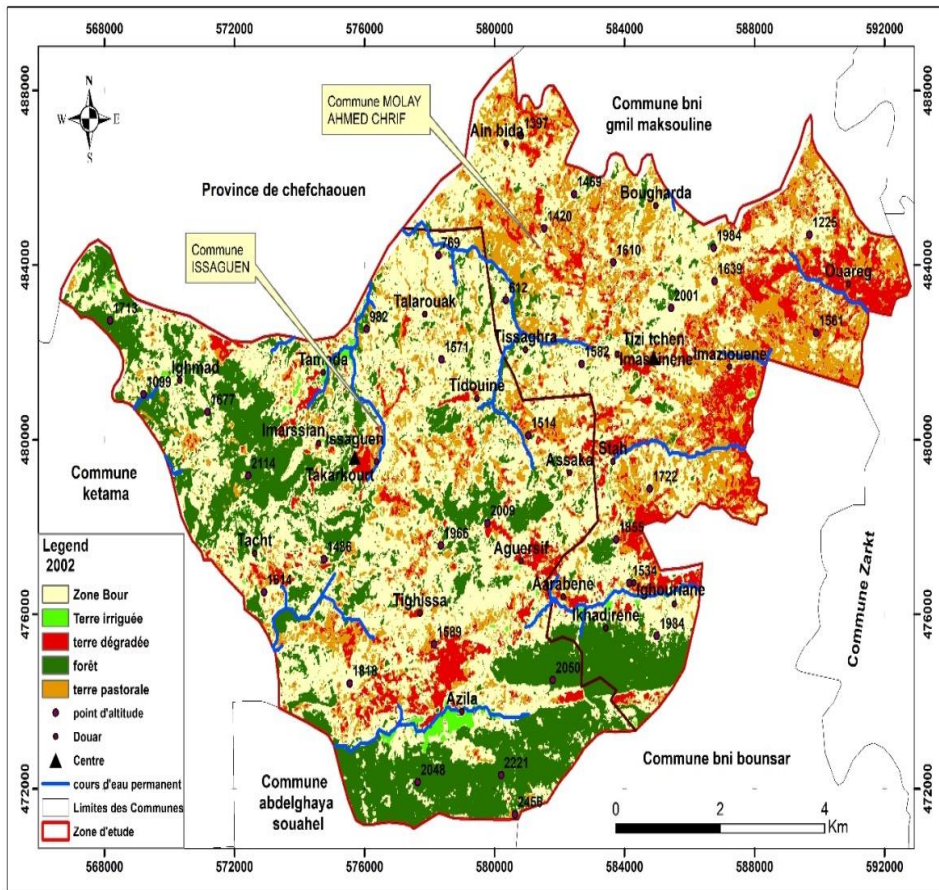
Figure 2: Carte d'occupation du sol en 1982



Source: Analyse d'image satellite Landsat du 06/12/1982

Ce qui caractérisait cette période était la propagation dense du couvert forestier, en particulier dans la commune D'ISSAGUEN, qui constituait une superficie totale d'environ 7 006 hectares. Pendant cette période, les habitants s'adonnaient encore à l'agriculture de subsistance et le taux de dégradation des Ressources naturelles était faible. La zone étudiée était caractérisée par une interaction relativement équilibrée avec les divers éléments de la nature. Certaines zones étaient caractérisées par leur emplacement

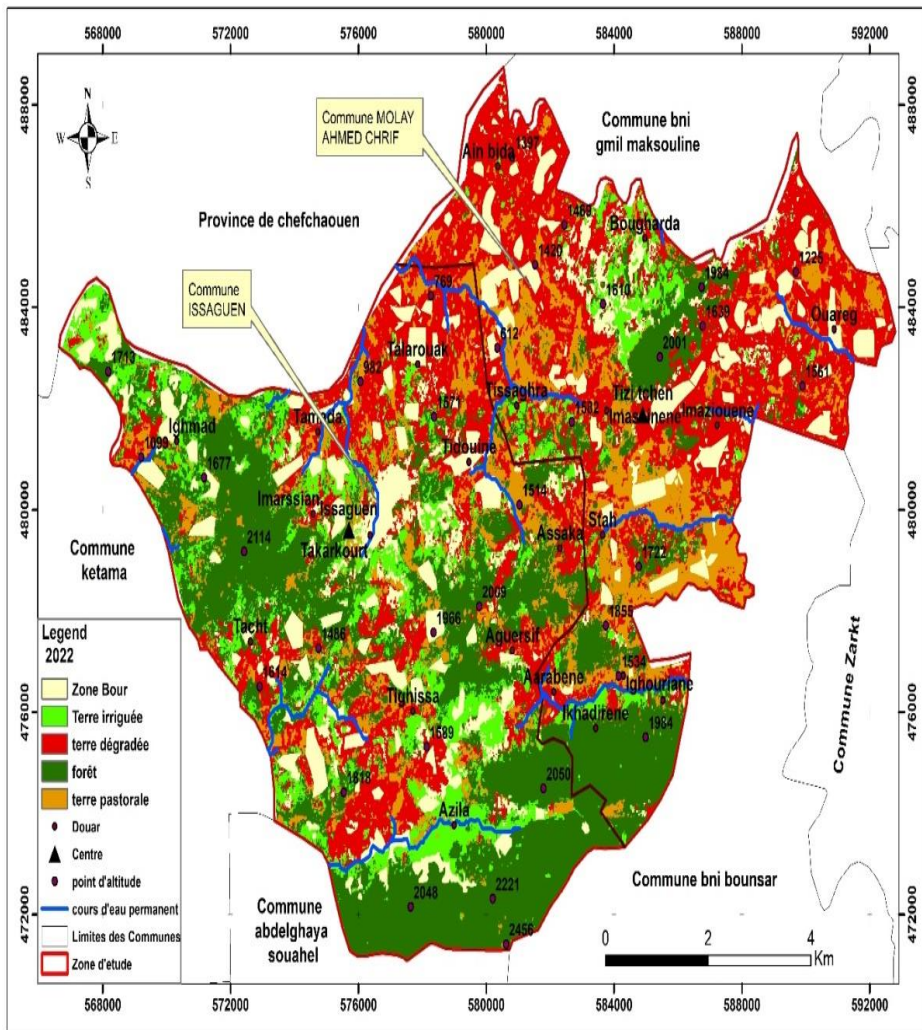
Figure 3: Carte d'occupation du sol en 2002



Il ne fait aucun doute que l'expansion des terres agricoles au détriment de la forêt provoque la dégradation du champ forestier et la réduction de sa superficie, et ce comportement était largement connu dans la zone d'étude, en particulier à la fin des années quatre-

vingt-dix du siècle dernier, coïncidant avec l'émergence de semences étrangères de la culture du Kif telles que pakistanaises et mexicaines qui se sont répandues dans la région et le paysan cherche toujours à étendre sa superficie agricole au détriment du domaine forestier. La carte montre que la superficie des terres sauvages est passée de 6 780 hectares en 1982 à 9 944 hectares en 2002, soit une augmentation de plus de 31% en 20 ans.

Figure 4: Carte d'occupation du sol en 2022

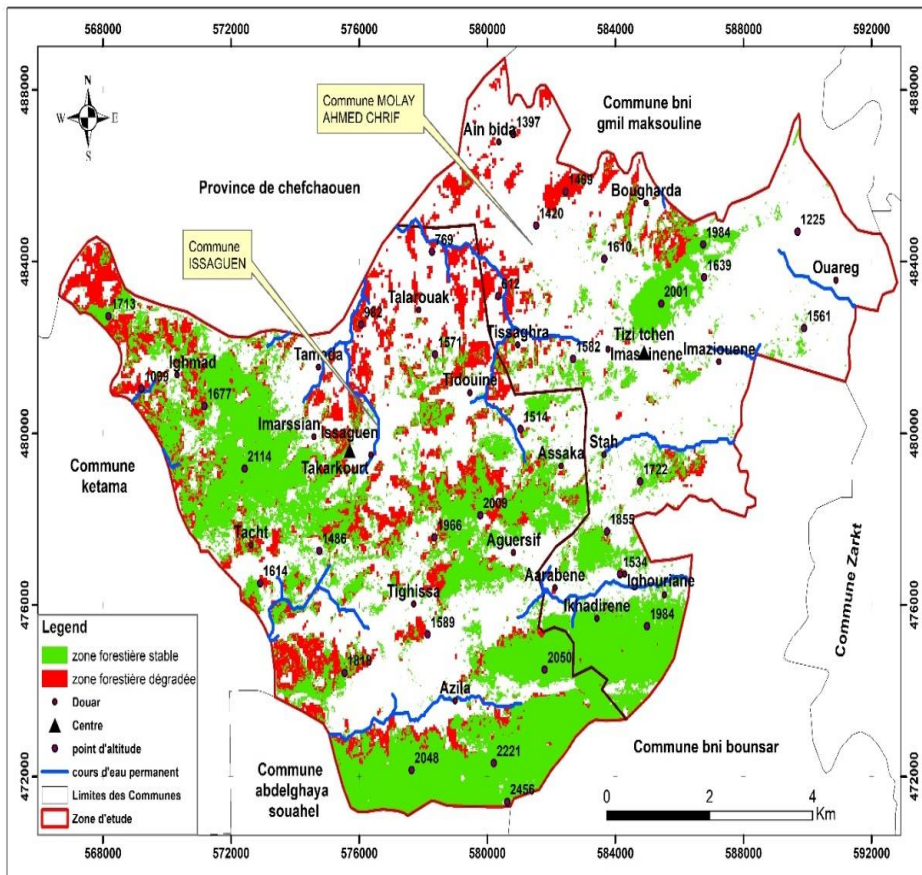


Source: Analyse d'image satellite Landsat le 18/06/2022

Ce qui distingue cette étape, ce sont les efforts déployés par le Centre pour la conservation et le développement des ressources forestières ISSAGUEN, et les administrations extérieures de l'eau et des forêts, à travers une série d'interventions qui impliquaient le boisement de nombreuses zones forestières, en plus de la croissance naturelle de la richesse forestière due à l'abandon par de nombreux paysans de certaines terres acquises au détriment de la forêt, en raison de l'intolérance des hommes de l'eau et de la forêt aux enregistrements et violations liés à l'assaut de la zone forestière.

Mais d'un autre côté, nous constatons que la détérioration du champ en raison de la fragilité des Ressources naturelles et des conditions climatiques difficiles est toujours en cours car elle impact désormais 30% de la superficie totale des deux communautés.

Figure 5: dynamique des domaines forestiers dans la zone d'étude entre 1982 et 2022



Source: Analyse d'images satellite Landsat des années (1982, 2002 et 2022)

On peut voir sur la carte ci-dessus que des zones importantes étaient peuplées de richesses forestières au début des années quatre-vingt, mais la forte croissance démographique a exercé une forte pression sur le terrain. Cela a eu des répercussions négatives sur le couvert forestier, car de nombreuses zones forestières ont été déracinées et sont devenues soit des terres agricoles ou résidentielles, soit des zones dégradées.

Après 1982, avec le passage des années de sécheresse au Maroc en général, la sécheresse s'est manifestée par l'expansion de la superficie agricole, en particulier dans le domaine d'étude,

poursuivant ainsi la série de déracinements de la superficie forestière pour l'acquisition de terres agricoles. Aussi, la plupart des zones forestières défrichées étaient le résultat d'incendies artificiels et d'arrachages.

Tableau n°2: Évolution de l'indice de couvert végétal au cours de la période 1982-2022

Années	1982		2002		2022		Le volume de baisse ou d'augmentation entre 1982 et 2002 en hectares	Le volume de baisse ou d'augmentation entre 2002 et 2022 en hectares
	Superficie en hectare	%	Superficie en hectare	%	Superficie en hectare	%		
Zone Bour	6780	30	9944	44	6102	27	+3164	-3842
Terre Irriguée	678	3	904	4	2260	10	+226	+1356
Terre Dégradée	3616	16	2938	13	4746	21	-678	+1808
Forêt	7006	31	4746	21	6780	30	-2260	+2034
Terre Pastorale	4520	20	4068	18	2712	12	-452	-1356

Source: Analyse d'images satellite Landsat pour les années (1982, 2002 et 2022)

La végétation actuelle de la zone d'étude est semblable à celle de tout le Rif central. Elle résulte d'une influence humaine très prononcée liée au surpâturage, aux incendies et aux coupes de bois, au cours d'une période de temps considérable.

Depuis la mise à jour de la loi marocaine sur les forêts en 1976, l'exploitation forestière représente une ressource financière importante pour de nombreuses communes du Rif. Malgré cet

attrait financier, l'état des forêts est loin de permettre une exploitation optimale¹¹⁵.

Les coupes illégales provoquent d'une part des pertes énormes de rendement et d'autre part influencent de manière défavorable la répartition des classes d'âge.

3.2 Les formes de dégradation des ressources forestières

Les facteurs de dégradation des forêts en général sont nombreux et variés, dans le Rif central, la perte des surfaces forestières, la déforestation est causée par de multiples facteurs, certains humains et d'autres naturels.

3.2.1 Facteurs naturels

Parmi les facteurs naturels on trouve notamment les incendies de forêt, les maladies pouvant affecter les arbres ou les parasites. Ces facteurs naturels peuvent être aggravés par la crise écologique ou la crise de la biodiversité.

Tableau n°3: Etat des incendies de forêts

Année	ISSAGUEN		Moulay Ahmed Cherif	
	Nombre d'incendie	Superficie incendiée (ha)	Nombre d'incendie	Superficie incendiée (ha)
2014	2	0,86	-	-
2015	1	13	1	2,3
2016	3	1,9	3	0,5
2017	3	5	-	-
2018	2	1	-	-
2019	2	1,6	2	1,4
2020	7	5,2	3	1
TOTAL	20	28,56	9	5,2

¹¹⁵ ULRICH Deil 1988: la distribution actuelle et potentielle du cèdre dans le haut rif central. R.G.M. Vol 12, Nouvelle Série, N 1. P. 24.

Source: Centre de conservation et de développement des ressources forestières d'issaguen 2021

Les incendies de forêts constituent la première cause de dégradation forestière à l'échelle nationale, cet espace précieux et souvent très longs à se reconstituer. Ces phénomènes dépendent de nombreux facteurs, la mise à feu qui est principalement d'origine humaine, vient en tête des causes. Cependant, des facteurs météorologiques, écologiques et topographiques favorisent l'éclosion puis la propagation du feu¹¹⁶.

3.2.2 Facteurs humains

Le facteur humain est l'élément le plus important qui affecte positivement ou négativement la détérioration de la forêt, donc après avoir mené une étude sur le terrain avec les ménages des deux communes, de nombreuses causes et facteurs ont émergé qui ont conduit au déclin et à la détérioration du couvert forestier.

Facteur historique

L'exploitation des forêts dans le Rif remonte à plusieurs siècles, car elles étaient caractérisées par la diversité et ne se limitaient pas à répondre aux besoins nécessaires des habitants, de sorte que cela allait au-delà du commerce du bois¹¹⁷.

Aussi des facteurs externes comme la surexploitation des grandes forêts pour le bois d'œuvre par le protectorat espagnol, les grands défrichements de la population rifaine en réaction aux tentatives de délimitation du domaine forestier de l'Etat (dans les années 1960-75)¹¹⁸.

¹¹⁶ LAKHOUAJA. H ; A. Faleh et J. Chaaouan 2019: Modélisation de risque d'incendies de forêts : indice de risque temporel. Cas de la commune rurale de Bab Taza, province de Chefchaouen. Région, environnement et aménagement du territoire, Faculté des Lettres et Sciences Humaines Ben M'sik. P. 80.

¹¹⁷ Auguste Mouliéras 1899: Op. cit. P. 95.

¹¹⁸ GROVEL Rémi 1996: La préservation des forêts du Rif centro-occidental: un enjeu de développement de la montagne rifaine. In: Revue de géographie alpine, tome 84, n°4, P. 75.

Dans ce contexte, la population a été considérée la forêt comme la propriété collective de la tribu, et l'a traduite en brûlant et en déracinant les zones forestières d'une part, et en plantant des arbres fruitiers au milieu des matorral d'autre part.

Facteur expansion des logements et des terres agricoles

Le déclin du couvert végétal dans la zone d'étude est le résultat des différentes activités pratiquées par l'homme dans les forêts, et à cela s'ajoute le défrichement, Ainsi que l'expansion du logement au détriment de la forêt.

Très souvent la forêt a été dégradée par l'homme, en particulier sous l'effet des défrichements pour gagner des terres de cultures temporaires. Le type de dégradation le plus courant est le matorral, matorral élevé, dense¹¹⁹.

Facteur énergétique que ce soit pour le chauffage ou la cuisson

L'obtention de bois de chauffage fait partie des droits d'usufruit des riverains de la forêt, à condition que le bois utilisé soit "mort"¹²⁰. Cependant, en raison des conditions naturelles (climat rude) et des conditions humaines (croissance démographique), la forêt n'est pas en mesure de fournir des besoins suffisants en ce bois, c'est pourquoi les habitants ont recours à la coupe illégale pour subvenir à leurs besoins énergétiques.

De cette manière, le climat contribue à orienter la population vers l'élimination du couvert forestier, en l'absence totale d'aides de l'État avec une alternative qui protège la population de la vague de froid sévère.

¹¹⁹ MAURER. G 1968: Les paysans du haut Rif central, in *Revue de géographie du Maroc*. N 14. P. 10.

¹²⁰ Témoignage d'un garde forestier dans la commune d'Issaguen 2021.

Facteur de pression démographique

L'augmentation connu par les habitants des deux communes, en termes de quantité, Elle fait de l'espace forestier la première ressource pouvant être ciblée à tout moment, d'autant plus que la majorité de la population vit de l'agriculture.

Par exemple : Dans la vallée de Béni Boufrah, l'évolution démographique au siècle XXème a entraîné une forte pression sur les terres agricoles : l'extension des superficies mises en culture dépassent actuellement 80% de la surface totale de la vallée. Cette extension a eu pour résultat une accélération de la dynamique érosive qui se présente sous différentes formes (pertes en terre, accentuation des crues et des inondations et progression du ravinement), véritable danger pour la population¹²¹.

D'autre part, Une étude diachronique effectuée dans le massif forestier de Jbel Outka (Rif central), a montré que les formations forestières naturelles, avaient subi une forte régression de 38% (5179 ha) entre 1962 et 2017 au profit de la culture du cannabis¹²².

La forte densité de population 116,5 habitants/ km² et les ressources disponibles limitées ont conduit à l'expansion des agglomérations de population et au déplacement d'un certain nombre de familles pour s'installer à l'extérieur du douar.

D'après les cartes de dynamique des domaines forestiers dans la zone d'étude, il est clair que les zones forestières qui ont été largement déracinées sont les zones entourant les sous douars. Quant aux grands douars des deux communes, leur arrachage s'est limité aux périphéries des domaines forestiers.

¹²¹ AI KARKOURI Jamal et Autres 2002: Techniques de conservation de l'eau et des sols dans une Zone semi-aride méditerranéenne du Rif central (Vallée de Béni Boufrah). Bulletin du RESEAU EROSION n° 21. IRD Montpellier, France. P. 56.

¹²² El MAZI Mohamed et Autres 2021: Impact de l'évolution de l'utilisation des terres sur la dégradation des ressources en sols dans le Rif Central méridional, Maroc. Revue Marocaine des Sciences Agronomiques et Vétérinaires. P. 567.

À ces facteurs qui contribuent au déclin du couvert forestier s'ajoutent d'autres facteurs moins importants comme le pâturage, qui est devenu une activité secondaire dans l'économie de la région.

Tableau 3: Etat de coupe de bois

Année	ISSAGUEN		Moulay Ahmed Cherif	
	Nombre de PVs	Nombre d'arbres coupés	Nombre de PVs	Nombre d'arbres coupés
2014	57	281	5	86
2015	57	240	4	53
2016	9	104	2	36
2017	57	176	7	49
2018	40	134	4	38
2019	25	79	8	61
2020	47	58	6	72
TOTAL	292	1072	36	395

Source: Centre de conservation et de développement des ressources forestières d'Issaguen 2021.

Le défrichement pour la culture du kif et la coupe pour le bois de chauffage représentent près de 95% du processus de déforestation. Si du point de vue économique, l'accroissement démographique ne s'oppose pas à l'idée de croissance et de progrès continu, la vision globale de l'écologie affirme, au contraire, que cet accroissement est par définition incompatible avec un développement soutenable¹²³.

¹²³ TAIQUI Lahcen 1997: La dégradation écologique au Rif marocain: nécessités d'une nouvelle approche. MEDITERRÁNEA. Serie de estudios biológicos. P. 9.

L'extension de la culture du cannabis, depuis la fin des années 70, est responsable de l'avancée spectaculaire du front de déforestation et reste l'ennemi principal du forestier. La «kifficulture» a ainsi éradiqué la majorité des chênaies du Rif et s'attaque actuellement aux bastions d'altitude que constituent les cédraies¹²⁴.

Conclusion

Cette étude a permis d'analyser la gestion des ressources forestières dans un territoire montagnard, d'une part, et de mettre en évidence la pression croissante sur ces ressources accentuées par les menaces des changements climatiques et l'accroissement des besoins de la population et la culture du kif essentiellement, de l'autre part.

Quels que soient les facteurs; Les impacts sont les mêmes, à savoir la détérioration et la destruction des richesses forestières.

En fin, la préservation des forêts constitue un enjeu indissociable du processus de développement des montagnes rifaines (pour des raisons institutionnelles, sociales, économiques et écologiques), et la seule voie possible réside d'une part dans une modification progressive des systèmes de production et des modes de vie des populations.

Il importe de souligner ici que l'une des priorités les plus urgentes, est la mise en place de réserves de biosphères pour les structures forestières originales qui sont particulièrement vulnérables ou menacées. La réalisation des projets des Parcs Nationaux (Tidghin, Azila, Dahdoh, Tighdouin, Tizitchin, etc.) serait un premier pas dans cette direction.

¹²⁴ GROVEL Rémi 1996: Op. cit, P. 78.

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Collective Cohabitation: From Confrontation to Negotiation

(A Sociological Approach to Neighborhoods Benefiting from the State's Policy to
Eradicate Precarious Housing)

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Abstract:

Through a field study conducted in one of the largest urban agglomerations in the city of Meknes, our aim was to provide a sociological understanding of shared housing within this urban model. This was achieved by attempting to comprehend and interpret the phenomenon of cohabitation as well as the social problems stemming from it, notably conflicts arising from diverse interests and needs, along with their overlaps. Additionally, we sought to understand how residents manage these conflicts by favoring a logic of negotiation over confrontation, highlighting communication elements rather than the causes of conflicts. All of this was done with the purpose of minimizing conflict intensity within this environment that acts somewhat like a microcosm of society, by establishing a local social contract. In our study, we employed a qualitative approach, conducting several semi-structured interviews with a targeted sample of residents from the "Bourge Moulay Omar" and "Ain chabbik" neighborhoods, chosen as models for areas benefiting from the state's policy to eradicate precarious housing. Our study concluded that shared housing is a site of various conflicts triggered by residential tensions and resulting disruptions, intermittently creating tensions among inhabitants. However, these conflicts are often overcome to enable harmonious coexistence, proposing the establishment of a local social contract based on negotiation.

Keywords: housing, shared housing, conflict, negotiation, Bourge Moulay Omar and Ain chabbik neighborhoods.

Introduction:

Moroccan cities have witnessed a significant increase in their urban population. Between 2004 and 2014, the population grew from 16,464,000 to 20,432,000 inhabitants, recording an annual demographic growth rate of 2.2%, compared to 2.1% in the previous decade¹²⁵. This growth has had a major impact on the dynamics of urban areas and has brought about numerous changes at various levels (social, cultural, urban, etc.).

Undoubtedly, the exceptional demographic growth, characterized by its increase and the diversity of its demographic indicators, is unevenly distributed within these Moroccan urban areas. It is particularly pronounced in low-income neighborhoods, especially those benefiting from the state's policy to eradicate precarious and inadequate housing.

Faced with this rapid growth in the demographic structure of Moroccan cities, including Meknes, the demand for all services that the city can provide as a space for the emergence of a new mindset has increased, namely housing. This has necessitated the organization of the real estate sector to accommodate various housing programs. Consequently, the idea of multi-story buildings and apartments emerged, which could accommodate a large number of families on small areas of land (vertical expansion) through collective construction (two or three families, sometimes more). Thus, the question of shared housing could become one of the possible solutions to accommodate a large number of families in the absence of sufficient real estate supply, allowing each family to have independent housing.

Here, the question of cohabitation and communal living will arise again, after having been present in precarious neighborhoods in particular. This phenomenon arouses interest and requires a

125 -Haut-Commissariat au Plan, Statistics for 2004 and 2014.

sociological study, especially as it is spreading not only in Meknes but also in all highly urbanized cities like Casablanca, Rabat, Salé, Fez, and Kenitra, etc.

The population of these neighborhoods is characterized by a set of demographic and socio-economic characteristics (high household size, low level of education, fragile economic base, unstable social and psychological situation, etc.) that make them distinct and different from other residential areas, whether luxurious or semi-luxurious, and give rise to numerous social phenomena and problems. These characteristics, combined with the magnitude of residential tensions generated by this type of housing (cohabitation), which can even reach levels of conflict among residents (cohabiting families), due to the interlocking and interconnection of interests and needs, and sometimes drifting towards deviance and crime, require the activation of principles of dialogue and coexistence. This is based on the logic of negotiation, which favors communication elements over the causes of conflicts, by establishing a local social contract.

Given that Moroccan society is diverse and multicultural, with varied origins, this research aims to understand the way of life within these urban agglomerations and to measure the extent to which residents adapt to this type of housing (cohabitation) and to examine its distinctive characteristics. This will be accomplished by addressing a main question as follows: What are the most significant issues that residents of these neighborhoods face, and how do they manage to overcome these problems that inevitably become sources of numerous conflicts so as to achieve harmony and coexistence in the end?

Indeed, the objective is to delve deep into the daily life and challenges that inhabitants of these neighborhoods confront while living in shared housing. This exploration will unveil how the cultural and economic diversity within Moroccan society manifests

itself in these urban spaces and how residents handle tensions resulting from cohabitation.

Analyzing the challenges and proposed solutions to promote integration and coexistence within these neighborhoods could not only help understand complex social dynamics but also contribute to formulating strategies to foster a harmonious and peaceful living environment within these diverse urban areas.

The objective of this research article is to shed light on the challenges that our cities are currently facing by comprehending the reality of residential neighborhoods, particularly those benefiting from the state's policy to eradicate precarious and inadequate housing. In doing so, we strive to provide a sociological analysis of cohabitation within this urban context, seen as a manifestation of housing policy in Morocco. This analysis involves understanding and interpreting cohabitation on one hand and the resulting social problems that can lead to conflicts on the other. It also explores how residents manage this situation to avoid escalating conflicts and promote negotiation as a means of fostering coexistence.

To achieve these objectives, our approach is based on an ecological theoretical framework, envisioning cohabitation as an interaction between the environment and society. Thus, we adopted a qualitative methodology by conducting semi-structured interviews with a sample of residents from the "Bourg Moulay Omar" and "Ain chebbik" neighborhoods. These two neighborhoods are among the largest urban clusters in the city of Meknes and have been targeted by the government's policy to eliminate precarious housing, either through restructuring or relocation.

In sum, our article aims to deepen the understanding of the cohabitation experience in these urban neighborhoods, as well as how residents cope with various challenges and manage to interact positively despite their diverse cultures and backgrounds.

The Concept of Housing:

Housing, as a crucial element for understanding and interpreting behaviors, imposes upon us the task of precisely defining this concept. If we examine the linguistic root of the word in the Arabic language (س. ك. ن) and explore its verbal and nominal derivatives, we can identify four main meanings, as explained by "Ibn Manzour" in the "Lisan al-Arab" dictionary¹²⁶. The verb "سكن" (sakan) refers to the action of residing in a place intended for habitation. This place is considered the residence, and what is referred to as "السكن" (al-sakan) and "المسكن" (al-maskan) containing "السكن" (al-sukun) (with the letter "kaf"). This designates the person who lives there, i.e., the inhabitants of the place of residence. Furthermore, tranquility and serenity are the primary aspirations that residents seek to achieve in their place of residence.

In Arabic, there are several synonyms for what "المسكن" (al-maskan) can signify. Terms like "البيت" (al-bayt), "المنزل" (al-manzil), and "الدار" (al-dar) can also be used, with some nuances in meaning. These terms are often interchangeable to refer to the place of habitation, but they can also carry specific connotations based on context¹²⁷. In French and English languages, the equivalents of these terms would be "Demeure" and "Maison" for the former language and "House" for the latter. Additionally, this concept is also present in the dictionary of the Amazigh language, where it is translated as "Axxam" (أَخَام), "Tamezdugt"¹²⁸ (تَمَزْدُوغْتْ), then "Tigmmi" (تِكْمِي) and "Taddart" (تَدَّارْتْ). These terms are used by the

126 - Ibn Manzour, Lisan al-Arab (undated), Volume 13, Dar Sader, Beirut, pp. 211-212.

127 -Serfaty, Garzon, P. (2003), "At Home, Territories of Privacy," Armand Colin, Paris, p. 61.

128 - Rizika Boucheleguia, "The Role of Family Housing in Its Interior and Exterior Space in the Formation of a Child's Personality - A Field Study in the City of Tizi Ouzou," Journal of Architecture and Environment for Childhood, Childhood, City and Environment Laboratory, University of Batna, Algeria, Issue 01, April 1620, p.6.

Amazigh people of Souss and southeastern Morocco, and they all signify the notion of residing in a place.

The concept of housing, or what is commonly referred to as "housing," encompasses the various ways in which individuals, families, and communities utilize and occupy their residential spaces. This also includes the ecological context of life in this type of housing; it is an enclosed and covered indoor space where we engage in the act of permanent residence.

Also, it expresses various forms of construction as well as social and familial space.

From a physical perspective, housing is an area or place that consists of rooms, walls, and facilities, with no particular significance for individuals, except for meanings related to satisfying their basic vital needs such as food and sleep¹²⁹. Many thinkers, like the architecture professor at the University of Baath, "Nidal Sattouf," during the third housing symposium held in Riyadh in 2007¹³⁰, have arrived at this idea. He constructs an image of the articulated relationship between containers and their symbolic contents. Here, the encounter between housing as a material space, resulting from architectural and functional transformation of the place, and housing as an experience and concept imbued with representations and symbols, takes on meaning. This process of transformation and utilization is based on pre-existing cultural patterns, even if the space's production was previously carried out by designers to be owned and used in daily

129 -Rachida Afilal, "Housing as Spatial Capital," Scientific Research Journal, Institute of Scientific Research, Dossier number 43-44, 1997, page 83.

130 -Nidal Sattouf, "Formation of the Urban Housing Fabric with an Inner Courtyard for a Single-Family Meeting Human Service, Social, and Behavioral Requirements," Third Housing Symposium "The Neighborhood... More Than Just Housing," High Committee for Urban Development in Riyadh, Saudi Arabia, 2007.

life¹³¹. Therefore, housing extends beyond the space enclosed by walls and roof, where individuals solely respond to their biological and physiological needs. It goes beyond that to satisfy psychological, social, and cultural needs. It's a place that evolves through interaction, cohabitation, and use, thereby transforming a mere space into a gathering place for individuals bound by kinship and neighborhood ties. As such, it generates interactive experiences filled with emotions, communication, and reactions.

From a philosophical standpoint, housing is not just a peripheral element of human existence; it's a vital component as well. Its fundamental importance has been particularly recognized by utopian philosophers like **Thomas More**, **Charles Fourier**, and **Étienne Cabet**, who proposed housing conceptions to accompany and support their projects for improving human life¹³². In contrast to **Le Corbusier's** assertion about the importance and the role housing should play in the human life as a "machine for living"¹³³, "an idea that stands in stark contradiction to Heidegger's poetic perspective famous for his notion of "man dwells poetically."

From a psychological standpoint, **Gaston Bachelard**, considered the precursor of housing psychology, views it as a sequence of images that provide reasons or illusions of stability from his point of view¹³⁴. In his work "The Poetics of Space," Bachelard explains

131 - Roger Perrinjaquet, "Housing: A World of Child Socialization in Industrialized Societies," in the book "Child Socialization Models," Tripoli: Dar Al-Arabiya for Books, collective authors, translated by Saleh Al-Bukhari, 1984, page 167.

132 - Thibaud Zuppinger, "Humanism and Urbanism, Implications Perception, Axiology, and Rationality in Contemporary Thought," Dossier 2009 - Housing, a World on a Human Scale, on the website: [Link](<http://www.Implicationsphilosophiques.org/Habitat/dossier.html>), last visited on 03/16/2019.

133 - Le Corbusier (1925), "Urbanism," G. Crès & Cie Editions, Paris, p. 219. Quoted by Thibaud Zuppinger, op. cit.

134 - Raja Maki Tabbara (1995) - "A Psychosocial Approach to Living Space, Field Study," 1st edition, University for Studies, Publishing, and Distribution, Beirut, page 88.

that housing is our first intimate space, a refuge for our values and intimacy. It's the keeper of all memories and dreams tied to this interior space, carrying special individual values, as emotions reside in us through it. He sees it as our first opening onto the world since birth, a lived and imagined reality, a corner of ours in the world, our first creation¹³⁵.

Bachelard argues that the home preserves our memories of loss, as many of them are preserved through the home, especially if it's a "true home." He believes that an authentic home must be complex, much more than a simple single-story apartment. He argues that there are no true homes in Paris because residents live in imposed structures, rendering urban homes devoid of intimacy due to the density of multi-storey buildings. It also lacks universality because homes aren't directly in contact with their natural environment, and the relationship between the house and space becomes artificial, where "everything around it becomes mechanical, and intimate life escapes in all directions." **Max Bicar** shares this view, stating, "Houses are like pipes that suck humans inside them and expel air"¹³⁶.

From a sociological perspective, housing creates a daily space and frames a series of important family relations and scenes that require thorough exploration. Thus, occupants of a housing are in connection with a social network and specific group or relational models, especially with their families, through specific interpersonal ties. It acts as a link between the individual and society, and it's one of the mechanisms of social integration, given

135 - Quoted by Raja Maki Tabbara in the same reference, page 87: *Cahiers internationaux de Sociologie* (1982)• Volume XIXII: Presses Universitaires de France (P.U.F)• Paris.

12-Gaston Bachelard (1984), "The Poetics of Space," translated by Ghaleb Halasa, second edition, University for Studies, Publishing, and Distribution, Beirut, page 38.

that housing independence is closely linked to the institution of marriage, with all that entails in terms of belonging, regulation, and commitment. The home is almost devoid of meaning and function outside the social and family context, and its creation generally fits within this perspective, fulfilling the conditions of social and moral recognition¹³⁷.

Sociologists consider housing one of the fundamental elements of family life, as it is within it that all social, educational, and ethical functions are performed. Inadequate housing in terms of the number of occupants and minimal living conditions has a considerable impact on the patterns and behaviors of its inhabitants. Most developing countries have addressed the issue of providing adequate housing and conducted studies and research in this field. For some of these nations, housing has become one of their greatest challenges, particularly due to increasing urbanization¹³⁸.

The significance and complexity of sociological analysis of housing lies in the fact that it lies at the intersection of multiple areas of sociology: family sociology, consumption sociology, urban sociology, and social action sociology¹³⁹. Housing sociology focuses on studying the dialectical relationship between housing and the city, a relationship that generates interactions to evaluate the external environment on one hand (residential neighborhood, facilities and services, and transportation), and housing ownership rates, independence, and security on the other hand¹⁴⁰. Additionally,

137 - Imed Soula (2005) - "From the Symbolic Process from the Threshold to the Center of the House: An Anthropological Reading of Traditional Tunisian Housing," Humanities, Issue 29, April-June.

138 - Abdelhamid Dellimi, "The Housing Crisis in Algeria," Doctorate Thesis in Urban Sociology, Institute of Sociology, Constantine, 2001, page 9.

139- Yankel Fijalkow (2011), "Sociology of Housing," La Découverte Editions, Paris, p. 23.23.

140- Fijalkow, Ibid., p. 23.

it delves into the level of urban and social integration in relation to exclusion and marginalization on a third hand.

Housing is considered a crucial element of public policies in the fields of urban planning, public health, social construction, and urban integration (social mix). Therefore, sociology must consider these different dimensions, as emphasized by **Yankel Fijalkow**¹⁴¹, highlighting the connection of this discipline with national identity, as housing is deeply embedded in national planning and public health policies.

Consequently, housing sociology goes beyond superficial aspects of the discipline. It is grounded in the history of each country or even each region¹⁴². Dwellings vary in terms of type, nature of construction, and material characteristics. This diversity explains the qualitative differences and the nature of the social categories residing within. Among the types of housing are those that were composed of corrugated metal houses (baraks) and were demolished and rebuilt as one of the strategic solutions to eliminate them from the urban landscape, in line with the state's policy to eradicate inappropriate housing. Transition to the next part like question or an example of solutions implemented by the government.

Cooperative housing is one of the expressions of the state policy to eradicate shantytowns: an insight into the rehousing projects history in Meknes

Residential neighborhoods affected by this policy have undergone significant physical transformations, transitioning from slums

141- Yankel Fijalkow is a professor of social sciences at the National School of Architecture Paris Val-de-Seine and a researcher at the Center for Research on Housing (UMR LAVUE of CNRS). He focuses on the history of social sciences in urban studies, urban and housing policies, and the gentrification of older popular neighborhoods

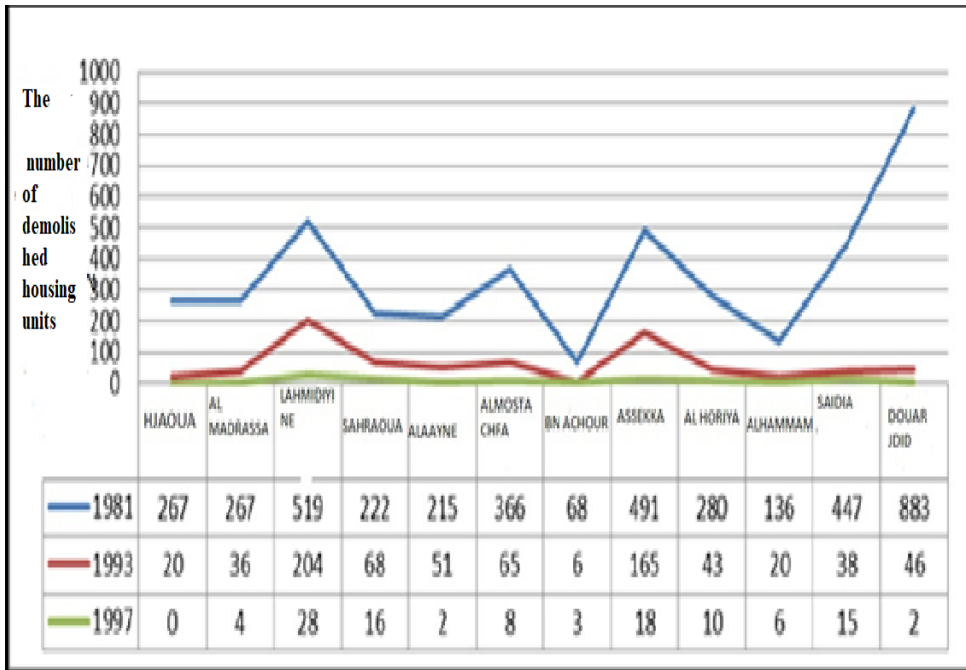
142- Fijalkow, Ibid., p 23.

(known as 'b'raka') to concrete and cement housing (houses or apartments). One of these transformed neighborhoods is Bourj Moulay Omar, one of the largest neighborhoods in Meknes, alongside other neighborhoods such as 'Sidi Baba,' 'Carayan As-Saïdia,' 'Aïn Ash-Shbbik,' as well as others on a national scale like 'Douar El Hajja' and 'Douar El Doum' in Rabat, 'Carayan Skouila' and 'Carayan Touma' in Casablanca, and 'As-Sakniyya' in Kenitra, among others.

Bourj Moulay Omar benefited from a key project titled '**Urban Development Plan (P.D.U)**' as part of the **Restructuring** policy¹⁴³ in the 1970s, aiming to eliminate tin shanty houses (slums). Today, it stands out for its social diversity, manifested through the physical structure of housing and limited infrastructure. The neighborhood now consists of several sub-districts (Houmats حومات), most of which were once slums and have been renovated, especially as part of the Urban Development Program (P.D.U), particularly during the period between 1981 and 1997. The majority of residents did not leave the neighborhood but resettled after the demolition of their substandard housing, rebuilding on the same location. This can be observed through the information below."

Statement No. (1): The evolution of demolition operations in the "Houmats" comprising the Bourj Moulay Omar neighborhood, years 1981-1993-1997

143 -On-site Restructuring involves preparing the corrugated tin neighborhood by subdividing it and providing paved roads, electricity, clean water, sewage pipelines, and basic public facilities.



Source: Regional Inspection of Housing, Urban Planning, and City Policy - June 2013 (As indicated by the researcher).

After the demolition process, only one or two families at most (usually the property owners) can benefit from the construction of a new home on the ruins of the old slums ("b'raka"). This explains why today, two different families can inhabit the same house, with each family having their own apartment after the joint construction of the house. As a result, other families (who used to rent a part of the tin housing in the slum) or new families formed at that time by the owner's children are forced to leave the neighborhood (to build substandard housing in another part of the city), while waiting for future operations and programs, as outlined in the relocation policy. This can be done either within the same neighborhood, as is the case with the Ain Chbbik neighborhood, or from other neighborhoods, as is the case with the residents of the Bourj Moulay Omar neighborhood.

What characterized the Urban Development Program was the absence of a "slippage" phenomenon (transfer of land between households), unlike what occurred in other programs related to relocation or urban rehabilitation policies. This meant that beneficiary families were responsible for building their own homes in which they now live. However, in some cases, other arrangements emerged, including partnerships with other families (non-beneficiaries) who had the necessary financial resources to finance the construction, due to the inability of the first group to carry out these works. This reintroduced the concept of "cohabitation."

Regarding the **Relocation policy**¹⁴⁴, which is part of the state's efforts to eliminate slums from the urban landscape, this was the case for the city of Meknes (in parts of the Ain Chabbik neighborhood and the Marjane III neighborhood). It involves a process aimed at permanently eliminating substandard housing by relocating residents to newly developed or progressively developed settlements. This process has had several results, including the refusal of some beneficiary families to leave their original neighborhoods. This has led some of them, especially in the absence of financial resources, to sell their plots to contractors or speculators. These plots are then used to build and divide into multiple apartments for investment purposes (sale or rent), or in the best cases, they are used for partnership-based construction (the beneficiary provides the land while the contractor handles the

144- This operation was implemented within the urban fabric of Meknes as part of the Marjane City project, following a royal speech in 1992. Land was made available to residents of the tin shanty neighborhoods (slums) at affordable prices. The number of slum housing sites in the city targeted by this operation at the time was estimated to be 18 neighborhoods, in addition to areas where the restructuring process failed through the Urban Development Program (P.D.U)

construction). Thus, a single plot can accommodate three or more families, contributing to population density.

Neighborhoods benefiting from this state policy are now inhabited by former slum dwellers, as well as other groups who arrived through migration processes. Some of these groups come from the surrounding villages of the city of Meknes, such as "Dkhissa," "Boudrballa," "Haj Qaddour," "Khnechate," "Hjawa," "Charagua," as well as hamlets from the city of Agourai, among others. These groups constitute significant contributions to these neighborhoods. Others come from outside the prefecture of Meknes, especially from the provinces of "Rachidia," "Taza," "Taounate," "Kariat Ba Mohammed," and "Kenitra," as well as some residents of socially and urbanistically fragile neighborhoods in Meknes, such as "Sidi Baba," "Bougr'a," "Al Bourg Al-Mashqouq," and "Nzala Al-Riddaya," among others. This type of migration has been previously mentioned by **Dr. Bouchnefati Bouziane**¹⁴⁵ in one of his studies, where he called for research at various levels to highlight the importance of this phenomenon, its causes, and its consequences, particularly regarding the interactions between newcomers and established residents.

This is what we have attempted to address in this aspect, focusing on the culture of marginalization and resulting conflicts among residents.

The decision to migrate, in the absence of academic qualifications or a specific level of professional training, as well as the limited financial capital that the new immigrant possesses to meet their needs while searching for work, often leads to a search for housing in one of the poorer neighborhoods where rents are lower compared to other residential areas. This was observed through our

145 - Bouchnefati Bouziane, in "Urbanization and Urban Culture in Morocco: A Study on the Social Construction of Slums," Al-Hiwar Publications, first edition, 1988.

interviews¹⁴⁶, which revealed that the main reasons respondents who were tenants chose these types of neighborhoods are the low rent amount associated with certain specific characteristics, including cohabitation, small living spaces, insecurity, and the distance from essential facilities and services.

Among the other types of migration observed in Moroccan cities today, and which we considered relevant to include in this study due to their importance in shaping neighborhood structures and increasing the phenomenon of cohabitation and shared housing, is the migration of Sub-Saharan Africans and Syrian refugees, each with their own circumstances that pushed them to leave their countries, either by force or by choice.

However, our study does not delve into the discourse of this type of migration (although it is less prevalent than the previously mentioned types) or its multidimensional approach. Our interest lies in how migrants through this migration contribute to forming a part of Moroccan society in general and the Ismailian city in particular. In addition to choosing to settle in vacant housing, neglected warehouses, or unused residences, some of them have opted for popular or marginalized neighborhoods, which we have observed in neighborhoods like "Bourj Moulay Omar," "Ain Chabik," as well as other neighborhoods such as "Mansour," "Bassatine," "Wislan," and "Marjan III," etc.

These migrants often rent small apartments inside shared and run-down houses, with a large number of people living together. This can potentially lead to material and cultural conflicts in the future.

146 - These are the interviews we conducted with a deliberately selected sample according to specific criteria, as part of our preparation for obtaining a doctorate degree, titled "Housing and Crime: A Sociological Study of Neighborhoods Benefiting from the State's Policy to Eliminate Slums in Meknes." We selected the neighborhoods of Bourj Moulay Omar, Ain Chabbik, and Marjane III as models.

In such neighborhoods, there may be friction between migrants who bring their own cultures and values, which can sometimes contradict those of the host society, and which they have not been able to integrate due to their diversity and multiplicity.

This can lead to various forms of conflicts and value disputes, which can affect the level of social control. This is also what **Clifford Shaw** and **Henry McKay** concluded in their study on the distribution of crime and deviance in the urban context of the city of **Chicago**¹⁴⁷. Thus, we are led to try to understand the impact of this cohabitation on residents by addressing the question: **how can cohabitation be a factor of conflict?**

Shared housing is one of the factors contributing to conflicts among residents

Coexisting with other families within the same housing often raises the issue of managing common spaces, shared facilities, and collective services. This situation entails how to manage shared facilities and amenities, such as the entrance, stairs, roof, lighting, and even water and electricity bills in the absence of individual meters. Furthermore, it also necessitates the management of the courtyard, kitchen, and sanitary facilities, such as toilets, for families sharing the same rooms of an apartment.

Daily conflicts and the tendency towards individual appropriation of communal resources can inevitably lead to disagreements and even a form of chaos and anarchy as described by Emile Durkheim. This concept is considered in social sciences as a state of disruption, anxiety, and instability in individuals resulting from the disintegration of social norms and values or the lack of a unified objective and model. Therefore, in the absence of structured management of shared spaces and elements that promote equity

147- SHAW Clifford and MacKay Henry: *Juvenile Delinquency and Urban Areas*. Chicago: University of Chicago Presse, (1942).

among all residents, this can often lead to conflicts and disputes ranging from verbal arguments to physical altercations and even the use of weapons and other forms of violence. The intensity of these conflicts varies depending on the specific circumstances, making cohabitation housing a prism through which one would understand the conflict that characterizes these disadvantaged and marginalized residential neighborhoods.

Conflict, as an inherently human phenomenon, is an inevitable component of life and human interactions. It reflects an imbalance within daily interactions, where each party seeks to maximize their own interests at the expense of others' interests.

The concept of conflict has several definitions and has sparked different approaches and fields of interest from researchers and specialists. Linguistically for instance, the **"Longman"** dictionary defines conflict as a state of disagreement or discord between groups, principles, or contradictory and opposing ideas¹⁴⁸. That is, conflict arises from the contradiction or confrontation between two forces or groups, often due to antagonistic objectives.

It is the inherent complexity and interconnection of this concept, its various individual or collective levels and its variety of dimensions (psychological, social, cultural, political, economic, and historical) that make its definitions vary based on each field of knowledge. On a psychological level, this concept refers to a situation where the individual is faced with completely opposing activities or choices¹⁴⁹. In this perspective, the importance of conflict becomes evident in understanding issues related to individual human adaptation (especially in a residential environment characterized by varied origins and subcultures), as a

148 - Mounir Mahmoud Badawi, "The Concept of Conflict: A Study on the Theoretical Foundations of Causes and Types," in the journal "Future Studies," Center for Future Studies, Assiut University, Number Three, July 1997, Page 2

149 - Mounir Mahmoud Badawi, op. cit. p. 2.

state of discomfort or psychological pressure resulting from contradiction or lack of harmony between two desires or needs, or more. **Edward Murray** highlighted the importance of this concept for understanding both individual human adaptation on one hand, and processes of mental imbalance on the other¹⁵⁰.

From a social perspective, conflict, as defined by contemporary American sociologist **Lewis Coser**, can arise between individuals, between groups, between individuals and groups, between different groups, or even within the same group or similar groups¹⁵¹. This concept falls within Lewis Coser's field of interest in functionalist theory, through which he contributed to conflict theory by considering it as a confrontation related to desires, values of power, prestige, and even scarce resources. This explanation stems from the fact that conflict is a ubiquitous fundamental characteristic in various aspects of social life. It emerges from the imbalance, lack of harmony, order within a given social environment, and also from the dissatisfaction with material resources, especially shared resources.

In a similar context, the German sociologist **Ralf Dahrendorf** considered conflict as the outcome of relationships between individuals in disagreement about events. On the other hand, **Robert MacIver** argues that the nature of conflict lies more in the interaction between individuals than in the objective itself. Conflict typically arises due to a divergence of interests and is rooted in selfishness and egocentrism, prevailing over altruism.

The majority of conflicts recorded in our study of neighborhoods benefiting from slum elimination policies in Meknes (such as Bourj Moulay Omar and Ain Chabbik) are primarily related to the issue of common space usage, both in quantitative terms (frequency,

150 - Edward J. Murray, Conflict, The Psychological Aspects, in IESS, pp. 220 –225.

151- Badawi, op. cit., p. 2.

duration, etc.) and qualitative terms (exclusive appropriation of certain parts of common space). This can pertain to aspects like staircases, entranceways, or rooftops. This exclusive appropriation restricts the freedom of other residents and can lead to disagreements and quarrels. Poor management of collective resources such as water and electricity, due to the large number of users, can also create tensions. The absence of social control in common spaces makes housing less safe and secure. **Oscar Newman**, who developed the theory of **Defensible Space**, argues that spaces are safer when residents feel ownership of these spaces and take responsibility for them¹⁵².

By examining the common ownership of certain parts of housing, it is clear that the absence of social control can lead to deviant behaviors and even sexual assaults. For example, rooftops, staircases, courtyards, and even toilets can be conducive to clandestine encounters between men and women, resulting in problematic situations such as drug and alcohol consumption, and even consensual or non-consensual sexual relations.

Incidents of this nature have been recorded in our aforementioned study, where cases of rape and sexual assault were documented, leading victims, especially women and children, to prostitution, and to an increasing number of single mothers and illegitimate children. Such acts cannot pass without triggering disputes and conflicts between the victims' families and the perpetrators. These conflicts can escalate to legal proceedings and courts.

Among other factors fueling disputes and conflicts within such communal housing, we note what is commonly referred to as "**Tbarguig**" in Moroccan dialect, a practice that particularly spreads among women. The specific physical characteristics of

152 - Oscar Newman (1972), "Defensible Space: People and Design in the Violent City," London: Architectural Press.

these housing units facilitate the disclosure of individuals' and their families' secrets, which is a clear violation of their privacy and personal sphere. Differently put, what residents of communal housing lack the most is privacy. In fact, 85% of the study sample admitted to the complete absence of privacy, while only 10% expressed that it was moderate. Only 5% of them enjoy some degree of independence and near-total respect for their privacy¹⁵³.

The absence of privacy within these types of neighborhoods characterized by a large number of collective housing units renders their inhabitant's incapable of preserving their secrets, belongings, and even their intimacy. This is partly due to the nature of building materials and housing designs, which allow everything said and done in adjacent apartments to be heard and seen. Moreover, the absence of barriers between housing as private space and alleys and streets as public space creates many privacy issues.

This is evident through doors being open all day or direct encounters (face-to-face) at the doors and windows of most housing units. Thus, we can approach the concept of conflict in most of these housing units from another perspective. Violating individuals' privacy is, in fact, a violation of their dignity. This concept (dignity) is a key social value worldwide. To Psychologists this concept refers to the internal feeling structured in human nature, the sense of greatness and pride among individuals, expressed through concepts like face, honor, modesty, and others, as expressed by **Bourdieu**¹⁵⁴.

153 -Louali Abdelghafour, "Housing and Crime: A Sociological Study in Neighborhoods Benefiting from Slum Elimination Policy in Meknes," is a doctoral thesis in sociology presented at the Faculty of Letters and Human Sciences of Dhar Al Mahraz, Fes, in 2021. The document consists of 322 pages and has not been published.

154 - Soulef Bouzidi, "The Issue of Honor Among Women: A Critical Perspective of the University Student in Oran "Journal of Humanities and Social Sciences," Number 16, September 2014, page 112.

At the same time, sociologists link it to ethics, religion, customs, and values¹⁵⁵, especially when it comes to the woman's body (mother, wife, sister, daughter, etc.), which thus represents one of the sacred that cannot be profaned in any way. This leaves no room for doubt about the occurrence of conflicts that can result from the use of edged weapons or any other type of weapon for its defense, through physical confrontations and verbal disputes.

The issue of communal sharing was not the only source of conflict within these collective residential environments but also through the infringement on the freedom of others. One can witness this through disruptive behaviors such as shouting or noises caused by inhabitants here or there. Also through the chaos that children and teenagers can cause in their common space (the same apartment or house), as there is no educational nor recreational spaces in their neighborhood.

From Confrontation to Negotiation: Overcoming Cohabitation Issues.

Life in collective housing raises the question of the lack of independence for families residing in these spaces, as discussed earlier. This underscores the importance of respecting a social contract dictated by the spatial contract as a result of negotiations. This involves engaging in a set of agreements that frame and govern the movements of residents within the shared space. In case of a breach of this social contract, conflicts can emerge. This concept is explored by followers of Robert Park, who drew from ecology to study human behavior, in addition to concepts such as proximity and harmony, as well as conflict and contradiction.

Robert Park, one of the pioneers of the Chicago School, attempted to examine social issues addressed by conflict theories using the

155 - Soulef, op. cit. p. 113..

framework of the ecological approach, which looks at interactions between individuals and the natural environment, as well as between groups within a given geographical context. This approach aimed to explore the natural evolution of society and resulted in the conclusion that urban life is essentially a life of conflict for survival. Park, thus, addressed various social phenomena related to urban expansion, studying and analyzing them through the lens of social ecology, considering the city as a fertile social laboratory¹⁵⁶. For their study, these researchers examined the characteristics, patterns, and values unique to this environment, as well as individuals' attitudes and perceptions toward what they possess. According to the principles of the Chicago School, the environment is a determining factor in the behavior and values of inhabitants¹⁵⁷. Among the different aspects of conflict studied by the pioneers of this school, ethnic and racial conflicts, gang conflicts, conflicts involving delinquents and criminals, as well as family conflicts, can be mentioned.

The latter were highlighted in William Isaac Thomas' study of the situation of Polish peasants after their migration to America. This migration resulted in disorganization and family conflicts, as well as an increase in crime rates.

The spatial contract encompasses several dimensions, as the living space is an extension of the individual. Researcher **Rachida Afilal** synthesized these dimensions into three points¹⁵⁸ :

156 -- R.E. Park, "The City as a Social Laboratory," in Y. Grafmeyer et al. "The Chicago School," op. cit. p. 179.

157 - Abderrahmane EL Maliki (2015), "Culture and Space: A Study of the Sociology of Urbanism and Migration in Morocco," 1st edition, Publications of the Laboratory of Sociology of Social Development, Sidi Mohammed Ben Abdellah University - Faculty of Letters and Human Sciences Dhar El Mehraz, Fes, page 60.

158 - Afilal", op. cit, page 91.

- **Functional Dimension:** The spatial contract fulfills a fundamental function by organizing and managing space in a way that guarantees the right to common use.
- **Psychosocial Dimension:** The spatial contract establishes rules of interaction among residents, emphasizing balance. This requires the implementation of measures to extend and reinforce this principle.
- **Structural Dimension:** The spatial contract regulates the use of space and movement within it to meet the needs of residents. Thus, it promotes the continuity of residence by maintaining balance in the use of common space.

Through the study we conducted, we have identified various facets of this social and spatial contract that was established through negotiations among residents, based on principles of rights and responsibilities. The concept of negotiation can be discerned by examining the case at hand, its stakeholders, stages, and the desired objective. Negotiation is an expressive and dynamic stance between two or more parties regarding a given issue, through which viewpoints are presented, exchanged, brought closer, adapted, and aligned. All methods of persuasion are employed to preserve existing interests or gain new advantages, compelling the other party to take specific action or refrain from doing so. It is an interconnected relationship between negotiation parties toward themselves or others¹⁵⁹.

Individuals constantly need to resort to negotiation rather than engage in conflicts and use violence and force. The need for security is perhaps one of the individual's primary motivations toward negotiation, and this can only be achieved through the interaction of that individual with others. To meet this need, the

159 - Mohsen El Khodeiry (1993), "Development of Negotiation Skills," Dar Al-Masriya Al-Lubnaniya, Cairo, p.20.

negotiator must adopt a policy of cooperation and exchange with the other party. Furthermore, the need to preserve one's possessions, as well as personal life and privacy, is also among the individual's other motivations. The respect for property replaces its violation and seizure through force and coercion. Without negotiations and resulting agreements, a person would not be assured of retaining anything of their belongings. Likewise, the fear for the violation of one's honor, the honor of one's family, and the concern for the safety of loved ones such as one's mother, wife, daughters, and sons in the face of aggression from others, be it sexual, physical, or mental, are among the primary reasons for this negotiation.

In line with this principle of negotiation, our study led us to a series of images presented by researchers affiliated with " Borj Moulay Omar and Aïn Chabbik." These images revolve around how they manage their communal living space, including taking turns to perform certain household tasks such as cleaning and maintenance. Additionally, individuals in this context ensure the organization and upkeep of common facilities such as staircases, rooftops, and lighting. These activities aim to realize the principle of sharing responsibilities on one hand and fulfilling duties on the other.

These social contracts also address the management of water and electricity consumption in these residences, with residents having shared meters to avoid potential conflicts. This can be achieved through transactional agreements such as "each person must pay a sum of money when using an electrical appliance in their home"¹⁶⁰. This formula helps balance low-consumption users with high-consumption ones.

160 - For example, if the accommodation (apartment or room) is equipped with multiple appliances (television, refrigerator, and washing machine), the owner will pay for their consumption an amount equivalent to the average electricity bill divided by the total number of appliances in the accommodation.

The social contract through which residential families seek to mitigate potential friction and prevent conflicts can sometimes be subject to violations, which may at times serve as an entry point to complex conflicts, including disruptions secondary to the loss of trust and betrayal of trust¹⁶¹. Functional disruption of this spatial contract, meaning disruption in the management and organization of common space and services, will inevitably have an impact on the psychosocial level, thus creating an imbalance and consequently influencing its structural aspect.

This could ultimately impose negative repercussions on the daily lives of residential families, hindering the continuation of the cohabitation process. However, in the absence of alternatives and considering that a significant proportion of them are property owners (own apartments), it is difficult for them to abandon this asset (ownership). Therefore, housing, which is supposed to be a space of cohabitation, coexistence, harmony, and concord, can become a place of conflicts, quarrels, and daily disputes, thus losing its fundamental characteristic as a space cherished by humans and in the words of Gaston Bachler, to become a hell in the presence of others who will spoil the taste of a peaceful life, as proposed by the French philosopher and writer **Jean-Paul Sartre** ("Hell is other people").

Conclusion:

Cohabitation in shared housing provides a significant context for the phenomenon of communal living, which gains increased importance due to its prevalence in urban areas of Morocco, particularly following various initiatives aimed at eliminating inadequate housing from the urban landscape. This type of housing,

161 - When some of them discreetly use small electricity-intensive electrical devices without reporting them, such as the iron, certain electronic games, and computers.

due to the social issues it generates and the conflicts that can arise among its occupants, requires the activation of principles of dialogue and coexistence based on negotiation to prevent disagreements, dysfunction, and disputes.

Individual behaviors and social culture play an essential role in shaping, managing, and yielding outcomes in this process of negotiation, which represents a dynamic and evolving social exchange. Its purpose is to resolve differences of opinion and arrive at a consensus or resolution of disagreements between the involved parties, with the goal of serving their respective interests. A crucial element for the success of negotiation is an exemplary behavior, marked by sincere intentions, thereby fostering the maintenance of ongoing relationships between the parties involved.

In summary, for cohabitation in shared housing to be harmonious and productive, it is essential to promote interactions based on mutual understanding, respect, and negotiation. This approach will contribute to solving problems, preventing conflicts, and creating an environment conducive to peaceful and fruitful coexistence among residents.

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The Honor of Being a Man: Gender Meanings in Dove + Care Commercial

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ABSTRACT

Advertisements are tools to market products, which include ideology and compositional meanings to persuade consumers. This paper aims to investigate gender stereotypes in a 68-second advertisement of Dove Men+Care through semiotics analysis and connotation and denotation theory. The analysis process examines the signs of the commercial and the meaning produced by the signifier and signified. Also, it explores the meanings that lie at the first order of the signification process (denotation) and the meanings that lie at the second level of the signification process (connotation/ideology). The results show that the commercial highlights masculinity and reinforces stereotypes of men by depicting them as they are supreme in society in terms of their physical appearance and their professional status. The findings also indicate that stereotypes against women are still present and that physical feminine attributes (such as long hair) constitute a real danger to masculinity.

Keywords: Gender, Stereotype, Masculinity, Denotation, Connotation

Introduction:

Many people are obsessed with physical attractiveness and their appearance, which constitute the most important aspect of their interests. Consumers build this importance due to the cultural messages they receive from many sources. Eagly et al. (1991) wrote, "In children's television and books, the wicked witch and evil giant are ugly, and the heroic prince and virtuous princess are attractive. In advertising, attractive models appear in positive settings (e.g., in happy crowds, as the object of admiration) and with valued possessions (e.g., fancy cars, fashionable clothes)" (p. 112). Representation of gender in media is a topic that has been subjected to wide discussion and study in communication studies. We, as audiences, are exposed to such representation, and it is important to examine these representations that are transmitted to us. The advertising industry is considered one of the forms that uses gender as a way to market products as it focuses on beauty.

In light of the power of media and the significant effects that it can bring to audiences, business people captured the influence of this power in societies in which companies can take advantage of media to sell their products and services. Such endeavors aim to create a new reality for their products and services. The role of media in advertising has established a relationship between media agencies and advertisers. Advertisers use media to convey messages of products and services to audiences, whereas media agencies depend on advertising revenues to cover their operations costs. Advertising revenues come from many advertisers that market their products and services through these media outlets (Rinallo & Basuroy, 2009). The prime source of these media agencies' income is advertising (Mantrala et al., 2007). At the same time, the media would offer content to attract audiences to offer access so advertisers can reach audiences (Sinclair, 2015).

Based on the development of television advertising and the technological explosion that offered social platforms, which made it easier to access audiences, companies try to put more effort into exploiting strategies of persuasion such as “gender ideology” to convince consumers to buy products. The main purpose of this paper is to analyze the *Brazilian Dove Commercial* by finding out how visual and verbal expressions create gender stereotypes using the semiotics, denotation, and connotation theory of Chandler to explore the portrayal of men and their representation in the commercial against the image of women. (A transcript of the commercial can be seen in Appendix A at the end of this paper).

About Dove

Dove is a personal care brand founded in 1957 that sells beauty products for both men and women. The company presents products of Dove Men+Care that concern men and help 40 million young people build self-esteem and positive body confidence. The brand launched the Dove Self-Esteem Project in 2004 to deliver self-esteem education to young people through lessons in schools, workshops for youth groups, and online resources for parents (Dove, n.d.).

Theoretical Framework

Semiotics was first used by Ferdinand de Saussure, which is concerned with signs of language. There are two founders of semiotics who developed its types; Saussure is the founder of linguists who built semiotics based on language as the system of the sign, and Pierce builds the pragmatic and logical philosophy of semiotics theory. Semiotics suggests that through the signification process, we can know culture and reality by means of signs (Rifa'i, 2010).

Saussure (1967) says that semiotics is the study that examines the way signs work, are produced, and are used in society. Eco (1979) states that **semiotics** is concerned with everything that can be taken as a sign, and the semiotic theory offers an appropriate definition for every sort of sign function. In other words, the semiotic approach is concerned with the how of representation (with how language produces meaning) (Hall, 1996, p. 6).

Saussure divided language into three main parts: signifier, signified, and sign. He posed language based on the relationship between the three parts. The signifier term indicates the meaning of the inscription of the word; on the other hand, signified indicates the mental image in the human mind. Saussure suggests that meaning is produced by the relation between these elements and by difference (Storey, 2018). In other words, the signified is the mental representation of the sign and not what the sign refers to, whereas the signifier is the material aspect (what the sign refers to) (Hasyim, 2015).

According to Chandler (2017), the relationship between the signifier and the signified is referred to as "signification." In a semiotic study, signs can take the form of words, images, sounds, gestures, and objects. Contemporary semioticians study signs as part of semiotic sign systems, and they study how meanings are made and how reality is represented. Signs in media texts from a semiological perspective can be a thing that symbolizes something else. Signs can be divided into images (show things look like real objects), indicators (show the logical connection between things like fire and smoke), and symbols (show conditional values that require special knowledge, for example, flags of States (Berger, 2005). Semiotic analysis uses media texts to analyze the language of signs through identification analysis, which aims to recognize hidden messages in these texts and to understand encoded ideas

(Fedorov, 2015). **Bouzida (2014)** emphasizes that semiotics can be applied in the context of media to analyze media texts: films, TV programs, cartoons, and advertisements.

Ronald Barthes developed the theory of Saussure in his approach of denotative and connotative with respect to images as signs. Qualitative analysis of media content uses semiotics to interpret the visual presentations. Bouzida (2014) argues that media studies need Barthes's perspective of the semiological method at the qualitative analysis level to provide an infinite number of interpretations of texts or images. According to Barthes, the image is related to the aesthetic and ideological factors that are prone to readings and interpretations in order to explain how meaning is created through complex semiotic interaction.

According to Barthes (1957), language needs particular conditions to become a myth, and it is a system of communication (a message) conveyed by a discourse. Myth cannot be an object, a concept, or an idea; it is a mode of signification, a form. He adds that since myth is a type of speech, everything can be a myth as long as it is transmitted through discourse.

Myth can be defined by the way in which the message is uttered, not the object that utters it. Myths can function to hide the ideological function of signs (Chandler, 2017). Myth is not only written discourse but also photography, cinema, reporting, sports, shows, etc. Mythical speech is made suitable for communication because all the materials of myth suppose a signifying consciousness that one can think about them while discounting their substance (Barthes, 1957). In other words, myth is a system of communication with a message; it is the way of interpreting the message. It can be seen if something that is conveyed looks natural, not realized by everyone. Arsel and Thompson (2001) argue that the myth of the marketplace creates connections between

consumption and the commercial mainstream of consumer culture. In semiotics, the myth of advertisements creates social meaning (Hasyim, 2015).

There are two levels of the commercials reading: the "preferred" reading, which is involved in the denotative level (the first-order) that describes the literal meaning of the content, and the "negotiated" reading, which is involved in the connotative level (the second-order) that describes the intended meaning of the content (Hall, 1996). According to Graham (2003), denotation refers to the common-sense, obvious meaning of the sign. A denotative statement is a first-order statement that concerns the literal (first-order) meaning of the words that make up that statement.

Denotation exists in the first level of signification, that is, the literal dictionary meaning of the word (Yan & Ming, 2015). Barthes poses that denotation is a conventional meaning in society, which is the meaning that tends to be agreed upon among the society. It describes the relationship between the mark and the reference to reality (Ariyadi, 2014). Denotation provides a relation between the signifier and the signified that refers to the use of language in which the meaning is explicit and direct (Piliang, 2003). Denotation is the simple, basic, descriptive level, where consensus is wide, and people agree on the meaning (Hall, 1997). For example, the word "cat" refers to a four-legged animal with a tail and fur.

Connotative meanings are associated with the original word and create other, wider fields of meaning. These meanings can act like myths, creating hidden meanings behind the dictionary meaning (Hall, 1980). Denotation for an image implies what the image intends to convey, and recipients would recognize the objects, while connotation refers to socio-culture and personal association of the sign (Chandler, 2002). At this level, "we interpret the completed signs in terms of the social ideology, the general beliefs,

conceptual frameworks, and value systems of society” (Hall, 1997, pp. 38-39).

Denotation tends to be described as the literal, obvious, or common-sense meaning of a sign (what the dictionary attempts to provide), while the term connotation refers to one's point of view (ideological, emotional, etc.) of the sign. These are related to the receiver's class, age, gender, ethnicity, etc. (Chandler, 2017).

Different from Saussure's focus on the denotative level, Roland Barthes concentrates on the second level of the signification process, which is that act that links the signifier and the signified through his analysis of a variety of sign systems derived from bourgeois, occidental popular culture (Caves, 2005, p. 33). The focus of Barthes is the connotation level, which is the implicit meaning of the word and occurs on the second level of signification (Yan & Ming, 2015).

To explain this, Allen (2003) provides an example of the statement, "Prints are winning at the races." In this statement, we have the words used, or what Barthes calls a plane of expression (E), and we have what the words literally mean or the plane of content (C). We then draw a relation (R) between the two (E&C) to find the meaning of the statement. On the denotation level, 'Prints are winning at the races' is a strange statement. Does anyone believe that printed clothes are winning at the horse races? If we simply expect to find the meaning by moving from (E) plane of expression (words used "Prints are winning at the races") to (C) plane of content (the literal meaning of the statement "Prints are winning at the races"), then we will be disappointed. Simply moving from (E) to (C) gives us a nonsensical first-order (denotative) meaning. We need to move to the relation (R) between (E) and (C) and thus to a second-order meaning (connotation) to make any sense of the statement. There is clearly another meaning implied in this statement. This statement exists at the level of connotation. In this

example, the connotation involves a statement about what is fashionable and also an analogy between being fashionable (wearing prints) and power (winning, being seen as a winner) (Allen, 2003, p. 50). The following figure is the sign map of Roland Barthes (Cobley, 1998):

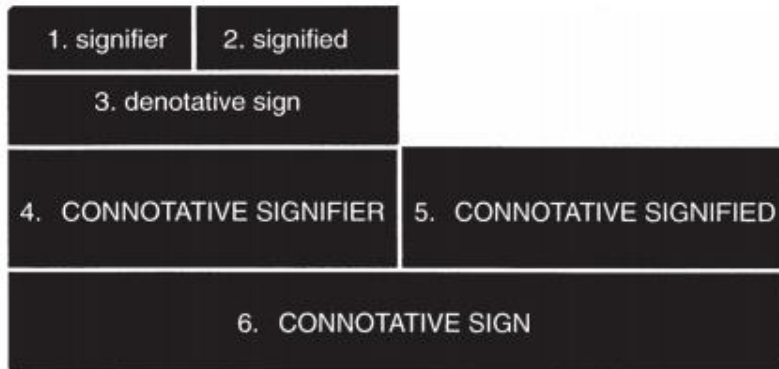


Figure 3: Sign map of Roland Barthes (Cobley, 1998)

Advertising and Media

Advertising is a type of mass communication that informs and transforms information about products by creating an image for those products that go beyond straightforward reality (Wells et al., 2000). According to the correlation between media and the advertising industry, advertisers use media as a medium to convey their products' messages to target audiences. They find that media offers access to the market they seek. On the other hand, Kervin (1990) argues that "the importance of advertising to the mass media stems from that it is the main source of financial support for television, magazines, and newspapers" (p. 54).

The effect of advertising on consumers can be seen based on message repetition. It can be classified into three main effects on behavior: a current effect, a carryover effect, and a non-effect (Pechmann, Stewart, 1988).

Advertisers try to make up their position through well-written and well-designed advertisements to attract their target audience and include these advertisements with hidden messages to reinforce their impact. Advertisement text deals with signs, which include both verbal expression and visual expression.

The visual expressions act with the verbal expressions to make the advertisement's meaning easier to understand by the audience (Wibowo, Gunawan, 2016). Advertisers consider the use of stereotypes to ease communication with the target audience and sell their products rather than using realistic values and beliefs (Kim & Lowry, 2005).

According to Shimp and Andrews (2013), advertising, in general, is valued because it is performing five communications functions:

Informing: Advertising helps consumers to be aware of new brands, educates them about their features, and facilitates them to be well-understood.

Influencing: This means advertisements can influence prospective customers to try advertised products and services.

Reminding and increasing salience: Besides having informative and influencing functions, the advertisement also has a reminding function that helps the companies keep their brand fresh in the consumer's memory.

Adding value is proposed as three basic ways by which companies can add value to their offerings: innovating, improving quality, and altering consumer perceptions. These values help the product to be viewed as more elegant, stylish, and prestigious, which in turn causes increased market share and greater profitability.

Assisting other company efforts: advertisement can assist sales representatives in clarifying the products, and it helps companies to distribute their products.

Gender Stereotypes in Advertising

Although the role of men and women has changed in society, gender stereotypes still exist in advertising as a means to market products. The word "stereotype" is a term coined by Walter Lippmann in his book *Public Opinion*, published in 1922. Allport defines it as an exaggerated belief associated with a category. Therefore, it is untrue and contains self-contradictory (Curtis, 1998). "Stereotype" is also defined by Taylor and Stern (1997) as a generalized and accepted belief about the personal attributes of members of a social category like gender, ethnicity, or sexual orientation.

Kervin (1990) defines "Gender" as the term that is used to emphasize the social and cultural roles people assume as men and women. He argues that "Gender" determines how one experiences the world and, therefore, acts within processes of encoding and decoding sign systems, such as advertising. Rakow (1986) points out that men are the creators of the gendered world. They construct the symbolic order within which male supremacy is reproduced based on their historically dominant social position.

Advertising frequently uses gender roles to market products, and many interests have been shown in the portrayal of men and women in advertising since the 1960s (Eisend, 2010). Barrett (1985) argues the idea that males and females have different social situations and are strengthened by the use of "stereotypes." Ashmore and Del Boca (1981) define "gender stereotypes" as beliefs that certain characteristics differentiate women and men.

Deaux and Lewis (1984) suggest that men and women have four different components: trait descriptors (self-assertion, concern for others), physical characteristics (hair length, body color), role behaviors (leader, taking care of children), and occupational status (employee, housewife). Kervin (1990) contends that advertising

uses codes, ideas, and social values to create denotation and connotation meanings.

Gender stereotypes refer to role behaviors and physical characteristics, and it is used to sell a product (Knoll et al., 2011). Hence, focusing on advertisements and their social and economic contexts can suggest the way gender ideology is built. Gender acts as a meta-meaning system affecting one's choice and the use of several dimensions such as aesthetic codes (lighting and color), fashion codes, non-verbal codes (facial expression and body stance), and codes indicating social roles (who is shown as active/passive, etc.). Advertising depends on social knowledge and cultural trends, seen through gender ideology (Kervin, 1990). According to Curtis (1998), Lippmann stated that the selection of media, information, and pictures, the deliberate inclusion of some information, and the exclusion of other matters have been important for policymakers and for the general public.

In light of the commodified male body, there are a number of men's images in media that promote men's identity through their bodies. It is necessary to highlight how the body is represented and which visual elements are performed to represent the construction of masculinities (Lončar et al., 2016). The biological differences between men and women suggest that there are physical, psychological, and socially differences between the two sexes. However, gender differences between males and females are contained also within their behaviors, traits, and representations associated with the sexes (Kervin, 1990). The elements of dominant masculinity are constructed within heterosexuality, marriage, authority, professional and financial success, ethnic dominance, and physical strength (Lončar et al., 2016).

Parson (1956) stated that the feminine role is defined by the family scale, and the masculine role is related to family life and life outside the family (Amâncio, 1993). While masculinity is not a

fixed entity of body or personality characteristics of individuals, it is a practice accomplished within social action, and it can differ based on relations between males and females in certain social settings (Connell & Messerschmidt, 2005). FITRA (2019) investigated the methods of verbal grammar in the multimodal text in Dove's advertisements. The results show that language in advertisements has a huge impact on consumers' behavior. Brand names are used as an essential element of advertisements to influence consumer memory and, therefore, continue to repurchase it. In the study of Nasir (2018), which aims to investigate the gender discursive patterns in Pakistani television commercials using semiotics theory, the findings reveal that the commercials present layers of meaning through semiotics where men and women are represented in stereotypical manners and gender narratives supporting patriarchal structures. The study suggests that the images of masculine and feminine represented in the commercials strengthen our ideological beliefs about what we think of as masculine or feminine.

Moreover, the study of Kiran (2016) investigated the hidden gender stereotypical messages of men and women in TV commercials. The commercials in the study were reviewed under the categories of sex, role, credibility, location, and product type. The results of this work have shown that all women are depicted as bearing domestic roles such as cleaning the house or cooking, belonging to home settings, and being associated with domestic products. Men were portrayed as having professional status, being authoritarian, belonging to outdoor settings, and being associated with non-domestic products.

Knoll et al. (2011) conducted a study to examine the degree of gender stereotypes in advertisements on public and private TV channels in Germany and how this degree differed between these channels using content analysis. The results show that gender

stereotypes still dominate advertising and public TV channels, and despite their public role, they do not show less gender stereotypes in advertisements compared to private TV channels. Moreover, private channels focus on gender stereotypes in terms of references to role behavior and physical characteristics.

Analysis

Through 68 seconds, Dove constructs a dramatic commercial with two men talking to each other in a dialogue. The commercial aims to market Dove Men+Care shampoo, which is made exclusively for men. The main character is a man called "Diego," and the secondary character is his work colleague. The advertisement has been filmed in a professional work location where the main character works. The main sign of the video is Diego's hair.

In the advertisement, Deigo appears in his office with smooth, long hair and wearing formal wear and a tie. Diego's colleague comes to Diego's office with some papers. He calls Diego's name. Deigo raises his head in slow motion, and his silky hair shows up. Deigo responds yes. A worried look appears on Diego's colleague's face as a reaction to Diego's hair. Diego's colleague asks Deigo: Did you do something with your hair? Deigo responds no! Diego's colleague: Because I see that women's shampoo commercial effect... when you do... like this... Deigo: Really? Touches his hair and realizes that his hair looks like a woman's hair. Diego's colleague: Maybe it is your shampoo.

A close shot of Diego's hand that holds a pink women's shampoo bottle and a picture of a woman with long hair on it emphasizes that Deigo uses women's shampoo, which elongates his hair. Using the flashback feature, Diego remembers that he had used women's shampoo when he had a bath. Deigo was in his actual hair before using the shampoo, so the women's shampoo caused his hair to be long.

Deigo immediately heads to the store to get “men” shampoo. The market shelves are exclusively full of Dove shampoo. Deigo takes a shower with Dove shampoo, and then he stands in front of a mirror with a naked body in a medium shot, which displays that he recovered his actual hair after using Dove shampoo. At the end of the commercial, the commentator says a slogan, "Women's shampoo was not made for you, Men Dove care was," with a shot of a female shampoo bottle among a group of men's Dove shampoo bottles and a man hand replacing the female shampoo bottle with men Dove shampoo “Men + care” bottle.

DISCUSSION

According to the analysis of the commercial, the denotative signifier of the sign is “Deigo is wearing woman's hair”; the denotative signifier of the sign is “Deigo is a man.” The denotation sign is “the woman's hair.” The connotation signifier is “wonder.” The connotation sign (signification) is “Deigo is a woman.” Women's hair is a symbolic sign of the man (Diego).

The commercial is designed to encourage men to use Dove shampoo in order to maintain their masculinity attributes. Through the analysis process of the advertisement, several meanings related to gender were found. Roberts (2019) points out that the portrayal of masculinity and femininity is one of the ways in which the media perpetuates gender-stereotyped ideas and behaviors.

Such images of masculinity and femininity are often examined in relation to gender roles in society (Rohlinger, 2002; Aubrey & Harrison, 2004; Gerding & Signorielli, 2014). Murray (2013) argues that The Dove Campaign for Real Beauty (CFRB), as a case study in the production and consumption of contemporary popular meanings of feminism and social change, opposes feminist politics that advocates liberation and renounces male oppression and focuses on an ideology of beauty that includes only appearance and

behavior. The company thus contributes to undermining the feminist role to bring about social change for women.

In the context of the commercial, the sign on the level of denotation is the product type (shampoo) and features of the product. The meaning of semantics refers to the benefits of a product that enhances the characteristics of masculinity and compares it with women-related products that undermine the characteristics of masculinity. The sign on the level of myth interprets something other than the denotation level.

This argument is consistent with Katz's (2003) idea that there are pressures exerted on men by the media that differ from those faced by women in that they face extreme social expectations. He argues that just as women are pressured to fit media-imposed definitions of femininity as physical beauty, delicacy, and submissiveness, men are also surrounded by media messages outlining the characteristics they must possess in order to be considered real men in society. Katz adds that masculinity is often defined in the media by physical toughness, control, and aggressive force, generating a violent role for them (Katz, 2003).

The theme that covers the commercial video consists of two aspects: “fun” and “wonder.” The fun aspect is represented in the advertisement when Diego’s hair is flying after he raises his head and when he runs to the market to get a bottle of shampoo. A funny image of men is related to gender meaning, and it is represented through the form of the main actor's hair (woman's hair). The wonder is represented in the commercial by the glowing brown woman hair of the main actor (Diego).

The wonder appears on Diego’s colleague's face, having seen Diego’s hair. Diego’s colleague considers that Deigo is using women's shampoo, which is not appropriate for men, or it is a “shame/demerit.” The commercial employs the gender ideology that there is something wrong when men have long and flowy hair.

Masculinity characteristics would be affected if men had long hair because long hair is associated with women, and it would influence their masculine image. This might, in turn, depict women in a low rank. One of the functions of the commercial is to attach a negative image to those who do not use Dove shampoo to encourage them to encounter this image by using the product.

Based on the second-level signification of all the advertisements, there is only one idea offered by the advertiser, that is, women's image against men's image, which emphasizes the gender ideology within the advertisement. The commercial evokes men to use Dove shampoo and stimulates them to avoid a female appearance by buying the product. They would be real men after using Dove. Long hair is associated with women.

The commercial depicts the main character as he responds to a women's shampoo commercial, and he uses this type of shampoo. The commercial suggests the myth that shampoo commercials have impacts on audiences (recipients) and can change their physical attributes, so this commercial encourages men to respond to it and consume the product. Therefore, men would see women's objects as affecting their social values, such as masculinity.

In this context, Katz (2003) shows that when media portrays images of masculinity to target a male audience, advertisers rely on these types of personas to appeal to men's desire to be "real men." He adds that this role was formed through advertisements and media outlets that constantly spread and accumulate messages of power, aggression, and domination. He argues that the pressure placed on men by the media is not only to look at them a certain way but also to "shape" them to be a certain way.

The commercial employs gender roles to target males as they are not supposed to be using what women use to exploit the gender conflict between males and females. When men purchase Dove shampoo, their identity is attached to the product. A common

association occurs with the brand that, in turn, secures its existence in culture. Sean Nixon (1996) suggests that new man masculinity explores it as “a regime of representation” that focuses on four aspects of cultural circulation: television advertising, press advertising, menswear shops, and popular magazines for men.

The visual expression of the flashback scene emphasized a myth that gender type can be changed if one uses the incorrect shampoo. The use of female shampoo is a danger to masculinity. Men should choose "men" shampoo before making a mistake by using "random" shampoo. It shows that "men's shampoo" is a common product and exclusively acquires the market, and it is the dominant product over all other beauty products.

It is also obvious that Dove uses gender ideology that fits the products it wants to sell. The brand tends to employ masculinity in men-related advertisements and uses femininity ideology in terms of women's products. What Shepherd (2011) refers to is consistent with this idea. He argues that the use of sexuality in advertising helps sell products and that sex does help sell.

Moreover, the use of the pink women's shampoo bottle and a picture of a woman with long hair on is to affirm that Deigo does use women's shampoo, which has affected his hair. Pink color means the color that is produced when you mix red and white together (Oxford Dictionary). In the cultural meaning, pink is the official color of girls and represents feminine features such as softness and kindness. The commercial emphasizes the myth that shampoo products have effects on consumers that can change their shapes. The gender role is used to differentiate the physical characteristics of both men and women.

The man in the Dove advertisement seems to have self-esteem about men's attributes, which distinguish them from the female gender. The slogan "Women's shampoo was not made for you, men Dove care was" is used to show that women's shampoo is “low-

ranked,” whereas men would gain a prestigious feature if they tried Dove shampoo. In linguistic terms, the negative word “is not” is used in the commercial in order to show the uniqueness and unparalleled quality of the product. FITRA (2019) argues that the adoption of minor sentences in English advertisements takes less time for the audience to finish reading.

Thus, it can make advertisements short and more clear, concise, distinctive, effective, and memorable. Furthermore, the advertisement focuses on the characteristics of manhood apart from color or any other distracting objects, so the audience can only concentrate on these characteristics to get the viewers' attention to what can make them distinctive and sexy in their appearance.

Dove uses gender ideology to market products not only regarding the social status of men; it also tries to boost the ideology of women's appearance in society to market products related to women. McCleary (2014) argues that Dove is a brand that targets women and claims to hold woman-positive ideals. It promotes a post-feminist, consumerist agenda that reinforces what Naomi Wolf titled “the beauty myth.”

The commercial indicated class differences in gender by drawing attention to the power of masculinity. On its website, Dove identified the Men+Care brand as its strength; { {Dove Men+Care celebrates a new definition of strength: one with care at its center. Because Dove Men+Care believes that care makes a man stronger, real strength is shown through the care you give to the people that matter – and that includes you (welcome to Dove Men+Care).” Bell Hooks (1984) criticized the race bias that occurs when power is solely conceptualized in terms of sex difference.

The orientation of the advertisement draws attention to unwanted female appearance through the slow motion of the man's long hair; however, the advertisement fails to consider men who have long hair in reality. Thus, the advertisement might abuse them by

denying manhood characteristics to those who intend to prolong their hair.

Moreover, the advertisement depicts the main character as a worker by using a work office as a filming location. This implies the occupation status stereotype of men, contrary to women's commercial locations that are often located in the house, as a sign that their typical occupation status is “mother, housewife, etc.”

This refers to the stereotyping of the prestigious status image of men in a society that encourages the male audience to obtain this status by buying Dove shampoo. Lončar et al. (2016) concluded that men should engage in “bodywork” through advertised products, activities, and/or practices in order to achieve their preferred social images. Kiran (2016) corresponds with this point that men were portrayed in advertisements as having professional status belonging to outdoor settings.

Acker (1990) mentions that the concept of “worker” is related to men, those who are committed to paid employment and “naturally” more suited to responsibility and authority, and this argument is consistent with Rohlinger (2002), who conducted a study using content analysis to determine the most prominent features of men in advertisements and their frequency. She argued that several roles have been identified as common representations, such as the hero, the breadwinner, the urban man, and the man at work. One of the most common images was found to be the man at work who is actively involved in his career or area of expertise.

While Acker (1990) points out that “the worker with “a job” is the same universal “individual” who in actual social reality is a man. The concept of a universal worker excludes and marginalizes women who cannot, almost by definition, achieve the qualities of a real worker because to do so is to become like a man” (p. 150). Such findings are similar to what Iiliäinen (2019), who examined gender representations in Dove's advertising images. He argues that

the men appeared to be energetic and doing something, while the women were merely pretending to be watched by the viewer in terms of their physical attributes. Also, he points out that it was shown that there were clear differences in the portrayal of the genders.

Conclusion

Dove constructs its video using verbal expressions to build literal content and visual expressions to create the implicit meaning of gender differences to evoke the audiences to obtain a positive feeling about its product. I have attempted to show how the commercial portrayed men as superior in society, so they are supposed to defend masculinity and their physical appearance. I have argued that gender stereotype is represented in an advertisement while men are doing their stereotyped roles in society. The commercial constructs and ideological gender meanings sell cultural value in addition to the product through the idea men would gain their biological attributes after consuming the product. The relationship was established between social value and the shampoo to create social meaning.

To exploit gender conflict, the advertisement used men's self-esteem and self-identity attributes to distinguish them from women and build a critical image of men who have long hair as they look like women. The analysis shows the Dove commercial reinforces the stereotype of the professional status of men by conceptualizing them as they are related to professional settings. The commercial tries to get men's attention, those who do not care about their shampoo, and evokes them to use men's shampoo just because they are "men."

While this study deals with one advertisement, future research may examine more than one advertisement. It is still possible that there are aspects not covered by the method used in the analysis of this

study. Future studies need to examine the images and words used in advertisements for women and men.

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Appendix (A)

Dove Men + Care Commercial Transcript

Brazilian Dove Commercial: 68 seconds.

Broadcast in 2013 in the Brazilian language.

Music: Girls sound with sound effects (cheery, exciting).

Diego's work colleague comes to Diego's office with some paper while he is lowering his head under his office table.

Diego's colleague: Hmm, Deigo! (Phone voice in the background) In slow motion, Diego raises his head in a manner that shows his long, smooth brown hair and with girls sound and sound effects.

His colleague was surprised after seeing Deigo's hair.

Deigo: Yes!

(Deigo's hair flying in slow motion)

Deigo's colleague (surprised): Did you do something to your hair?

Deigo: No!

Deigo's colleague: because it has a woman's shampoo advertisement look.

Deigo: Really?

(Touches his hair and realizes what his hair looks like.)

Deigo's colleague: It's probably the shampoo you have been using.

(Deigo grabs a pink shampoo bottle with a woman's head picture on it and returns as a flashback when he was having a bath. He runs to the

supermarket to get a Dove shampoo. He takes a bath using Dove. Then, he gets man hair)

Close-up

Narrator: Female shampoo was not for you; Dove men+ care was!

Commercial link: <https://www.youtube.com/watch?v=wiJDi-F4yJY>

***Evaluation of the metacognitive components included in the
Palestinian tenth grade science books
(chemistry – physics – biology)***

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Abstract:

The study was aimed at evaluating Palestinian science books for the tenth grade Palestinian (chemistry, physics, and biology) and analyzing the extent to which they include skills of metacognition. The study used a descriptive analytical method. A tool for analyzing the content of general science books intended for students of the tenth grade in Palestine was built for the academic year 2023/2024 A.D. A list of skills that should be included in science books was constructed after agreement was reached on the analysis procedures and the verification and stability of the analysis tool. The results showed that the books included skills of metacognition (conceptual, procedural, and contextual) is unbalanced: there is too much conceptual knowledge, procedural knowledge is medium, and contextual knowledge is very low.

Keywords: *Palestinian science books, metacognition, contextual knowledge, conceptual knowledge, procedural knowledge*

Introduction:

Science is the key to mankind's future: the universe is full of secrets, and the hard work of discovering them costs us a lot of effort and time. This changing world, which does not prove a single truth or a static one, is sweeping it from far and wide. The education we plan is for a future that has not yet been born. Therefore, the study of science is a link between the structures of the past, the problems of the present and the needs of the future.

Because in the information age, in which the progress of nations is measured by their ability to develop the various branches of science, and to benefit from this development in all areas of life, and because the scientific, cognitive and technological revolution is accelerating at a high rate every day, which is contributing to the increasing problems facing humans, superficial thinking in solving problems is no longer meaningful. Rather, we need more in-depth thinking in order to be able to face problems. For thinking to be more effective in dealing with the complexities of the technological age, it must possess skills that help it to monitor its behavior, plan, adjust and evaluate. Therefore, science education needs to practice thinking processes as it is necessary to help our children by designing a creative learning environment that enables them to realize themselves, discover the existing and inherent relationships between Cognition and then reconstruct it to produce holistic systems and combinations. Types of cognition that can be developed for science are the components of metacognition which are educational innovations that have been of interest to educational researchers.

The concept of metacognition was introduced in the mid-1970s by Flavell, who introduced it in his research on evolutionary psychology's Memory and Metamemory, in experiences that revealed that young children rarely monitor their memory, and that

they are utterly lacking in metacognition skills (Daha and Akasha, 114:2012).

Flavell defined it as knowledge and awareness of one's own cognitive processes, and the ability to actively control and manage them, Flavell suggests that most psychological activities such as cognitive processes, motivations, emotions and motor skills, both emotional and unconscious, can be within what metacognition to cognition (Justice, 2002:19)

Due to the importance of the components of metacognition, it was necessary to scrutinize the curricula and know the extent to which they achieve the goals to achieve the desired quality and the required strength, and thus graduate individuals who are able to keep pace with the present and foresee the future, and this requires a radical reconsideration of the scientific topics presented in textbooks and their quality, so "the curriculum planning process needs serious scientific studies and neglecting these studies leads to leaving decision-makers without scientific support or realistic perception when changing curricula and preparing textbooks (Agha, 1987: 100)

Since the basic stage curriculum is to prepare the ground for the next educational stages, it is necessary to develop students' abilities to deal with the components of metacognition, develop awareness and control of thought processes so that they can integrate thinking into the learning processes in the classroom, which helps them to play a positive role in collecting, organizing, integrating, following and evaluating information during learning (Flemban, 2011:7).

Curricula – especially the Science Curriculum at this stage – play a major role in supporting and guiding the student toward learning and leave their mark in the student's future education. Despite the recent developments in the field of education in Palestine through the development of Palestinian curricula and teacher training, it has emerged through the results of national tests and the TIMSS test

that there is a decline in student achievement, and that there is a decline in student achievement associated with metacognitive components (Shaheen and Rayan, 2011: 199).

The results of the studies of the TIMSS project indicate that there is a clear discrepancy and difference between the science curriculum for the fourth and eighth grades and the cognitive framework of the science curriculum in the same grade in the TIMSS project based on the National Standards for Science Teaching (NSES), which was reflected in the students' responses in the various test images and showed that their achievement levels were lower than the acceptable levels in all Arab countries participating in the project (El-Baz, 2005: 112).

Therefore, curriculum evaluation is one of the necessary processes in the educational process in Palestine, as it results in reviewing, following up and modifying paths to achieve the desired goals, and developing curricula, to achieve compatibility with the needs of the individual and society and to keep pace with the knowledge revolution in all directions (Musa, 2012: 18).

Therefore, this study evaluated the components of metacognition included in the Palestinian science books for the tenth grade, which is considered the conclusion of the basic stage for its importance in developing the student's abilities and to identify the extent to which these books include the components of metacognition and the extent to which they include all components.

Definition of metacognition:

metacognition has been defined by many educational researchers and defined by Flemish (30:2011) as the group of mental activities undertaken by the learner with a degree of awareness during the exercise of the cognitive process, its use of appropriate strategies, its knowledge of the target to be reached, including planning, surveillance, evaluation, and the learner's ability to meditate.

Shaheen Wahrian (200:2011) defines it as "the student's perception of his thought processes, the skills he employs during his learning, associated with planning, tuning and evaluation processes.

Flavell defines it" knowledge and awareness of one's cognitive processes, ability to control and actively manage these processes,flavell suggests that most psychological activities such as cognitive processes and motivations, emotions and emotional and non-emotional motor skills can be beyond knowledge to knowledge (Justice, 19:2002).

Abu Saud (42:2009) defines it as "knowledge of the individual's thinking and practice, which involves planning, monitoring, meditation, perception, control, evaluation and review of thought processes in order to determine the course in which he is studying a situation and determine the extent to which he is in the direction."

Haju (10: 2009) is a set of skills and abilities that help the student to think, and to benefit from his knowledge in solving problems, through the skills of self-evaluation of knowledge (conceptual, contextual, procedural).

Human metacognition refers to the process of knowledge about knowledge, if human knowledge refers to the data and information available and given to the individual, human metacognition refers to internal knowledge and processes of information processing internally and metacognition refers to how the individual thinks and controls his processes (Zachary, 2000: 92).

Based on the above, metacognition is a set of abilities and skills that the learner employs in thinking to solve problems through self-awareness of knowledge, and self-organization of knowledge.

Components of metacognition:

Falafel divided the components of metacognition into two main components, as presented by Afaneh and Khazandar (2004:135-136):

A - Self-awareness of knowledge.

B - self-organization of knowledge.

The following is an explanation of these components

The first component: self-awareness of knowledge:

This component includes three main types of knowledge:

Conceptual Knowledge: This knowledge includes the following

A- Awareness of concepts: This means the learner's knowledge of the concepts he deals with, his awareness of their components, characteristics, uses and the relationship of those concepts among themselves.

B- Awareness of terminology: It is the realization of the meaning of scientific, mathematical, social, economic or other terms, which those terms mean in their content.

C- Awareness of symbols: It is the understanding and awareness of the meaning of abstract symbols and what they mean if they come within a certain content, and whether these symbols are meaningful or not.

D- Awareness of laws: This means knowing the components of the law, whether in science, administrative positive law, constitutional law or others, and knowing the relationship of this law with other relevant laws.

Procedural Knowledge

This knowledge includes different types of knowledge, which are as follows:

A - Awareness of steps: in the sense of the learner's knowledge of the steps that may be followed in reaching the goal or solving a mathematical problem, without addressing the solution or implementing the plan to reach the goal, but rather knowledge of doing something specific and not implementing it.

B- Knowing models: Recognizing certain types of shapes or schemes that relate to a particular content, through awareness of the steps of their formation or organization.

C- Knowledge of solutions: This knowledge refers to ways to solve a particular problem or problem, whether for a problem in science or a specific social problem, where the learner can here understand the steps of the solution and the method of dealing with the problem.

D- Knowledge of structures: It means the learner's awareness of how to synthesize a specific sentence, draw a specific model, build a specific plan, or install a computer, i.e. awareness of the construction steps and compositions.

Contextual Knowledge.

This knowledge includes:

A- Awareness of conditions: Recognizing the conditions for learning a particular problem or giving conditions for a certain learning or behavior to occur, as this behavior and this situation cannot occur if there are no certain conditions or conditions for its occurrence.

B- Recognizing reasons: The learner cannot understand a particular situation unless he realizes certain reasons for the existence of something.

C. Giving justifications: This means justifying the occurrence of a particular phenomenon, clarifying the weaknesses of that phenomenon or situation, i.e. explaining why the learner was unable to solve a problem.

D- Setting standards: in the sense of setting standards or units of measurement, for example, not in order for a reaction to occur, there must be standards in the reaction materials for this reaction to occur.

E - Problem solving: in the sense of understanding the issue or problem, whether stereotyped or atypical and trying to solve it using a certain strategy, and we mean the typical problem is the one that has previously passed on the learner and can use the steps of the solution in a similar issue.

The second component: self-regulation of knowledge:

This component includes three types of knowledge:

A- Management of Knowledge, which includes the following:

Define strategies: Choose a specific strategy of value and benefit for knowledge management and planning.

B- Develop plans: where knowledge management requires developing plans to carry out a specific knowledge task.

C. Building steps: This level requires the formation of a set of steps arranged to accomplish a particular task.

D - Awareness of relationships: This means understanding the relationships between the different aspects of the cognitive position, the learner can not be aware of the cognitive contents without realizing the sequence of those contents and the relationships between their concepts and components.

c. Creating conditions: In order for the task to be accomplished and mastered, appropriate conditions or classroom climate must be in place to accomplish that task.

Evaluation of knowledge: This knowledge includes the following

A - Modifying a pattern: It means that the learner modifies his learning style or behavior patterns that he uses and tries to change this pattern in the light of convincing justifications.

B - Switch strategy: The learner may see that the strategy he used to achieve goals was not useful in developing his abilities and improving his skills towards a specific task or situation, so the learner resorts to modifying that strategy with a more useful one.

C- Improving the context: After the learner uses a certain method to present his ideas in a specific style, and finds that this method was not convincing or expressive, he resorts to reformulating the context better using a certain method in presenting the intellectual contents to improve the context of the topic to become attractive or convincing.

D- Making sure of a solution: It is a method used by the learner to verify the validity of a particular topic, idea or hypothesis, in order to give confidence in the steps he used.

Regulation Knowledge: This type of knowledge includes:

A - Re-plan: In light of revealing the strengths and weaknesses so that the learner can reorganize the scheme or the steps he uses in education or thinking, after he puts his hand on the mistakes of not reaching the required goals.

B- Modifying Outputs: The learner can modify certain outcomes through feedback available in the classroom environment or by modifying himself.

C. Clarification of errors: This means clarifying errors and how they occur, where they occur and when they occur, in order to fade them and get rid of them in his thinking or in the learning methods he uses.

D- Making treatments: This means immediate treatments of the learning steps or thinking patterns used to solve a scientific problem, for example, through follow-up and review.

E- Organization of thinking: This level is the highest levels of metacognition, and this means that the teacher organizes his thinking from time to time in a comprehensive manner, according to the circumstances and conditions he is going through (Afaneh and Al-Khaznadar, 2004. (142-139):

Jacobs and Paris (1987) argue that metacognition consists of two basic components, as described by Fahmy (2003:118-119):

Self-appraisal cognition: It includes three forms of knowledge:

- Declarative Knowledge: It expresses what is known in a particular field, and answers the question of what.

A - Procedural Knowledge: It expresses the different procedures that must lead to the achievement of the task, and answers the question of how (how).

B- Conditional knowledge: refers to knowing why a strategy was chosen, or when a strategy can be used instead of another.

Self-Management of Cognition: It includes three forms:

A - Evaluation: It is an estimate of current knowledge, such as asking the student himself what I read? Or is there more information I can gather before embarking on the task?

B- Planning: It includes setting goals, choosing the necessary strategies and procedures related to the completion of the task, identifying the underlying difficulties and ways to overcome them, and predicting the results.

C- Organization: It includes verifying the extent of progress towards the goal or sub-objectives, and then reviewing and modifying strategic plans based on their success in achieving the objectives.

El-Khouly (2005:20) lists the metacognitive components as shown by Burkowski & Burke (1996):

- Awareness of knowledge: It includes awareness of its abilities, cognitive processes and strategies that it uses in dealing with different life situations

- Self-organization: refers to the modification or change of strategy in response of the individual to the requirements that arise as a result of the performance of the tasks facing him.

It is clear from the above to agree on the two basic components of metacognition, namely evaluation or self-awareness of knowledge and self-organization of knowledge or self-management, and agreement on the sub-components, and accordingly the tools for

analyzing the content of science books for the tenth grade were built, which include the initial dimension of the metacognitive components, which is self-evaluation of knowledge and includes declarative knowledge - procedural knowledge - contextual knowledge (conditional).

The metacognitive components adopted to analyze science books in this study are as follows:

- Conceptual knowledge: It includes all components of scientific knowledge in science books, which are facts, concepts, terms, symbols, principles, laws, rules and theories.
- Procedural knowledge: It included illustrations, solutions and structures, and the processes of science from which observation, classification, conclusion, relationships and experimentation emerged.
- Contextual knowledge (conditional): It included in science books the conditions and reasons, the imposition of hypotheses, and problem solving.

Previous studies

Many educational studies have been interested in evaluating science curricula, including the study of Al-Masry (2013), which aimed to evaluate educational fees in science books for the lower basic stage and enrich them in the light of international quality standards The researcher has followed the descriptive analytical approach, and prepared a list of standards for educational fees in science books for the lower basic stage, and the study sample included science books for the lower basic stage, which is the first grade, second, third, and fourth) and the study found that the number of The tuition fees in the first grade textbook were larger than in other grades.

And the study of Moses (2012), which aimed to evaluate the content of Palestinian and Israeli science books for the fourth grade

in the light of the standards of ((TIMSS) The researcher used the descriptive approach and prepared a list of standards (TIMSS-2011) for the content of science curricula included (99) standards distributed in (6) areas (life sciences, physical sciences, earth sciences, knowledge, application, reasoning), and prepared a questionnaire was applied to (211) teachers and the results indicated a weakness in the percentage of availability of standards (TIMSS2011) in the content of the Palestinian and Israeli science curriculum for the fourth grade.

The general percentage of the criteria (TIMSS-2011) in the content of the Palestinian science curriculum was (37.68%), the percentage of life sciences in the content of the science curriculum (37.93%), physical sciences (32%) and earth sciences (4.6%), and the general percentage of these standards in the content of the Israeli science curriculum for the fourth grade was (42.02%), and the percentage of life sciences in the content of the science curriculum was (68.96%), physical sciences (20%) and earth sciences (26.6%).

The study of Mahjaz (2012) aimed to evaluate the topics of chemistry in science books for the basic stage in light of the requirements of chemical enlightenment .

The researcher followed the descriptive analytical approach, and the researcher prepared a content analysis tool to analyze science books for the eighth, ninth and tenth grades, and the results indicated that the requirements of chemical enlightenment have included five main axes: the nature of chemistry, chemical knowledge, the interrelationship between chemistry, technology and understanding the environment and its problems related to chemistry, and the results showed that the highest percentage of enlightenment requirements The chemical when comparing the three grades (eighth, ninth and tenth) is the requirement of chemical knowledge, which amounted to (75.8%), while the requirement to understand the environment and its problems related to chemistry

amounted respectively to (3.6%) and (6.5%), and the percentage of the nature of chemistry requirement amounted to (0.2%).

The study of Hassan and Abdel Rahman (2007) has aimed to analyze the content of science books for the preparatory stage in the light of educational and technical standards, and the researchers followed the descriptive analytical approach, and the researchers prepared a standard that was applied to a sample of (50) mentors and teachers of science for the preparatory stage in the governorates of Cairo, Qalyubia, Dakahlia, Gharbia, and the island, and the study indicated the lack of standards in the first basic science book.

Lulu (2004) also carried out a study to evaluate the content of the Palestinian science curricula for the upper stage of basic education in the light of contemporary scientific innovations, and the researcher followed the descriptive analytical approach, and the researcher prepared a questionnaire that was applied to (60) teachers and the results of the study showed that the innovations of environment, energy, genetic engineering and agricultural sciences did not take the appropriate degree of attention in the content of the curricula, while the innovations of medical sciences were available to a medium degree and the innovations of communications, space-going and scientific education were available to a good degree.

Many studies have been concerned with metacognitive skills, including the study of Al-Qara'a and Hajjah (2013), which aimed to find out the effectiveness of a program based on blended learning in science teaching in the achievement of ninth grade students and the development of metacognitive thinking skills, the researchers prepared a test that was applied to (140) students from the ninth grade, and the results showed that there were statistically significant differences in the impact of the educational program based on blended learning in achievement and the development of metacognitive thinking skills.

As for the study of Ezz El-Din (2012), which aimed to prepare a proposed program based on the integration between constructivism and brain-based learning to develop metacognitive skills in laboratory investigation among students of scientific divisions at the Faculty of Education, the researcher followed the experimental approach and prepared a list of metacognitive skills associated with laboratory investigation, and the results showed the effectiveness of the proposed program, and the absence of metacognitive skills in laboratory investigation according to the pattern of thinking.

While the study of Jacobse et al. (2012) aimed to identify the competence of metacognition in solving mathematical problems, and followed in this study the experimental approach, and used a questionnaire was applied to (39) students in the fifth grade, and the study indicated the great role of metacognition in solving mathematical problems.

Studies A study of Dhaha and Okasha (2012), which aimed to identify the effectiveness of a training program metacognitive skills in a cooperative context on the behavior of solving the problem among a sample of first-year secondary students, and the researchers followed the experimental approach, and the researchers prepared a training program on metacognitive skills, a test, and a questionnaire that was applied to (21) students, and the results showed that there are statistically significant differences between the average scores of female students in metacognitive skills in favor of the post-test, and the size of the impact was large.

While the study of Al-Khawaldeh et al. (2012) aimed to identify the degree of acquisition of secondary school students in Jerash governorate of metacognitive thinking skills and their relationship to the variable of gender and academic specialization, and the researchers prepared a test that was applied to (380) male and female students from the second grade of secondary school in Jerash governorate, and the results indicated that secondary school

students in Jerash governorate acquire metacognitive thinking skills to an average degree.

The study of Leutwyler (2009) aimed to determine the self-development of students in the use of metacognitive strategies during the secondary stage, and the study was applied to (1432) male and female students of grades (10-12), and the results showed that there is no development in the use of metacognitive learning strategies during the secondary stage, and that the differences are few in favor of females.

Through extrapolation of previous studies, we notice that science curricula have received great attention in educational studies, including studies that have been concerned with evaluating science books and analyzing them according to different patterns of standards, and we note that there is also interest in metacognitive skills, including studies that have been interested in training programs to develop metacognitive skills, and these programs have proven their effectiveness, and there are studies that have been interested in identifying metacognitive skills included in the questions of books, and others interested in identifying the knowledge skills that he possesses. Students and we notice a variety of tools used such as test, analysis card, and questionnaire.

Study problem:

The study problem is determined by the following main question:
What are the evaluative estimates of the metacognitive components included in the Palestinian tenth grade science books (chemistry, physics and biology)?

The main question will have the following sub-questions:

1. What metacognition components should be included in the Palestinian tenth grade science book (chemistry, physics, biology)?

2. To what extent does the Palestinian chemistry book for the tenth grade contain the components of metacognition?

3- To what extent does the Palestinian physics book for the tenth grade include the components of metacognition?

4To what extent does the Palestinian Biology Book for the tenth grade include the components of metacognition?

Objectives of the study:

This study aims to:

- Building a list of metacognitive components to be included in the Palestinian tenth grade science books (chemistry, physics and biology).
- Knowing the extent to which metacognitive components (conceptual - procedural - contextual (conditional)) are included in the Palestinian tenth grade science books (chemistry, physics and biology).

Importance of the study:

- The study provides an integrated model for the metacognitive components to be included in the Palestinian tenth grade science books (chemistry, physics and biology) that may benefit those in charge of designing and developing science curricula.
- This study provides a content analysis tool that includes a list of metacognitive components that must be available Palestinian tenth grade science books (chemistry, physics and biology) that may help educational researchers identify the strengths and weaknesses of the curriculum.
- This evaluation study of science books keeps pace with one of the modern trends, which are the components metacognition, and keeps pace with all developments in the field of formulating science curricula and developing them at the regional and international levels.

Limitations of the study:

This study is limited to analyzing the content of the Palestinian tenth grade science books (chemistry, physics and biology) for the academic year 2023/2024, and the questions in the books were excluded because they have their own analysis.

This study is limited to the first metacognitive component, which is the self-awareness component of knowledge, namely:

Conceptual knowledge: It included (facts - concepts - terms and symbols - principles - laws and rules - theories).

Procedural knowledge: It included (illustrations - solutions - structures - science processes that included observation, classification, conclusion, relationships and experimentation).

Contextual knowledge: It included (conditions and reasons - imposing hypotheses - solving problems).

Study terminology:

Evaluation: It is a systematic process organized and planned in order to issue a judgment on the measured reality, after comparing its specifications that were reached by analogy with a criterion that was accurately determined, and the evaluation in this study was done by monitoring the availability of awareness components of knowledge of science books, with the aim of identifying the strengths and weaknesses in the content of these books in order to take appropriate measures to develop them.

Metacognitive components: It is a set of abilities employed by the learner in thinking to solve scientific problems included in science books through self-awareness of knowledge, and includes conceptual knowledge and included (facts - concepts - terms and symbols - principles - laws and rules - theories), procedural knowledge and included (science processes that consisted of observation, classification, conclusion, relationships and experimentation - illustrations - solutions - structures) and

contextual knowledge that included (conditions and reasons - the imposition of hypotheses - solution problems).

Study Methodology:

This study used the descriptive analytical approach, through the use of the content analysis tool in the analysis of books, and monitoring the extent to which these books include conceptual, procedural and contextual (conditional) knowledge.

Study population:

The study group consisted of the content of the Palestinian tenth grade science books (chemistry, physics and biology) scheduled for the academic year (2023/2024) for tenth grade students in Palestine.

Study Tool:

An analysis tool for analyzing the educational content of science books prescribed for tenth grade students included the conclusion of the basic stage, a list of metacognitive skills (conceptual - procedural - contextual), the objective of analysis, units of analysis and registration and analysis controls, and the following is a presentation of these components.

- **Analysis Objective:** The analysis process aimed to monitor frequencies, and calculate the percentage of self-awareness components of knowledge included in the content of Palestinian science textbooks for the tenth grade (chemistry - physics - biology).
- **Analysis Unit:** The lesson contained in each of the books was chosen as a unit of analysis.

Analysis categories: The categories of analysis were identified by the first component of metacognition, which is the self-awareness of knowledge and consists of knowledge (conceptual - procedural - contextual) and the following is an explanation of each of these components and their procedural definition, noting that reference was made to Agha and Lulu (2009) in the definition of components:

A. Conceptual knowledge included:

Facts: It is simplified qualitative scientific knowledge that does not include generalization, fragmented, correct and unquestionable, that can be modified in the light of the emergence of new evidence.

Concepts: It is the knowledge that expresses the mental images that the student has about the common and distinctive qualities of something, and consists of the name and semantics.

Terms and symbols: It is the knowledge that specializes in symbols, relationships, abbreviations and units of measurement.

Principles: A scientific product that links a set of scientific facts and concepts in a descriptive way (non-quantitative quantitative) to describe a particular phenomenon or scientific relationship in the phenomenon.

Laws and rules: a quantitative and qualitative relationship between scientific concepts and facts, where the relationship can be described and clarified in a digital or qualitative form.

Theories: A frame of reference based on a set of assumptions that combine facts, concepts, principles, laws and practical rules in relationships aimed at describing scientific phenomena, interpreting them and predicting their consequences so that they can be controlled.

B - Procedural knowledge: It included:

1. Science operations that included:

- **Observation:** It is the knowledge that the senses are employed in obtaining, and does not include explanation or inference, it is an intentional organized and controlled attention to phenomena or events in order to discover the causes and relationships that make up them and their laws.
- **Classification:** It is the knowledge that consists in collecting information and data to place elements in certain categories or groups based on common properties and criteria between them, and the classification skill includes the ability to distinguish, compare

and identify similarities and differences between materials and things.

- **Conclusion:** It is the knowledge that consists of drawing conclusions and formulating them accurately and determining the causes of phenomena based on scientific generalizations.
- **Relationships:** It is the knowledge that expresses the interdependence of two concepts or two or more variables and was represented in this study by spatial or temporal relationships between the relevant scientific concepts.
- **Experimentation:** represented in all scientific experiments used to solve scientific problems and prove hypotheses.

2. Figures and illustrations: They were represented in all the educational forms and drawings included in the book, which are used to illustrate information and knowledge.

Solutions: Models and examples of solving problems, or equations and problems for solving.

Structures: proposed new concepts, proposals for solving environmental problems, developing scientific instruments, etc.

Contextual knowledge: It included:

- **Conditions and causes:** Knowledge that consists in determining the conditions and causes of the occurrence of phenomena.
- **Hypothesis:** Knowledge that is represented in the possibilities posed to solve a particular problem.
- **Problem solving:** represented in the steps of solving scientific problems and creativity in the steps of solving scientific problems.

Analysis controls: All units included in the books were analyzed, ideas, information, activities, figures, and illustrations were analyzed.

Validity of the analysis tool: The analysis tool was presented to a group of arbitrators with competence in curricula and methods of teaching science, supervisors and teachers of science in the field, to

express their opinions on the list and its appropriateness in using it as an analysis tool and was modified in light of their guidance.

Reliability of the analysis tool:

The stability of the instrument was verified as the first unit of the chemistry book for the tenth grade was analyzed by three science teachers, and the coefficient of agreement was calculated using the Holsti equation to calculate the coefficient of consistency across people (Taima, 1985: 177), and it turned out that the total stability coefficient is (0.96), which indicates the stability of the analysis tool and the possibility of using it in the analysis process.

Analysis Procedures: The latest edition of the science books scheduled for the Palestinian tenth grade (chemistry - physics - biology) was obtained in the Palestinian education ladder in the year 2023/2024.

Answer to the questions of the study:

Answer to the first question: which states:

What metacognitive components should be included in the Palestinian tenth grade science book (chemistry, physics and biology)?

To answer this question, the educational literature and previous studies related to the subject were reviewed, and a list of self-awareness components of the knowledge to be available in the Palestinian science books for the tenth grade (chemistry - physics - biology) was built, and then it was presented to a group of competent arbitrators, and it was modified in light of their guidance, and therefore the final list contained three main components (conceptual knowledge - procedural knowledge - contextual knowledge), and a branch of the conceptual knowledge skill (6) sub-components, namely (facts, concepts, Terms and symbols, principles, laws and rules, theories), and the branch of procedural knowledge (8) sub-components (observation,

classification, conclusion, relationships, experimentation, illustrations, solutions, and structures), branched from the skill of contextual knowledge (3) sub-components (conditions and reasons, imposition of hypotheses, and problem solving).

Table (1)

Results of the analysis of the tenth grade Palestinian chemistry book in light of the component of metacognition (conceptual knowledge

Conceptual knowledge repetition		Theories	Laws and rules	Principles	Terms and symbols	Concepts	Fact	
%	Repetition	Repetition %	Repetition %	Repetition %	Repetition	Repetition	Repetition	
15.42	72	1	-	1	41	5	24	1
19.91	93	—	5	4	51	6	27	2
18.42	86	—	—	1	57	16	12	3
16.49	77	-	-	8	48	2	19	4
29.76	139	-	3	-	73	8	55	5
100.00	467	1	8	14	270	37	137	All
	100.00	0.21	1.71	3.00	57.82	7.92	29.34	%

Answer to the second question, which states:

To what extent does the Palestinian chemistry textbook for the tenth grade include metacognitive components?

The units included in the Palestinian chemistry for the tenth grade were analyzed for metacognitive components and tables (1), (2), and (3) show the results of the analysis:

Table (2)

Results of the analysis of the tenth grade Palestinian chemistry book in light of the components of metacognition (Procedural Knowledge)

%	Procedural knowledge repetition	The procedural knowledge of the tenth grade chemistry book								Unit
		Structure	Solution	Figure	Science operation					
		Repetition	Repetition	Repetition	Experimentation	Relationship	Conclusion	Classification	Observation	
					Repetition	Repetition	Repetition	Repetition	Repetition	
25.90	43	7	-	17	10	0	3	0	6	1
25.90	43	3	15	12	3	1	4	-	5	2
23.49	39	1	-	16	8	-	3	2	9	3
13.86	23	1	4	10	1	-	-	1	6	4
10.84	18	2	6	6	2		2	-	-	5
100.00	166	14	25	61	24	1	12	3	26	All
	100.00	8.43	15.06	36.75	14.46	0.60	7.23	1.81	15.66	%

Table (3)

Results of the analysis of the tenth grade Palestinian chemistry book in light of the components of metacognition(contextual knowledge

%	Contextual Knowledge repetition	The contextual knowledge of the tenth grade chemistry book			Unit
		Problem solving	Hypothesis	Conditions and causes	
		Repetition	Repetition	Repetition	
24.24	8	—	2	6	1
9.09	3	2	-	1	2
60.61	20	-	1	19	3
3.03	1	-	-	1	4
3.03	1	-	-	1	5
100.00	33	2	3	29	All
	100.00	6.06	9.09	87.88	%

A review of Table 1 on conceptual knowledge contained in the Palestinian tenth grader chemistry book reveals that more content consists of terms and symbols, followed by facts and then concepts. There is a low presence of principles, poor presence of laws and rules, and theories only once. For the procedural knowledge of the same book, Table 2 we see a greater amount of procedural knowledge in the availability of illustrations. There is convergence in the availability of observation, experimentation, and solutions. The conclusion is a small and close As for relationships, there was only one relationship. In a survey of Table 3, we deem that conditions and causes are very few and assumptions are rare. There

are only three of them, and they share a scarcity of problem solving that is repeated only twice. The researcher suggests that this could be due to the fact that the curriculum is not experienced in the metacognition components

The answer to the third question, which states:

To what extent does the Palestinian physics textbook for the tenth grade include metacognitive components?

The units included in Palestinian physics for the tenth grade were analyzed for

metacognitive components and tables (4), (5), and (6) show the results of the analysis

Table (4)Results of the analysis of the tenth grade Palestinian

Conceptual knowledge of the tenth grade physics book								
Conceptual repetition	knowledge	Theories	Laws and rules	Principles	Terms and symbols	Concepts	Facts	
%	Repetition	Repetition	Repetition	Repetition	Repetition	Repetition	Repetition	Unit
34.57	149	-	28	6	80	33	2	1
12.76	55	-	10	2	34	4	5	2
38.73	167	1	20	8	60	16	62	3
13.92	60	-	-	-	8	22	30	4
1100.00	431	1	58	16	182	75	99	كل
	100.00	.23	13.46	3.71	42.23	17.40	22.97	%

physics book in light of the components of etacognition (conceptual knowledge)

Table (5)

Results of the analysis of the tenth grade Palestinian physics book in light of the components of metacognition(procedural knowledge

Table (6)

Results of the analysis of the tenth grade Palestinian physics book in light of the components of metacognition (contextual knowledge)

%	Contextual Knowledge repetition	Contextual Knowledge of the tenth grade physics book			Unit
		Problem solving	Hypothesis	Conditions and causes	
		Repetition	Repetition	Repetition	
6.38	3	-	3	-	1
21.28	10	-	2	8	2
27.66	13	-	5	8	3
44.68	21	-	4	17	4
100.00	47	-	14	33	All
	100.00	00.00	29.97	70.21	%

By extrapolating the tables of the components of physics knowledge in the physics book for the Palestinian tenth grade, we notice from Table (4) that there is an availability of conceptual knowledge in different proportions for each component, although most of them are terminology, followed by facts and then concepts, and then laws and rules, and the principles are few and only one theory was mentioned, while Table (5) on procedural knowledge has shown that there is a diversity in the proportions of the components of procedural knowledge, most of which are the following illustrations.

That solutions and this is commensurate with the nature of physics where the nature of the emitter depends on the solution of problems, and there is convergence in the amount of observation, experimentation, compositions and conclusion, and less than the above relationships and the weakest percentage in the classification, and for contextual knowledge Table (6) Its components were available in a few proportions, especially in the conditions and reasons and in the imposition of hypotheses and there is a complete lack of problem solving, so the researcher believes that it must be repeated Considering the content of the physics curriculum and enriching it with the components of metacognition that are lacking and increasing the few and weak in proportion to the nature of the main titles of the units and the age stage of the students

The answer to the fourth question, which states:

To what extent does the Palestinian biology textbook for the tenth

%	Procedural knowledge repetition	Procedural knowledge of the tenth grade physics book								Unit	
		Structure	Solution	Figure	Science operation						
					Repetition	Experimentation	Relationship	Conclusion	Classification		Observation
40.88	121	11	36	32	8	6	10	5	13	1	
16.22	48	8	5	14	9	4	4	-	4	2	
22.30	66	3	11	14	13	6	10	-	9	3	
20.61	61	3	2	39	3	-	1	1	12	4	
100.00	296	25	54	99	33	16	25	6	38	All	
	100.00	8.45	18.24	33.45	11.15	5.41	8.45	2.03	12.84	%	

grade include metacognitive components?

The units included in the Palestinian Biology for the tenth grade were analyzed for metacognitive components and tables (7), (8), and (9) show the results of the analysis

Table(7)

Results of the analysis of the tenth grade Palestinian biology book in light of the components of metacognition (conceptual knowledge)

Table(8)

Results of the analysis of the tenth grade Palestinian biology book in light of the components of metacognition (procedural knowledge)

Table(9)

%	Procedural knowledge repetition	Procedural knowledge of tenth grade biology book								Unit
		Struct ures	Solutio ns	Figure s	Science operation					
		Repetition	Repetition	Repetition	Experime ntation	Relati onshi p	Con clusion	Classifica tion	Observati on	
					Repetition	Repetition	Repetition	Repetition	Repetition	
29.76	75	3	-	42	3	-	1	6	20	1
13.49	34			17	2	1	-	-	14	2
32.14	81			52	7	1	2	1	18	3
24.60	62			36	2	1	-	9	14	4
100.00	252	3		147	14	3	3	16	66	All
	100.00	1.19	0.00	58.33	5.56	1.19	1.19	6.35	26.19	%

Results of the analysis of the tenth grade Palestinian biology book in light of the components of metacognition (contextual knowledge)

%	Contextual Knowledge repetition	Contextual Knowledge of biology book			Unit
		Problem solving	Hypothesis	Conditions and causes	
		Repetition	Repetition	Repetition	
8.82	3	-	1	2	1
8.82	3	-	-	3	2
55.88	19	-	2	17	3
26.47	9	-	-	9	4
100.00	34	-	3	31	All
	100.00	-	8.82	91.18	%

By extrapolating the tables of the components of metacognition of biology writers, we notice from Table (7) that there is an abundance in a number of them, most of which were terms and symbols, followed by facts and then concepts, while the principles were few in number (12) and the researcher found a scarcity in laws and rules, so you are repeated only twice, and the theories did not mention only one theory, and the researcher noted from Table (8) on procedural knowledge that they are available in varying proportions, most of which are illustrative forms and Then observation and there is a convergence between classification and experimentation in the lack of availability, there is equality in the scarcity of conclusion, relationships and compositions, they were repeated only three times, and from Table (9) we note that it was limited to its availability in the component of conditions and reasons and the imposition of hypotheses and if the imposition of hypotheses is rare, it was available only three times and the table showed a lack of problem solving component, so the researcher

believes that it is better to reformulate the curriculum and enrich it with components that suit With the nature of the subject and the age stage.

By comparing the researcher between the components of the three books, she noticed that they all share that the largest amount of metacognitive components available are terms, symbols, illustrations, there is a lack or almost no problem-solving, and this is one of the important components that must be re-fed curricula, and the ratios in the other components have a kind of randomness that increases, decreases or non-existent in the various units in the three books, so they must be reviewed all and Taking into account the integration between them in the content and quality of metacognitive components commensurate with the age stage by scientific specialists who have experience in metacognitive components.

Recommendations:

- The need to prepare courses for science teachers to develop awareness of metacognitive skills, and how they can be developed.
- The need to prepare educational programs in order to develop metacognitive skills among students.
- The need to work on analyzing all curricula to identify the extent to which they include and comprehensiveness on metacognitive skills to help later develop curricula.
- Work on reformulating the curriculum by specialists so that metacognitive skills are included in a balanced manner, with a focus on quality rather than quantity.
- The need to develop teaching strategies that help develop metacognitive skills, and train teachers to use these strategies and conduct studies to identify their effectiveness.

- The need to train student teachers during university study to use metacognitive skills, and metacognitive skills must be included in the university curriculum.

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Study of building a framework for modeling and simulation of cloud computing (infrastructure and services)

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Abstract:

The study aims to build a framework for modeling cloud architectures for electronic clouds, define an approach that works efficiently and effectively to simulate infrastructures, and compare the results with a real cloud environment to improve services, because experiments in a real cloud environment are very difficult and expensive, which produces unexpected reports in the implementation phase. It is difficult to solve in order to perform operations again and determine what is required. The importance of the study lies in the possibility of expansion, development, building and testing of technologies to improve services, for the total adoption of this technology by institutions. The study used the applied descriptive analytical approach, by creating and preparing data centers and the hosts, hosts and virtual machines they contain. And prepare cloud tasks and connect them to virtual machines, and determine the start time of the cloud simulation and the end time of the simulation, all of these operations using common, slips, and java, one of the most important results of this study is the presence of different information to measure capabilities with tasks and cases and the time and end of the simulation, and changing the number of hosts and displaying these experiments in the cloud before uploading them to the real world, which reduces energy consumption and finding solutions that leads to increased data efficiency. One of the most important recommendations of the study is to focus on developing work on Data centers and linking them with artificial intelligence and deep learning techniques, and benefiting from data mining and forecasting tools.

Keywords: *Cloud SIM, cloud computing, cloud infrastructure, platform as services, platform as applications, host, data center, middleware, virtual machines.*

introduction:

The use of modern information technologies has become a necessity, for reasons including the continued high storage costs, the difficulty of retrieving data, the number of backup copies, and effective control in controlling the costs of hardware, software, etc. Therefore, cloud computing focuses on providing a reliable, secure, fault-tolerant, sustainable, and scalable infrastructure to host Internet-based application services and these applications have a wide configuration in different deployment requirements.

Capture One: Methodology framework:

Study problem:

Experiments in the real environment or real reality are very difficult and expensive and therefore require extracting unexpected reports during the implementation stage. Therefore, they are difficult to solve and require an expensive cost to perform the operations again and correct what is required.

There is a very high power consumption, which affects dynamic provisioning, multi-tenancy, server utilization and data center efficiency.

Importance of the study:

- Contributing to the attempt to identify cloud computing, the near and long-term future of this technology, and the problems facing its applications, especially in developing countries.
- The reliance of a large number of global institutions on cloud computing services.
- Possibility of expansion and development in response to changing application requirements.
- Build and test new technologies to improve services.
- Ease of evaluating the researchers' usage method before actual use and comparing the results in different conditions compared to the real cloud environment.
- Adjust input parameters.

Study objectives:

- 1-Building a new framework for modeling and simulation of infrastructure and cloud services.
- 2- Leverage appropriate current simulation tool technologies and identify an approach that works effectively to simulate and model cloud infrastructure and services and reduce overall server energy consumption and data center efficiency.
- 3- Conduct preliminary experiments using technical simulation tools and show the final image in a scenario before using it in the real world.
- 4-Compare the results with the real cloud environment and test new techniques to improve services.

Study hypotheses and suggestions:

- 1-Instead of storing software applications and data locally on a personal computer (IA as, SaaS, Peas, for example).
- 2-In this study, we propose a new generalized and scalable simulation framework that enables the modeling, simulation and experimentation of emerging computing infrastructures and management services.

Capture Tow: Theoretical framework:

The electronic cloud is the main trend currently, and it is a real trend in various fields in the form of software and information technology, and combining this data in one platform that is saved on the Internet and provides needs upon request, and provides users' resources at any time in a dynamic way, which leads to lower costs and focus on basic tasks. Providing services in all fields.

Cloud computing provides IT infrastructure and applications as services to end users under a usage-based payment model, and virtual services can be leveraged based on time-varying service requirements.¹

There are difficulties in provisioning, configuring and deploying the performance of cloud provisioning policies and the load of

application operations, and managing repeatable resources under different system and user configurations and requirements that are difficult to achieve. To overcome these challenges, we propose using the Clouds tool, which is an extensible simulation toolkit that allows modeling the system and behavior of the system components that It includes data centers, virtual devices, and resource provisioning policies. This tool displays custom interfaces for implementing policies and service provisioning techniques to reduce virtual machines within the cloud overlapping networks. It works to implement general application techniques that can be easily expanded with limited effort, and the ability to easily reproduce results and ensure accuracy and visualization. In virtual reality before uploading it to real reality.

Clouds enables greater focus on innovation and business value creation.

Cloud SIM:

²It is a new scalable simulation framework that allows modeling, simulation and experimentation of emerging cloud computing infrastructures and application services.

It is a stand-alone platform developed by a laboratory at the University of Melbourne to work on simulating and experimenting³ on seamless infrastructure design. It was built on top of the grid computing framework that was developed by the same laboratory.

GRID

This tool offers great advantages to customers and service providers, as it allows them to choose their services in a controlled environment⁴ at no cost, verify performance before deploying on the real cloud, and improve the cost of accessing resources while improving profits. Without these tools, the evaluation of customers and providers would be inaccurate and subject to trial and error. Which leads to ineffective service performance and reduced revenue generation, the CloudSIM tool helps researchers and

developers in the industry to test the performance of an advanced application service in a suitable and easy-to-set-up environment.

The advantages of using CloudSIM for initial performance testing are: 1-2

Time efficiency (it takes less time and effort to bring work to the cloud and applications)

Flexibility.⁵ (the ability for developers to easily model and test the performance of their applications and services in heterogeneous environments.

[Microsoft Azure, Amazon EC2]⁶

1-Support unified cloud environment simulation.

2-Support simulating network communications between components of the simulated system.

3- A cloud platform that includes all services.

4-Independent and shared virtual services hosted on the data center node.

5- Support and simulate cloud on a large scale (computing environments, including data centers).

The cloud platform provides services on a subscription basis in a pay-as-you-go model to cloud customers, and therefore cloud infrastructure modeling and simulation tools must be available⁷ to support economic entities such as cloud brokers and cloud exchanges to enable real-time trading of services between customers and providers, among these The available simulations are the final visualization that provides support for managing economically driven resources and simulating application scheduling. We used this tool as a main element in this study in order to achieve the cloud goals of providing virtual resources for incoming user requests, application scheduling, resource discovery, and negotiations between the cloud and cloud federation in order to support and accelerate applications. Cloud services are a necessity

and the appropriate software tool is designed to assist and develop researchers and developers.

The benefit of CloudSIM lies in the dynamic provisioning of application services.⁸ In a hybrid cloud environment, researchers and developers have found that this tool fulfills their demands for cloud resource provisioning and energy-efficient management of data center resources.

CloudSIM allows the development of best practices and processes in all critical aspects related to cloud computing and is able to test failure and recovery mechanisms.

CloudSIM provides⁹ virtualization engine to help create and manage multiple, independent, and coordinated virtual services on data center nodes and flexibly switch between time sharing and space sharing when allocating processing cores to virtual services. [

¹⁰**Benefits of Cloudsim Tools:**

Cloud market modeling.

Network behavior modeling.

Cloud federation modeling.

Modeling the cloud computing environment.

Modeling virtual machine allocation.

Dynamic workload applications are supported.

Supports GREEN IT policies.

Speed up application execution time.

Cloud SIM features the following:

- 1- Flexibility (adjust configuration).
- 2- Generate cloud parameters.
- 3- Save and easy access for all users.
- 4- Its lack of dependence on the system's website.
- 5- Design and develop applications at low costs.
- 6- Evaluating the effectiveness of strategies in different scenarios
- 7- There are basic categories that build on Clouds
- 8- Creates tasks in the cloudlet environment.

¹¹The data center in which virtual network resources are provided for processing and querying virtual machine information. Data Center

It hides the management of virtual machines such as creating, submitting tasks, and destroying virtual machines. Data Center Broker

Extends the parameter allocation strategy from machine to virtual machines, and one host can correspond to multiple virtual machines. Broker.

A virtual machine running on the host to share resources with other virtual machines. VirtualMachine.¹²

It means the scheduling strategy for virtual machines and works to manage execution tasks and implement task interfaces.VM Scheduler

Provides a description of the virtual machine.VM Characteristics

A virtual machine monitoring policy that describes the strategy for sharing resources for multiple virtual machines on the same host.VM M Allocation Policy.

Implement and assign data center hosts to VM Provisional virtual machines

Basic model of cloud simulator:

The electronic cloud consists of various components such as server, data center, virtual machines, users, adapters, and varying capabilities, and the simulation tool uses a set of operations such as scheduling, virtual machine migration, data and resource management, and security.

The simulator works in three stages:

First: The input is presented as a task or resource, and then the required operations are performed.

Second: Obtaining the result of the technology analysis.

Each simulator contains four components:

1- Application layer: allows users to send requests and responses.

- 2- The cloud virtualization layer that virtualizes cloud resources.
- 3- The cloud resource layer that includes hardware components such as memory, processor, and storage.
- 4 - Cloud simulation layer that provides libraries for simulation management.

Cloud Infrastructure

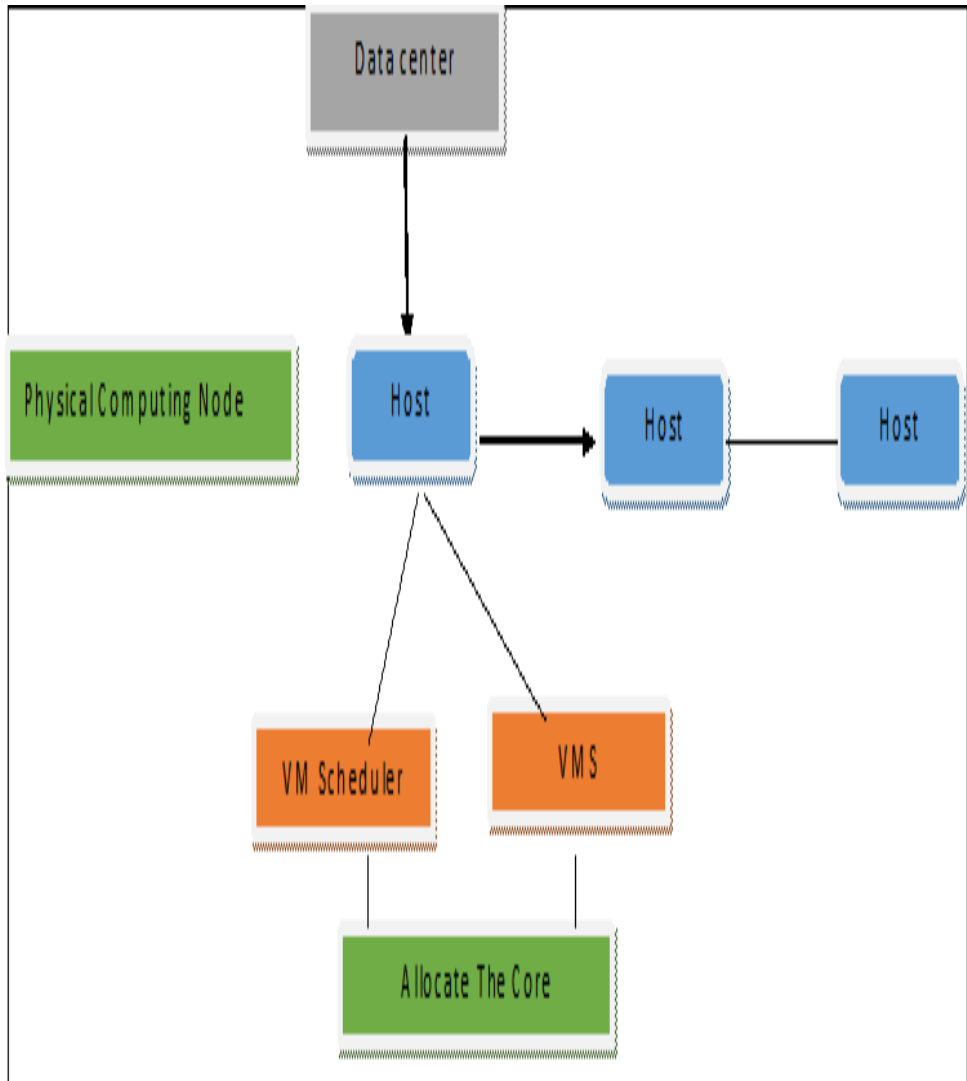


Figure No. (1) shows the components of the cloud

Capture Three: Methodology:

Cloudsim is one of the cloud simulation tools that has the following specifications:

The experiment was conducted on various equal and different parameter parameters (Time, Maps).

- The cloud was simulated in Sudan at the Virtual University and its branches, and it has a network within cities in 3 cities and a point of presence in 30 centers.
- Coding was done to model the data center with two servers. The number of VM is equal to the number of cities i.e. 3. However, the data center has enough RAM, bandwidth and storage specifications to accommodate data from 30 cores, the number of servers, RAM, bandwidth and storage specifications can be increased as per the demand.
- Tasks are fetched as small cloudlets from thin clients, so a minimum configuration of cloudlet length and file size is assumed.
- Simulation was performed to accommodate cloudlets applications from a maximum of 110 cities/centers, and VM image size, VM RAM, VM MIPS, VM bandwidth and cloud length parameters were changed accordingly.
- The above-mentioned differences in two virtual machine provisioning policies: shared-time and shared-space are studied.
- The effect of the above parameter variations on the processing cost and cloud completion time was measured.

Main activities of the cloud simulation tool:

Activity	Description of the activity
The definition	describes the process in detail to understand the cloud environment.
Accurate	identification highlights the factor that affects performance and cost.
Operations	supports different configurations to represent real-world conditions.
The analysis	is able to evaluate the diverse requirements of cloud customers.
Scale	allows researchers to run algorithms at different levels to validate the technique.
Confirm	the use or modification of technical reports in a scenario before using them in the real world.

A table showing the main activities of the simulation tool

The applied descriptive analytical approach from the CLOUDSIM simulation tool was used, which is to enter data into the data center simulator, and then extract reports that show the allocation of shared space and the allocation of shared time to the processing core to the virtual services and resources available in the data center.

Mechanism of action:

We have a Data Center database that contains hosting and a number of virtual machines. The cloud simulation tool took several steps to operate the cloud and display reports before uploading them to the real world, which are:

The first step:

Initialize the Cloud Tool before creating any object

// First step: Initialize the Clouds package. It should be called

// before creating any entities.

intnum_user = 1; // number of grid users

Calendar = Calendar.getInstance();

booleantrace_flag = false; // mean trace events

// Initialize the CloudSim library

CloudSim.init(num_user, calendar, trace flag);

The second step:

Creating a data center, which requires initializing all objects that build on the data center

// Second step: Create Datacenters

//Datacenters are the resource providers in

CloudSim. We need at list one of them to run a CloudSim simulation

@SuppressWarnings("unused")

Datacenter datacenter0 = create

Datacenter("Datacenter_0");

@SuppressWarnings("unused")

Datacenter datacenter1 = create

Datacenter("Datacenter_1");

The third step:

Create objects that build on the data center (host)

//Third step: Create Broker

Datacenter Broker = create Broker ();

intbrokerId = broker. get ID ();

The fourth step:

Creating and configuring virtual machines

//VM Parameters

```
long size = 10000; //image size (MB)
in ram = 512; //vim memory (MB)
in maps =120000;
long bow = 1000;
intpesNumber = 1; //number of Cups
String vim = "Xin"; //VMM name
```

//Fourth step: Create VMs and Cloudlets and send them to broker

```
vmList = create(brokerId,20); //creating 20
vims
cloudlet List = create Cloudlet (broker
ID,12000); // creating 12000 cloudlets
```

```
broker.submitVmList(vmList);
broker. submitCloudletList (cloudlet List);
```

Step 5:

Create cloud tasks

// Fifth step: Starts the simulation

```
CloudSim.startSimulation();
// Final step: Print results when simulation is
over
List<Cloudlet>new List = broker.
getCloudletReceivedList();
CloudSim.stopSimulation();
printCloudletList (new List);
Log.println("CloudSimExample6
finished!");
}
catch (Exception e)
```



```
{
    e. printStackTrace();
    Log.println("The simulation has been
terminated due to an unexpected error");
    private static Datacenter create Datacenter (String name) {
        // Here are the steps needed to create a Power
Datacenter:
        // 1. We need to create a list to store one or more
        // Machines
        List<Host>host List = new Array List<Host>();
        // 2. A Machine contains one or more PEs or
CPUs/Cores. Therefore, should
        // create a list to store these PEs before creating
        // a Machine.
        List<Pe> peList1 = new Array List<Pe>();

        intuit = 120000;
        // 3. Create PEs and add these into the list.
        //for a quad-core machine, a list of 4 PEs is required:
        peList1.add (new Pe (0, new
PeProvisionerSimple(mips))); // need to store Pe id and MIPS
Rating
        peList1.add (new Pe (1, new
PeProvisionerSimple(mips)));
        peList1.add (new Pe (2, new
PeProvisionerSimple(mips)));
        peList1.add (new Pe (3, new
PeProvisionerSimple(mips)));
        //Another list, for a dual-core machine
        List<Pe> peList2 = new Array List<Pe> ();
        peList2.add (new Pe (0, new
PeProvisionerSimple(mips)));
```

```
peList2.add (new Pe (1, new  
PeProvisionerSimple(mips)));
```

//4. Create Hosts with its id and list of PEs and add them to the list of machines

```
inthostId=0;  
in ram = 512; //host memory (MB)  
long storage = 100000; //host storage  
intbw = 1000;  
hostList.add (  
    new Host (  
        hosted,  
        new RamProvisionerSimple(ram),  
        new BwProvisionerSimple(bw),  
        storage,  
        peList1,  
        new VmSchedulerTimeShared(peList1)  
    ); // This is our first machine  
    hosted++;  
    hostList.add (  
        new Host (  
            hosted,  
            new RamProvisionerSimple(ram),  
            new BwProvisionerSimple(bw),  
            storage,  
            peList2,  
            new VmSchedulerTimeShared(peList2)  
        )  
    ); // Second machine  
    //To create a host with a space-shared allocation  
policy for PEs to VMs:  
    //hostList.add(
```

Create a number of virtual machines and link cloud tasks with those machines

```
private static List<Vm>vmList;
    private static List<Vm>create (intuserId, intvms) {
        //Creates a container to store VMs. This list is passed
to the broker later
        LinkedList<Vm> list = new LinkedList<Vm> ();
        //create VMs
        Vm[] vm = new Vm[vms];
        for(inti=0;i<vms;i++){
            vm[i] = new Vm(i, userId, mips, pesNumber,
ram, bw, size, vmm, new CloudletSchedulerTimeShared ());
            //for creating a VM with a space shared
scheduling policy for cloudlets:
            //vm[i] = Vm(i, userId, mips, pesNumber, ram,
bw, size, priority, vmm, new CloudletSchedulerSpaceShared());
            list.add(vm[i]);
        }
        return list;
    }
    private static List<Cloudlet>createCloudlet(intuserId, int
cloudlets){
        // Creates a container to store Cloudlets
        LinkedList<Cloudlet> list = new
LinkedList<Cloudlet>();
        //cloudlet parameters
        long length = 1000;
        long fileSize = 500;
        long outputSize = 500;
        intpesNumber = 1;
        UtilizationModelutilizationModel = new
UtilizationModelFull();
        Cloudlet[] cloudlet = new Cloudlet[cloudlets];
        for(inti=0;i<cloudlets;i++){
```

```
cloudlet[i] = new Cloudlet(i, length,
pesNumber, fileSize, outputSize, utilization Model, utilization
Model, utilization Model);
// setting the owner of these Cloudlets
cloudlet[i].setUserId(userId);
list.add(cloudlet[i]);
return list;
```

Results:

Code outputs for the first step of the third step:

Starting Cloud Sim version 3.0

Datacenter_0 is starting...

Datacenter_1 is starting...

Broker is starting...

Entities started.

Code output for step four:

: Broker: Cloud Resource List received with 2 resource(s)

0.0: Broker: Trying to Create VM #0 in Datacenter_0

0.0: Broker: Trying to Create VM #1 in Datacenter_0

0.0: Broker: Trying to Create VM #2 in Datacenter_0

0.0: Broker: Trying to Create VM #3 in Datacenter_0

0.0: Broker: Trying to Create VM #4 in Datacenter_0

0.0: Broker: Trying to Create VM #5 in Datacenter_0

0.0: Broker: Trying to Create VM #6 in Datacenter_0

0.1: Broker: VM #0 has been created in Datacenter #2, Host #0

0.1: Broker: VM #1 has been created in Datacenter #2, Host #0

0.1: Broker: VM #2 has been created in Datacenter #2, Host #0

0.1: Broker: VM #3 has been created in Datacenter #2, Host #1

0.1: Broker: VM #4 has been created in Datacenter #2, Host #0

0.1: Broker: VM #5 has been created in Datacenter #2, Host #1

Outputs of the fifth and sixth steps:

Broker is shutting down...

Simulation: No more future events

CloudInformationService: Notify all CloudSim entities for shutting down.

Datacenter_0 is shutting down...

Datacenter_1 is shutting down...

Broker is shutting down...

Simulation completed.

Simulation completed.

tarting CloudSimExample6...

Initialising...

Simulation completed.

CloudSim finished

===== Out Put =====

Cloudlet ID	STATUS	Data center ID		VM ID		Time
Start Time	Finish Time					
4	SUCCESS	2	4	0.31	0.2	0.51
16	SUCCESS	2	4	0.31	0.2	0.51
28	SUCCESS	2	4	0.31	0.2	0.51
5	SUCCESS	2	5	0.31	0.2	0.51
17	SUCCESS	2	5	0.31	0.2	0.51
29	SUCCESS	2	5	0.31	0.2	0.51
6	SUCCESS	3	6	0.31	0.2	0.51
18	SUCCESS	3	6	0.31	0.2	0.51
30	SUCCESS	3	6	0.31	0.2	0.51
7	SUCCESS	3	7	0.31	0.2	0.51
19	SUCCESS	3	7	0.31	0.2	0.51
31	SUCCESS	3	7	0.31	0.2	0.51
8	SUCCESS	3	8	0.31	0.2	0.51
20	SUCCESS	3	8	0.31	0.2	0.51
32	SUCCESS	3	8	0.31	0.2	0.51
10	SUCCESS	3	10	0.31	0.2	0.51

22	SUCCESS	3	10	0.31	0.2	
0.51						
34	SUCCESS	3	10	0.31	0.2	
0.51						
9	SUCCESS	3	9	0.31	0.2	0.51
21	SUCCESS	3	9	0.31	0.2	0.51
33	SUCCESS	3	9	0.31	0.2	0.51
11	SUCCESS	3	11	0.31	0.2	
0.51						
23	SUCCESS	3	11	0.31	0.2	
0.51						
35	SUCCESS	3	11	0.31	0.2	
0.51						
0	SUCCESS	2	0	0.42	0.2	0.62
12	SUCCESS	2	0	0.42	0.2	0.62
24	SUCCESS	2	0	0.42	0.2	0.62
36	SUCCESS	2	0	0.42	0.2	0.62
1	SUCCESS	2	1	0.42	0.2	0.62
13	SUCCESS	2	1	0.42	0.2	0.62
25	SUCCESS	2	1	0.42	0.2	0.62
37	SUCCESS	2	1	0.42	0.2	0.62
2	SUCCESS	2	2	0.42	0.2	0.62
14	SUCCESS	2	2	0.42	0.2	0.62
26	SUCCESS	2	2	0.42	0.2	0.62
38	SUCCESS	2	2	0.42	0.2	0.62
3	SUCCESS	2	3	0.42	0.2	0.62
15	SUCCESS	2	3	0.42	0.2	0.62
27	SUCCESS	2	3	0.42	0.2	0.62
39	SUCCESS	2	3	0.42	0.2	0.62

Capture Four: Conclusions and results:

1-A model framework for simulating cloud architecture has been proposed.

2- There are differences in comparing information to measure capabilities depending on tasks, situations, start time, end time, and changing the number of hosts at the end of the given time.

3- Displaying initial experiments before uploading them to the actual reality, which leads to reduced energy consumption and efficiency of data centers by developing solutions before uploading them to the platform.

Recommendations:

1-Focusing on the efficiency of data centers and developing simulation tools to solve energy consumption problems

2-Connecting the CloudSim tool with artificial intelligence techniques and deep learning tools

3- Utilizing the CloudSim tool in data mining and making predictions and forecasts of events.

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The role of international environmental law in achieving Sustainable Development Goals

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SUMMARY

The environmental factor lays the foundation for the sustainable development goals. The 2030 agenda for Sustainable Development was adopted at the 70th session of United Nations General assembly in 2015. This is a 15-year plan in achieving areas of critical importance to humanity consisting of 17 goals. This consist of 169 quantitative and qualitative targets to be achieved nationally and internationally over the span of 15 years. International Environmental Law in the other hand is a branch of international law which concerns mainly in controlling pollution and depletion of natural resources with the framework of sustainable development. It covers areas such as population, climate change, biodiversity, toxic and hazardous substances, ozone depletion, sea and transboundary water pollution, conservation of marine resources, etc. The Research emphasises the importance of International Environmental Law in achieving the Sustainable Development Goals in 2030. Environmental law, establishes rights and duties of individuals, communities, and industries in the use of environmental resources, including the sets of mandatory quality standards, and assigns powers, responsibilities, and liabilities in respect of environmental management. Its main concern is to govern the relationship of man and his environment. Historically, what was originally labeled as natural resources laws are “use-oriented” or designed for the maximum exploitation and development of natural resources as compared to the new environmental legislation, which is “resource-oriented” or designed for the rational management and conservation of natural resources to prevent their depletion or degradation.

Keywords: *international environmental law, the Sustainable Development.*

Introduction:

During the 1970s, governments were exhorted to establish an effective legal and regulatory framework to enhance national capacities to respond to the challenges of sustainable development by adjusting or fundamentally reshaping the decision-making process relating to environment and development ⁽¹⁶²⁾. Among the several trends in the evolution of environmental law vis-à-vis sustainable development is: crystallization of environmental issues in constitutional and policy documents (e.g., right to a healthy environment; sustainable use of natural resources); more comprehensive coverage of environmental issues (e.g., biodiversity conservation; management of hazardous wastes); establishment of environmental standards (e.g., air, water and noise quality standards; maximum level of emission of air-borne pollutants); use of economic instruments (e.g., tax incentives, polluter-pays-principle, environment funds); recognition of international environmental norms (e.g., institutional arrangements to give effect to multilateral environmental agreements; financial obligations required by treaties; environmental impact assessment); effective coordination of environmental management (e.g., ministries responsible for the environment; inter-agency committees for cross-sectoral coordination); measures for effective environmental law implementation and enforcement (e.g., environmental law compliance guidelines; enforcement procedures) ⁽¹⁶³⁾.

¹⁶². Climate Change: The IPCC 1990 and 1992 Assessments. (2019). Retrieved 2021, from <https://www.unep.org/resources/report/climate-change-ipcc-1990-and-1992-assessments>.

¹⁶³. Desertification, land degradation and drought. (2016). Retrieved August 26, 2021, from <https://sustainabledevelopment.un.org/topics/desertlanddrought/decisions>.

In 1972 United Status Conference in Human Environment, paved the way in addressing most of the issues faced by governments regarding the environment. This is also known as the Stockholm conference and the main idea was to link environment and sustainable development. The conference shaped the way for the sustainable protection of the environment for the next 35 years.

The conference addressed the need to rectify the human behavior which depleted and degraded the natural resources. The conference is justiciable as it laid down laws which needs to be adhered between the signing countries regarding the future of the planet earth. Another conference was held in 1992, in Rio, Brazil which was named as the Earth Summit. The summit signed a document named 'Agenda 21' which concerned the protection of forests and environmental development.

In this connection, the transition of environmental law to a law to achieve sustainable development can best be made by infusing the main body of development with ecological principles. This calls for a re-examination of the property rights principle, banking operations, the tax code as well as by a sector-by sector examination of the laws governing agriculture, climate change, energy, transportation, manufacturing, etc.

By tailoring environmental law more closely to the patterns of human behavior, law administration and enforcement will be more efficient and environmental law will blend with other areas of law, thus strengthening respect for and effectiveness of the law to fulfill the SDG 2030 Agenda. As an examples, concentration in water as a resource is on availability and less on water pollution prevention, or on saving protected areas but not checking on soil erosion, or on protecting endangered species but not on biological diversity. Worse is the regulation of the same activity by many

government agencies like pollution from mining, pollution from industry and even coastal pollution¹⁶⁴.

The framework of protection of the environment can be clearly seen when combing through the SDGs such as; loss of genetic diversity in agriculture (SDG 02), protection of water related ecosystems (SDG 06), energy efficiency (SDG 07), waste management and unsustainable production patterns (SDG 12), climate change (SDG 13), marine pollution (SDG 14), wildlife crime (SDG 15), terrestrial ecosystem destruction and biodiversity depletion (SDG 15). An important SDGs indicator that discusses the environment is avoiding and reducing environmental degradation. It is like reducing the negative impact on the changes in the structure of land and forest areas that need to be restored. The International Organization's contribution to nature conservation by the International Union for Conservation of Nature (IUCN) defines nature conservation as a geographical space, dedicated and managed through law or other effective means, to achieve the long-term conservation of nature associated with ecosystem services and cultural values. The central management in conservation includes restoration and sustainable use.

Groundwater is being withdrawn for irrigation much faster than it can be recharged. The need to control groundwater pollution and its conservation is an intricate regulatory challenge. Most often, agriculture law entangles with pollution control and resource laws with tax measures and reform should be one which could lead to an integrated scheme aimed at sustainable economy and, ultimately, sustainable ecology or, rightly, the sustainable development goals. Perhaps, a simpler example would be health laws vis-à-vis climate change law. This would entail study of the laws on economics, food

¹⁶⁴. Environmental Rule of Law. (2016). Retrieved August 26, 2021, from <https://www.unep.org/explore-topics/environmental-rights-and-governance/what-wedo/promoting-environmental-rule-law>.

security, climate change, waste management, biodiversity conservation, energy, air and water pollution control, to mention a few, examining their consistency in promoting sustainability. Indeed, the use of environmental law to achieve the SDGs requires the use of all legal tools optimally⁽¹⁶⁵⁾.

Be that as it may, for national environmental legislation, effective implementation and enforcement remain as the most daunting challenges especially for developing countries. How the matter is resolved will largely determine the capacity of the legal arrangements to effectively contribute towards the realization of the objectives of sustainable development. For, in the final analysis, ineffective law may be worse than no law at all. As can be gleaned, attainment of the sustainable development goals require not only appropriate and adequate legal and institutional regimes for environmental management, but even more importantly, effective environmental law implementation and enforcement. There are mainly two concepts pertaining to the international environmental law and the SDGs.

First is that there is a mutual support in achieving the 2030 agenda with the international environmental law and the SDGs. This states the importance of adhering to the international environmental law in achieving the 2030 agenda. Another aspect is that SDGs could be taken as a guideline in developing international environmental law. This could be a blueprint for the legislatures and policy makers in filling the current gaps in the international environmental law⁽¹⁶⁶⁾. **The concept of international environmental law was**

¹⁶⁵. International Covenant on Civil and Political Rights. (2006). Retrieved 2021, from

<https://www.ohchr.org/Documents/ProfessionalInterest/ccpr.pdf>

¹⁶⁶. Knox, J. (2015). Human rights, environmental protection, and the sustainable development goals.

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further discussed with regard to the SDGs in the following conferences;

21st session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC is the primary international, intergovernmental forum for negotiating the global response to climate change)

Conference of the Parties to the Convention on Biological Diversity (CBD)- Member States' determination to conserve and sustainably use all sorts of ecosystems, biodiversity, and wildlife, and to promote ecosystems' resilience and disaster risk reduction.

Sendai Framework for Disaster Risk Reduction 2015-2030 Management of the environment, including prevention, mitigation of damage, and pollution and restoration of the quality of the environment, has demanded the development of various policies and programs that support environmental management in a development program. In this case, there should be no intervention from the policies of the authorities and political elites to destroy the environment. The implementation of issued policies must be in favor of the environment, if not in favor of environmental functions and the general public, exploitation of natural resources will only meet the needs of the economic market, regardless of environmental damage, this will adversely affect the quality of human life⁽¹⁶⁷⁾.

Conclusion

Sustainable development has gone a long way from a mere concept into a principle with normative value. As changes are made through legislation, sustainable development can help define the path

¹⁶⁷. Lang, W. (2017). *Treaties as a Source of International Environmental Law*. Retrieved August 26, 2021, from <https://www.eolss.net/Sample-Chapters/C14/E1-36-05.pdf>

toward increasing preservation of the dignity of nature and of the dignity of humanity within it⁽¹⁶⁸⁾.

The presence of the concept in the objectives of the SDGs is a concept developed by the countries in the Rio +20 Conference, which is a joint agreement between countries to realize environmentally friendly development. The objective of 11 SDGs in urban and community planning was agreed to making cities and settlements inclusive, ⁽¹⁶⁹⁾ safe, resilient, and sustainable, which by 2030 must achieve efficient management of natural resources. The purpose of the SDGs concept is to implement policy rules, both at the central and regional levels. This effort in the SDGs is also an interpretation and adaptation of international law in the Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration 1972). The principles declared in Stockholm became a relationship of agreements which from the beginning were developed into SDGs that support not only developing the environment but supporting the fulfilment of human rights in development⁽¹⁷⁰⁾.

¹⁶⁸. Piselli, D. (2018). The sustainable development goals and international Environmental Law:

Normative value and challenges for implementation. Retrieved August 26, 2021, from

<https://core.ac.uk/reader/80159809>

¹⁶⁹. Normative value and challenges for implementation. Retrieved August 26, 2021, from

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http://theicph.com/id_ID/id_ID/icph/sustainable-development-goals/ Sood, A., Liyanage, N. (2017). Global environmental flow information for the sustainable

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Le droit international à l'épreuve de la cybercriminalité

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L'encadrement du cyberspace y compris la gouvernance de l'internet, sont devenus un enjeu prioritaire pour l'ensemble des entités-étatiques. En effet, la multiplication des activités d'attaques dans l'espace numérique, a favorisé l'apparition d'un nouveau champ de confrontation entre Etats avec une volonté manifeste de participer à la nouvelle course aux cyber armements. À cela s'ajoute, l'utilisation croissante des TICs pour la commission d'infraction par des groupes criminels qui ciblent le plus souvent les infrastructures stratégiques ou d'importances vitales¹⁷¹.

Les enjeux liés à la cyber insécurité ignorent la notion de frontière et affectent notamment toutes les nations ce qui incitent les Etats à adopter des politiques et prennent des mesures normatives pour parer aux cybermenaces à la fois sur le plan national, régional et international.

Les impératifs de souveraineté nationale, aussi bien que ceux de défense et de sécurité internationale fondent pratiquement les piliers sur lesquels reposent les normes et les principes de paix et de sécurité dans toutes ses dimensions. Dans ce cadre, la problématique liée à la cybersécurité nécessite une appréhension large et inclusive basée sur une approche multipartite qui devrait exposer toutes les préoccupations des parties prenantes y compris celle de la société civile. Une coopération inter – Etatique s'avère donc indispensable.

Termes clés : Cybersécurité ; cyber espace ; gouvernance sécuritaire ; cybersécurité ; souveraineté numérique ; cyber armement ; cyber diplomatie.

¹⁷¹ Les cybers attaques ont ciblé principalement les systèmes d'informations des unités de défense et de sécurité, des services sociaux de base, ou ceux des institutions financières.

L'objectif de cet article est de :

Délimiter les concepts liés à la cybersécurité, cybercriminalité, et souveraineté numérique.

Présenter les modes et les formes d'attaques relatifs au monde numérique et au cyberspace, tout en évaluant le degré d'impact sur le développement et la croissance économique des pays.

Exposer les différentes réformes juridico – institutionnelles adoptées pour une meilleure cyberdéfense au profit d'une souveraineté numérique renforcée.

Dans ce contexte, comment le Maroc met-il en œuvre sa cyber protection ? Quels défis reste-t-il à relever pour le pays ? Les mesures de cyber défense répondent-elles aux défis de cette nouvelle ère de cyberattaque ?

Internet : Un espace virtuel à multiples enjeux

Plus d'un demi-siècle après la création d'Internet¹⁷², le monde d'aujourd'hui s'enchevêtre dans de multiples batailles à multiples faces. De tel conflit mondial à caractère, à la fois hybride, multi

¹⁷² Depuis quelques années, l'Internet, comme outil de communication et d'interaction entre les individus, les groupes et les organisations, ne cesse de prendre de l'ampleur dans toute société. Selon les résultats de « l'enquête sur l'accès et l'usage des TIC par les Ménages et les Individus au Maroc », plus de la moitié des ménages marocains (52,5%) est équipée d'un ordinateur et/ou d'une tablette, soit environ 3,8 millions de ménages. Tandis que la majorité des individus (94,1%) est équipée d'un téléphone mobile. Par ailleurs, il s'avère que 50,4% des foyers marocains ont accès à Internet à domicile via la technologie mobile (45,6% par téléphone ou modem) ou fixe (14,5% par ADSL). Les résultats de cette enquête semblent indiquer que le cyberspace est en passe de devenir un lieu aussi essentiel à la vie quotidienne et relationnelle des familles marocaines. Et plus de la moitié des internautes (56,7%) se connectent tous les jours, à partir de leur domicile (73,7%), pour une durée pouvant aller de 15 mn à plus de 4 heures, et que les types de contenu les plus utilisés sont les réseaux sociaux (84,4%) et les sites de messagerie instantanée (52,8%).

protéiforme et pluridimensionnel, déboussole la majorité des Etats qui n'arrivent plus à mettre en place une stratégie cohérente et percutante, pour une protection optimale de leurs souverainetés dans ses dimensions numériques.

L'intelligence artificielle, le Big Data, la biotechnologie, la robotique, la crypto-monnaie, autant de technologies et d'industries de pointe continuent de révolutionner les cinq continents. Entre hacking, trolling et fakes news, s'agit-il réellement d'une guerre de l'Information, d'une guerre numérique ou d'une cyberguerre ?

Ce chevauchement entre divers conflits touche à tous les domaines économique, financier, politique, social, culturel, sportif et militaire et s'opère sur tous les fronts. Mais en vain, le dénominateur commun à toutes ces guerres, c'est la TECH où chaque Etat à travers son intelligence et sa puissance artificielle tente à renforcer sa souveraineté numérique à travers une politique de cybersécurité et de cyber défense

Autant de risques s'avèrent donc tangible, voire imminent à l'usage d'Internet obligent à renforcer la souveraineté numérique dans l'urgence. La cybercriminalité, la manipulation des réseaux sociaux, la divulgation massive de données sensibles sur Internet, le développement de logiciels de sabotage et d'espionnage informatique en sont les meilleurs exemples de cyber menaces auxquels les Etats aussi bien que les particulier (individus et entreprises) sont exposées de manière constante.

Un vol de données, à la suite d'une ingérence informatique, ayant abouti à leur publication sur Internet, parfois alimentée en fausses informations, deviennent des opérations fréquemment utilisées aussi bien par des personnes physiques que par des Etats, dans le but de semer la confusion, discréditer un pays, une personnalité, un artiste, un sportif de haut niveau, une organisation, voire pour secouer tout un processus politique. Même les grandes puissances qui, pourtant, disposent d'une véritable cyber stratégie, ne se

limitant pas aux systèmes d'information, mais s'étendant à l'ensemble de la sphère informationnelle. D'autant plus que la numérisation des systèmes de production et leur interconnexion grandissante, les confrontant aux risques cyber, permet aux malfaiteurs numériques de dérober des données, de façon massive, voire d'anéantir des systèmes névralgiques d'Etats.

Aujourd'hui, le bornage entre les pays, les communautés cybercriminelles, les groupements d'activistes, les entreprises ou encore les individus n'est plus évident, surtout que les technologies de pointe deviennent à la portée du commun et non plus aux seules mains d'agences de renseignement. Le réseau des réseaux appartient désormais à toutes les personnes, physiques et morales, publiques et privées, lesquelles contribuent, chacune à sa manière à cette nouvelle forme de conflit, qualifié de Guerre Mondiale Numérique. In fine, il s'agit d'une compétition stratégique, loin d'être symbolique, entre Etats, répartis en deux principaux blocs mondiaux, laquelle concurrence est destinée à déstabiliser le camp adverse, en priorité, pour détenir le monopole spatial, maritime et terrestre, et donc s'imposer économiquement et commercialement.

La collecte de l'information à partir de sources ouvertes sert, dans une large mesure, pour un Etat (son Service de Renseignement) à prévenir des actions de propagande et de désinformation ou encore à traquer sur le web les traces de projets terroristes, d'espionnage ou de crimes transnationaux, commandités à l'encontre de la communauté internationale et contre l'Humanité. Ce qui permet aux renseignements d'accroître sa capacité d'anticipation, de détecter et de répondre correctement aux incidents de sécurité, impactant l'intégrité des systèmes d'information du pays. En effet, la phase de renseignements s'avère essentielle pour la prospective d'une attaque cyber, à travers le recoupement d'informations hétérogènes, pour mieux appréhender les risques et les menaces numériques.

Sur le plan Afrique, la plupart des pays, engloutis dans des crises politiques internes ou bien dans la refonte de leurs systèmes politiques, économiques et sociaux commencent, timidement, à se préparer pour faire face à ces différentes formes de guerres. Parallèlement, le Maroc¹⁷³, en tant que principal leader africain dans le numérique et le cyberspace, ne manque jamais à apporter continuellement son expertise à ses pays amis.

Bien que l'Union Africaine ait placé l'usage des technologies d'information et de communication et l'intégration des pays africains dans le cyberspace parmi ses Objectifs prioritaires de Développement Durable, un énorme travail, purement basique, reste à faire, surtout qu'entre janvier et août 2020, 28 millions de cyberattaques ont eu lieu en Afrique et que le coût de la cybercriminalité est estimé à 3,5 milliards d'euros.

L'organisation juridico – institutionnelle de l'écosystème cyber sécuritaire

L'ascension diplomatique et économique du Maroc, peut attiser de la malveillance de certaines entités ou Etats qui usent de stratagèmes digitaux pour nuire aux stratégies de résilience menées par le Royaume, et ainsi freiner son expansion. Les services publics ou privés ne sont donc pas à l'abri des cybermenaces et ont été plusieurs fois sujets de ces attaques. Dans un premier temps, la cyberdéfense représente un défi majeur pour la stabilité du pays à

¹⁷³ A cet égard, le Royaume a accueilli les 25 et 26 novembre 2021 la 10e édition des Assises de la Transformation digitale en Afrique, un événement grandiose, organisé conjointement entre l'université Mohammed VI Polytechnique et la Commission Nationale de contrôle de la protection des Données à Caractère Personnel et dont le thème retenu en dit tout : « Déployer une infrastructure résiliente, souveraine et durable pour encourager l'innovation africaine ».

l'ère de l'information. La nécessité de récolter et d'exploiter les renseignements plus vite que le pays concurrent est devenue primordiale, et d'autre part, cela pourrait représenter un réel danger pour la stabilité des Etats tant sur le volet militaire (défaillance au niveau des radars, des caméras de surveillance et les moyens de géolocalisation, ...) ainsi que sur le volet économique à travers la découverte de probables accords et partenariats à conclure avec des acteurs économiques étrangers et par conséquent d'éventuelles retombées financières (espionnage économique, ...).

Certes, l'ouverture du Maroc au digital par l'établissement de firmes multinationales dans différents domaines (Télécommunication, Informatique, Aéronautique, IT, Bancarisation...) a contribué au développement de son économie et à promouvoir le marché de l'emploi (indispensable pour minimiser le taux de chômage). Cependant, il l'a exposé à un plus grand risque de cyber attaque. De ce fait, le Maroc ne manque pas de procéder à la mise en œuvre de stratégie de défense sans faille. Quelles sont alors les stratégies de défense pour la protection des intérêts du Maroc ?

La DGSSI (la Direction Générale de la Sécurité des Systèmes d'Information) a pris un ensemble de mesures et de procédures à caractère stratégique, juridique, technique et de sensibilisation. De telle administration vise à mettre en place un environnement numérique fiable¹⁷⁴ afin de réussir la transition numérique au

¹⁷⁴ En 2021, le Maroc, selon un rapport officiel de la Direction Générale de la Sécurité des Systèmes d'Information, a avorté près de 400 cyberattaques visant des systèmes d'information d'administrations, d'organismes publics et d'infrastructures d'importance vitale. Ce qui démontre la robustesse du dispositif national de cybersécurité dans les domaines de la détection des intrusions, de la sécurité des échanges électroniques et de la cryptographie, caractérisée, notamment, par des activités de recherche académique, ayant abouti, entre autres, à la conception d'un appareil local de chiffage pour la protection des échanges de données, via différents systèmes de communication.

Maroc, ainsi que de consolider le niveau de confiance dans les services numériques.

La Direction générale de la sécurité des systèmes d'information a développé des programmes de cryptages au profit de certains départements gouvernementaux et des infrastructures vitales. Les responsables annoncent également la fabrication d'un appareil 100% marocain de cryptages pour la sécurité des communications au niveau national.

Il semble ainsi que les menaces sur le cyberspace sont devenues une réalité de tous les jours. Les attaques sont le plus souvent l'œuvre de quelques éléments hors la loi mais la plus grande crainte provient du risque potentiel que des organisations plus structurées, notamment terroristes, lancent des offensives sur des structures vitales. La dernière arrestation à Berkane montre que les menaces terroristes sur les réseaux et le Web sont plus que jamais d'actualité. Cela dit, le crime organisé semble également s'orienter vers des attaques électroniques.

A partir de 2003, le Maroc a commencé à se doter d'un corpus législatif dédié à la protection contre les cybermenaces, tout d'abord avec la loi 07-03 intégrant des infractions relatives aux systèmes de traitement automatisé de données définies dans la Convention de Budapest. En 2007 le pays se dote d'un cadre juridique portant sur la cryptographie, la signature électronique et la certification électronique avec la loi 53-05.

Le renforcement du cadre légal se poursuit en 2009 avec la loi 09-08 relative à la protection des personnes physiques à l'égard du traitement des données à caractère personnel. Inspirée des législations européenne – *ante RGPD* – et française, cette loi a notamment pour objectif d'accompagner et de faciliter les échanges de données avec l'Europe compte tenu du développement de l'externalisation des services au Maroc. Ces lois ont été complétées

depuis 2009 par un certain nombre de décrets¹⁷⁵ et d'arrêtés dont les plus récents traitent plus particulièrement sur la protection des systèmes d'information des infrastructures d'importance vitale.

En complément de ce cadre législatif, le Royaume s'est doté en 2012 d'une Stratégie nationale en matière de cybersécurité articulée autour de quatre axes. L'architecture de cybersécurité du pays met une fois de plus l'accent sur la protection des SI des organisations marocaines les plus sensibles (administrations, organismes publics et OIV). La création de la Directive Nationale de la Sécurité des Systèmes d'Information (DNSSI) en 2013 est l'un des produits de la Stratégie nationale. Elle décrit les mesures de sécurité organisationnelles et techniques qui doivent être appliquées par les organisations les plus sensibles.

Pour assurer la gouvernance étatique de la cybersécurité, plusieurs organisations ont été créées au cours des dix dernières années. Créée en 2013, la directive Nationale de la Sécurité des Systèmes d'Information (DNSSI). Cette dernière gère à son essor les mesures de protection et de sécurité dites organisationnelles et techniques devant être d'application par les organisations sensible aux menaces pouvant troubler la stabilité du pays. Dès lors, dans l'ambition de garantir la gouvernance étatique de la cybersécurité, une panoplie d'institutions ont vu le jour au cours de cette dernière décennie. Le Comité Stratégique de la Sécurité des Systèmes d'Information (CSSSI), certes créer avant la DNSSI, mais qui en découle.

¹⁷⁵ Décret n° 2-15-712 fixant le dispositif de protection des systèmes d'information sensibles des infrastructures d'importance vitale et arrêté n°3-44-18 fixant les critères d'homologation des prestataires d'audit privés des systèmes d'information sensibles des infrastructures d'importance vitale).

Ainsi, la définition des orientations stratégiques en matière de sécurité des systèmes d'information est de la responsabilité du Comité Stratégique de la Sécurité des Systèmes d'Information (CSSSI), créé en 2011 et présidé par le ministre chargé de l'Administration de la Défense Nationale. L'organisation annuelle de l'exercice de cybersécurité national « Cyber-Drill » ou des « rencontres de la DGSSI » font partie des initiatives mises en œuvre par cette organisation. Constituant une des directions de la DGSSI, le maCERT (Moroccan Computer Emergency Response Team) est quant à lui en charge de la veille, de la détection et de la réponse aux cyberattaques.

De multiples autres acteurs gravitent dans l'écosystème de la cybersécurité, et qui pourront être cités, à titre non limitatif, comme l'Agence Nationale de Réglementation des Télécommunications (ANRT) qui est chargée de la régulation et de la réglementation du secteur des télécommunications ; La Commission Nationale de contrôle de la protection des Données à caractère Personnel (CNDP) dont la responsabilité est de contrôler le respect de la législation en matière de protection des données personnelles et le Centre Marocain de Recherches Polytechniques et d'Innovation (CMRPI) qui porte la Campagne Nationale de Lutte Contre la Cybercriminalité

Outre la politique nationale, le Maroc a élaboré des partenariats avec des Etats tiers dans le but d'accroître sa protection et tirer profit du savoir-faire et du retour d'expérience. A titre d'exemple, en 2011, la Corée du Sud a participé au développement du MaCert. En 2013, la DGSSI et l'ANSSI ont procédé à la signature d'un accord de coopération ainsi que la ratification en 2018 par les représentants marocains, de la Convention de Budapest sur la cybercriminalité, qui dans son chapitre 3 stipule explicitement les protocoles de coopération internationale.

Au cours de cette même année, a eu lieu l'intégration du Royaume dans le projet de coopération Cybersud avec l'UE ainsi que d'autre pays méditerranéens dans un espoir commun de renforcer l'aptitude de lutte contre ce phénomène contraignant.

Les enjeux et les défis de la souveraineté numérique

Le Maroc depuis bien plus d'une décennie à procéder à la mise en place d'une stratégie nationale de cybersécurité, qui consiste à une recherche permanente d'un système d'information qui apportera une résistance plus aigüe aux attaques issus du cyberspace. L'objectif étant d'annihiler l'accessibilité et la disponibilité ainsi qu'à la confidentialité des données stockées que certains systèmes rendent accessible. L'objectif étant d'instaurer une sécurité des systèmes d'informations jugés pertinentes et favorisant une évolution vers une économie numérique fortement corrélée à l'Information et communication. Soucieux de son ambition de protection des marchés régionaux et internationaux, le Royaume du Maroc depuis 1999, a établi cinq stratégies¹⁷⁶ pour le numérique, en outre, il a acquis une Agence de Développement du Digital (ADD) en 2017. Les mesures adoptées par le Maroc pour protéger le cyberespace ont permis au Royaume de gagner 43 points et se

¹⁷⁶ Depuis 1999, le Maroc a publié cinq stratégies pour le numérique et s'est doté en 2017 d'une Agence de Développement du Digital (ADD), signe de son ambition sur le plan national mais également vis-à-vis des marchés régionaux et internationaux. Ces efforts ont porté leurs fruits puisque le nombre de marocains connectés à Internet est passé de 14% en 2008 à 58% en 2017. Le Maroc est devenu une des principales destinations d'externalisation des services IT pour les entreprises francophones. Ce secteur représente aujourd'hui plus de 3% du PIB du pays. Toutefois l'ouverture du Royaume au marché de l'IT accroît sa surface d'exposition aux menaces issues de l'environnement cyber alors que les exigences des entreprises internationales ne font que croître en matière de cybersécurité. Ainsi, le pays se situe au 34^{ème} rang mondial des pays ciblés par des cybermenaces.

classer 50ème à l'échelle mondiale selon l'Indice mondial de la cybersécurité, publié par l'Union internationale des Télécommunications.

Cette avancée se traduit par les efforts déployés par le Maroc en termes de renforcement de la cybersécurité au niveau national et l'engagement constant de l'administration de la Défense Nationale dans la création d'un environnement favorable pour faciliter l'accès aux services numériques et dématérialiser les services publics. La direction générale de la sécurité des systèmes d'information DGSSI a contribué considérablement aux travaux de la commission gouvernementale chargée de préparer la feuille de route de la transformation numérique pour la réforme de l'administration.

Le Maroc est de plus en plus la cible de tentatives d'attaques cybernétiques¹⁷⁷. Dans ce sens, la Direction générale de la sécurité des systèmes d'information (DGSSI) a réussi à contrer 577 cyberattaques en 2021. Parmi les menaces les plus répandues au Maroc, les ransomwares se présentent comme une forme d'attaque qui cible les données, et ce en dépit des efforts de la législation en matière des TIC. La DGSSI relevant des Forces Armées Royales (FAR) mène des opérations de défense visant principalement à minimiser les risques et défendre les infrastructures vitales ou

¹⁷⁷ 13,4 millions de cyber-attaques ont été détectées entre avril et juin 2020 au Maroc. C'est ce qui ressort du bulletin trimestriel de Kaspersky sur la cybersécurité dans le pays. L'enquête, réalisée à l'aide du réseau Kaspersky Security Network, fait ressortir trois tendances fortes, à savoir : l'ingénierie sociale, où le Maroc est à la 32e place mondiale, les menaces locales (48e) et le rôle des serveurs hébergés sur le territoire national (61e). De même, dans le rapport Global Cybersécurité Index (GCI) publié en 2021, le Maroc occupe la 50 -ème place mondiale sur 194 en tant que cible de cyberattaque.

Et, d'une manière générale, le rapport souligne que les attaques via les navigateurs constituent la principale méthode de propagation des programmes malveillants

sensibles face à des menaces étrangères et locales. Pour ce faire, les FAR adoptent plusieurs méthodes. Il y a tout d'abord le scan qui permet aux responsables de détecter à l'avance des failles qui présentent le risque d'être par la suite utilisées par des personnes malintentionnées ou des parties hostiles. Il est également question de tests de pénétration qui consistent à évaluer les capacités de défense et riposte face à des attaques cybernétiques.

Le cyberspace, est d'abord un enjeu de connectivité¹⁷⁸ et de développement économique, mais aussi de lutte contre la cybercriminalité. Les représentations du risque cyber ne sont pas uniformes entre les États. Elles dépendent du contexte géopolitique, des rapports de forces régionaux, du niveau de développement de l'économie numérique, des capacités de cyberdéfense, et de la culture stratégique. Les déséquilibres dans la maîtrise des technologies, des infrastructures, des flux de données, des capacités d'action dans l'espace numérique façonnent les représentations.

Le cyberspace en plus de ces failles structurelles, est victime de méconnaissance par les acteurs cibles, de même la dimension humaine se trouve aussi face à ce défi dû à la complexité de la réglementation numérique. Le Maroc veut mieux protéger ses données sensibles en interdisant leur stockage sur des serveurs à l'étranger. Depuis quelques années le Maroc place l'économie

¹⁷⁸ Les efforts continus du Maroc n'ont pas fait défaut et ont porté leurs fruits du fait, que le nombre de la population connecté connaît une augmentation majeure de 14% en 2008 à 58% en 2017 et à 84,1% en 2020 comparé à ses voisins terrestres, ce qui rend le Royaume une des principales destinations d'externalisation des services IT pour les firmes internationales. Important de souligner que ce secteur représente actuellement plus de 3% du PIB de l'Etat chérifien, et ambitionne d'atteindre 11%, et la création de 125000 postes. En revanche, l'ouverture au marché de l'IT augmente considérablement les menaces dans un contexte économique qui rend les entreprises internationales de plus en plus exigeantes en la matière. Les événements sanitaires passés ont exhibé les menaces et les problèmes du net.

numérique au cœur de enjeux de développement et cela passe naturelle à une non dépendance envers les autres pays, plus avancés dans la matière. Pour le gouvernement, la souveraineté numérique marocaine doit être considérée comme une priorité compte tenu des développements dans ce domaine et de l'utilisation croissante des technologies numériques dans la vie quotidienne.

Dans le cadre de la promotion de cette souveraineté, le Royaume a non seulement adhéré à plusieurs conventions internationales en la matière, mais est également en train de finaliser un cadre juridique pour la « confiance numérique ». Plusieurs lois ont déjà été adoptées et d'autres suivront bientôt. Cette politique numérique passe par la protection des infrastructures numériques dans les zones vitales. Ceci afin d'éviter que des données sensibles ne soient délocalisées ou stockées en dehors du territoire national.

A cet égard, la Direction générale de la sécurité des systèmes d'information, à travers le Centre de vigilance, de surveillance et de réponse aux cyberattaques, surveille, détecte et répond aux cyberattaques en conséquence. Il s'agit de cyberattaques susceptibles de compromettre la sécurité des systèmes d'information gouvernementaux. Si nécessaire, il coordonne la réponse à ces événements en émettant des avertissements et des avis et en traitant les incidents.

Les actes de cyberattaques, en portant atteinte aux intérêts économiques et stratégiques nationaux, sont un facteur de rivalités entre Etats en ce qui concerne le pouvoir économique dans une zone stratégique. Cependant, ces rivalités s'inscrivent dans une logique de concurrence internationale et d'affirmation de puissance dans un contexte de politique et économique intérieure. Outre la transformation numérique pouvant offrir de meilleures perspectives géopolitiques, les menaces et le passage à l'acte de ceux-ci peuvent s'avérer un facteur destructeur pour les entités économiques marocaines. Les avancées économiques du Maroc ainsi que ses

performances financières sur la sphère internationale font du Royaume un lieu propice aux cyberattaques. L'impact économique de ce genre d'assaut numérique sur le Royaume est difficile à évaluer car les statistiques sur ce fléau font clairement défaut, dû à la banalisation de la problématique jusqu'alors. Toutefois, sur une échelle internationale, l'impact économique a été évalué à 1% du PIB mondial. Cependant, il est utile de souligner l'impact de l'ouverture économique du Maroc sur la sphère internationale, de même, les firmes multinationales sis au Maroc victimes de cyberattaques, qui ne sera pas des moindres.

Le Maroc de par sa géographie stratégique ambitionne le pays à devenir le premier hub numérique en Afrique francophone et le deuxième sur le continent. Une bonne gouvernance en cybersécurité peut devenir une arme numérique dont l'Etat peut s'en doter pour la pérennité de ses intérêts nationaux. Conscient des menaces numériques liées à sa vision révolutionnaire, le Maroc se doit de mesurer les enjeux géopolitiques de la cybersécurité pour garantir son expansion en Afrique et à travers le monde grâce à sa stratégie qui trouve ses fondements dans l'Intelligence Economique.

Les principaux obstacles liés aux cyber défenses

Le Royaume du Maroc poursuit aujourd'hui ses efforts législatifs en matière de cyber sécurité. Ainsi, une « loi cyber » est en cours de préparation et portera sur les dispositions auxquelles seront soumis les prestataires de services numériques. Par ailleurs, des travaux sont en cours entre l'Union européenne et le Maroc en vue de faire converger le droit marocain en matière de données personnelles vers les exigences portées par le RGPD.

Malgré les initiatives menées au cours des quinze dernières, le Maroc constitue encore aujourd'hui une cible privilégiée des cyberattaques à l'échelle mondiale. Ce niveau d'exposition aux

cybermenaces peut interroger sur la mise en œuvre opérationnelle du cadre réglementaire et des initiatives prises en matière de cybersécurité. Ainsi, à titre d'exemple les magistrats chargés de juger les affaires de cybercriminalité ne sont pas suffisamment sensibilisés à ce domaine du droit. D'autres facteurs explicatifs sont liés au manque de profils formés en cybersécurité sur le marché du travail marocain et à des difficultés à mettre en œuvre la **cybersécurité dans les entreprises**.

Les entreprises marocaines peinent en effet à recruter des experts en cybersécurité. Malgré l'ouverture de nouveaux cursus dédiés, l'offre de formations en cybersécurité dans les établissements supérieurs est encore jugée limitée par les acteurs du marché. Ceux-ci pointent également du doigt l'insuffisante culture de formation et de sensibilisation en interne des entreprises marocaines. Par ailleurs, les rares diplômés marocains en cybersécurité trouvent généralement des propositions d'emplois plus avantageuses à l'étranger, alimentant une fuite des cerveaux hors du pays. Dans le sens inverse, embaucher du personnel étranger et qualifié en cybersécurité s'avère très coûteux, empêchant ainsi de résorber la pénurie de profils dans ce secteur. Cette situation affecte naturellement le niveau de sensibilisation aux enjeux de cybersécurité dans les entreprises¹⁷⁹ marocaines.

¹⁷⁹ En guise d'exemple, seulement 38% des entreprises disposent d'une stratégie de cybersécurité. En outre, la cybersécurité est dans de nombreuses entreprises du pays une activité réalisée à temps partiel par des salariés dont le métier est la gestion de l'IT. Enfin, 62% des entreprises marocaines investissent moins d'un million de dirhams en cybersécurité[soit moins de 100 000 euros]. A titre de comparaison, d'après une étude menée par Hiscox auprès de 5400 entreprises américaines et européennes, leur budget moyen pour la cybersécurité en 2019 est de 1,28 million d'euros. Les petites entreprises marocaines sont sans surprise les plus vulnérables à ces menaces faute de sensibilisation à ces enjeux et de moyens financiers.

En dépit de la pénurie de ressources humaines formées à la cybersécurité et de l'insuffisante sensibilisation au sujet qui constituent autant de freins au développement d'une industrie de la cybersécurité marocaine, le secteur émerge tant par le développement d'acteurs nationaux que par l'arrivée d'entreprises étrangères qui investissent dans la cybersécurité au Maroc. Pour celles-ci, l'enjeu de l'investissement dans le pays est double : conquérir des parts de marché sur le marché marocain de la cybersécurité qui est en plein développement et disposer d'une plateforme régionale afin de proposer des services de cybersécurité dans le reste de l'Afrique – dont le marché représentera 2,3 milliards de dollars en 2020 -, à commencer par les pays francophones. Ce choix stratégique des entreprises¹⁸⁰ s'implantant au Maroc est d'ailleurs conforté par l'ambition du pays à devenir le premier hub numérique en Afrique francophone et le deuxième à l'échelle de l'Afrique.

¹⁸⁰ L'offre de cybersécurité au Maroc est marquée par une forte présence internationale, à titre non limitatif : Des entreprises américaines à l'instar de (Symantec, Fortinet, Palo Alto Networks) • des acteurs européens comme (Bitdefender, Kaspersky) ; Des compagnies françaises (Orange-Maroc, Orange-Cyberdéfense, Thales, Devoteam, Atos) Il existe, également, sur le marché marocain des intervenants de taille moyenne, comme : 6cure : éditeur français de solutions anti DDoS présent sur le marché et qui a permis aux entreprises et opérateurs marocains de créer des espaces numériques de confiance afin de garantir l'intégrité des moyens de communication ainsi que la sécurité et la disponibilité de leurs infrastructures IT. ; Systancia : expert français de la virtualisation, de la cybersécurité et de la confiance numérique, qui travaille avec un représentant et plusieurs intégrateurs ; La firme chypriote Secmentis dessert le Maroc sur une base ponctuelle depuis son siège social à Limassol. Elle est spécialisée dans les tests de pénétration, le renseignement sur les menaces et la défense proactive de l'infrastructure informatique.

Pour une meilleure lutte contre la cybercriminalité, il est opportun de comporter une qualification humaine¹⁸¹ apte à manier les techniques informatiques, codage et programmation en suivant les avancées du développement de l'information qui ne cesse de s'étendre au fur et mesure de la densité de la mondialisation. De ce fait, le Maroc a mis à disposition au sein de ces institutions académique plusieurs cursus de formation d'ingénieurs pour assurer la formation solide des responsables de la sécurité des systèmes d'information de cybersécurité.

Au sein de cette lutte, il est essentiel de sensibiliser¹⁸² les utilisateurs d'internet et assurer une pérennité formatrice des responsables de la sécurité des systèmes d'information.

En dépit des efforts juridiques du Maroc en matière de cyberdéfense, il est constaté qu'il réside encore des difficultés dans les dispositions. Les initiatives entreprises ne sont pas encore à la hauteur des défis auxquelles le Maroc fait face, en effet, ce dernier

¹⁸¹ L'Université Mohammed VI Polytechnique (UM6P) de Benguerir a procédé, en début 2021 à l'inauguration de son nouveau Data Center abritant le plus puissant "SuperCalculateur" d'Afrique (African Supercomputing Center).

Avec ce Data Center, installation de classe mondiale, assurant sécurité élevée, disponibilité maximale, haute flexibilité et connectivité optimale, l'UM6P, fidèle à son positionnement d'excellence à l'échelle nationale et continentale, se met au service de l'écosystème numérique national afin de contribuer à garantir la souveraineté digitale du Royaume et à développer de nouveaux services numériques 100% marocains

¹⁸² Dans ce sens, le Centre Marocain de Recherches Polytechniques et d'Innovation (CMRPI), sous l'égide du ministère de l'Industrie du commerce, de l'Investissement, et de l'Economie Numérique, a mis en œuvre une campagne de sensibilisation assez pertinente sur 4 années dites Campagne Nationale de Lutte Contre la Cybercriminalité (CNLCC 2014-2017).

est actuellement une cible¹⁸³ des cyberattaques à l'échelle mondiale.

Conclusion

L'enjeu de sécurisation du cyberspace marocain est identifié depuis plusieurs années par les autorités. Le pays s'est ainsi doté d'un cadre réglementaire solide et d'une organisation étatique crédible. Pour autant, le manque de profils spécialisés en cybersécurité sur le marché du travail grève en grande partie les nombreux efforts et initiatives réalisés pour structurer une industrie de la cybersécurité robuste et, plus largement, accroître le niveau de connaissances, de compétences et de sensibilisation sur le sujet au sein de la société marocaine. En misant sur la formation – tant académique qu'en interne des organisations – et en ayant une politique attractive envers les profils qualifiés, les entreprises marocaines et étrangères disposent donc d'une marge de manœuvre réaliste pour tirer le meilleur parti de l'écosystème juridique et étatique mis en place, ainsi que des opportunités économiques ouvertes par le Royaume aux échelles nationales, régionale et internationale.

Malgré tous les efforts réalisés par le Maroc pour la lutte contre la cybercriminalité et l'instauration de la confiance numérique, ils demeurent insuffisants, pour maîtriser le phénomène et impliquer toutes les composantes de la société dans cette guerre digitale contre les attaquants. Il est à constater que le secteur privé et le tissu économique marocain en général, surtout les petites et moyennes entreprises restent relativement en retard en matière de stratégie, de formation et de sensibilisation de cybersécurité à cause du coût

¹⁸³ Le Maroc est classé par une étude de Kaspersky au 34ème rang mondial des Etats menacés, de même, dans le Global Cybersécurité Index (GCI) 2021, le Maroc occupe la 50e place mondiale sur 194 pays.

assez onéreux que cela peut engendrer, ajouter à cela l'absence d'une culture de cybersécurité.

Pour contrer les effets néfastes des cyberattaques et établir une politique crédible et pertinente de la cyberdéfense, il est opportun de revoir continuellement les stratégies établies et les concorder avec le cadre réglementaire pour une meilleure cohérence. En effet, une cyberdéfense bâtit sur un cadre politique et économique solide sert de vecteur de prospérité économique.

Toute reprise économique basée sur les technologies nouvelles devrait alors être suivie d'un budget alloué à cette problématique de cyber sécurité. Les coûts liés à l'attaque sont plus importants que le budget nécessaire pour y faire face. De même, il convient d'étudier la probabilité des investissements publics. En outre, il convient d'investir dans les marchés de la cybersécurité (Ces marchés sont en croissance et créent des opportunités d'emploi).

Aussi, il est fortement recommandé d'investir dans la culture du cyberspace au sein des entreprises et auprès des agents économiques, tout en accompagnant l'Orientement des futurs étudiants à poursuivre des études en cybersécurité.

Compte tenu que l'Afrique fait drastiquement face aux défis protéiformes du cyberspace, particulièrement dans son espace subsaharien, il serait fort impératif de :

- créer un Institut Africain de cyberdéfense, dont le siège serait dans l'une des provinces du Sud, pouvant servir comme espace de formation et d'échange d'expertises entre différents pays africains, amis du Royaume, en matière de Renseignement, d'OSINT et de Gestion de l'Information au niveau de la toile numérique.
- mettre en place une Stratégie de cyberdéfense africaine, conduite par le Royaume du Maroc, en vue de sauvegarder la souveraineté numérique et de développer une résilience numérique des pays de ce continent.

– instituer une cyberpolice africaine, en tant qu’Armée numérique hautement qualifiée pour défendre la souveraineté des Etats africains.

– mener une campagne de sensibilisation de ses populations aux pratiques récurrentes et abondantes des fakenews, véhiculées par la facilité d’accès aux Smartphones et aux réseaux sociaux.

Enfin, pour contrer les effets néfastes des cyberattaques et établir une politique crédible et pertinente de la cyberdéfense, il est opportun de revoir continuellement les stratégies établies et les concorder avec le cadre réglementaire pour une meilleure cohérence. En effet, une cyberdéfense bâtit sur un cadre politique et économique solide sert de vecteur de prospérité économique.

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United Arab Emirates Legal System: Tradition, Modernization, and Cultural Sensitivity

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Abstract:

Rooted in the principles of Sharia law, the legal system in the UAE has been deeply influenced by Islamic jurisprudence and the teachings of the Quran. Sharia law serves as the foundation for personal matters, including family law, inheritance, and certain criminal offenses. It plays a significant role in shaping the moral fabric of society, emphasizing values such as compassion, fairness, and social responsibility.

In the UAE, Sharia courts operate alongside civil and criminal courts, offering individuals the option to resolve disputes through Islamic legal principles. Sharia judges interpret and apply Islamic law to cases, ensuring that the country's legal system remains aligned with the religious and cultural beliefs of its people. However, the application of Sharia law is not absolute and is often supplemented by modern legal codes to accommodate the needs of a diverse and cosmopolitan society.

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Keywords: *Legal System, Tradition, Modernization, Cultural Sensitivity*

Introduction:

The legal system of the United Arab Emirates (UAE) is a unique blend of traditional Islamic law, known as Sharia, and modern legal principles, reflecting the country's commitment to maintaining its cultural identity while adapting to the demands of a rapidly evolving society. As a civil law jurisdiction, the UAE's legal framework is shaped by a combination of statutes, regulations, and judicial precedents, with a strong emphasis on upholding justice, equality, and social order.

Historical Context and Sharia Law:

Rooted in the principles of Sharia law, the legal system in the UAE has been deeply influenced by Islamic jurisprudence and the teachings of the Quran. Sharia law serves as the foundation for personal matters, including family law, inheritance, and certain criminal offenses. It plays a significant role in shaping the moral fabric of society, emphasizing values such as compassion, fairness, and social responsibility.

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Modern Legal Framework and Judicial System:

The UAE has made significant strides in modernizing its legal system to meet the demands of a globalized world while preserving its cultural heritage. The country's legal framework is characterized

by a comprehensive set of federal and local laws that govern various aspects of civil, commercial, and criminal matters. The Federal Supreme Court serves as the highest judicial authority, ensuring uniformity and consistency in the interpretation and application of the law across all emirates.

Furthermore, the UAE has established specialized courts to handle specific areas of law, such as commercial disputes, labor grievances, and financial crimes. These specialized courts contribute to the efficient resolution of complex legal issues, fostering a business-friendly environment and promoting investor confidence in the country's legal infrastructure.

Ensuring Justice and Protection of Rights:

The UAE places significant emphasis on upholding the principles of justice, equality, and the protection of individual rights. The legal system provides avenues for individuals to seek redress and protection through the judiciary, ensuring that all citizens and residents have access to a fair and impartial legal process. Additionally, the UAE has enacted robust laws to safeguard the rights of workers, promote gender equality, and combat discrimination, reflecting its commitment to creating a society that values inclusivity and social justice.

Furthermore, the UAE has established various regulatory bodies and government agencies tasked with overseeing the implementation of laws and regulations, thereby fostering transparency and accountability within the legal system. These initiatives demonstrate the country's dedication to maintaining the rule of law and ensuring that its legal framework remains responsive to the evolving needs of its populace.

Harmonizing Tradition and Progress:

The UAE's legal system represents a delicate balance between tradition and progress, harmonizing the values of its cultural heritage with the demands of a modern, globalized society. While preserving the core principles of Sharia law, the country has embraced legal reforms and innovations to create a robust and efficient legal environment that fosters economic growth, social harmony, and cultural preservation.

In conclusion, the United Arab Emirates' legal system is a testament to the country's commitment to nurturing a just and inclusive society while accommodating the complexities of the modern world. By combining the principles of Sharia law with a modern legal framework, the UAE has succeeded in creating a legal system that not only upholds its cultural identity but also fosters an environment conducive to economic prosperity, social harmony, and the protection of individual rights.

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