Epistemological Challenges of Reviving the framing in Communication and Information Sciences in the New Digital Environment

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Abstract:

This paper aims to reveal the epistemological challenges of reviving the framing in communication and information sciences in the new digital environment. In recent years concern about the epistemological dimensions of this discipline in the digital era has widely emerged, and specifically the epistemological challenges that face teachers and students to connect curriculum reforms and renewing as a result of the increased scholarly interest in response to the technological developments and digitalization. Therefore, the different curricula should be revised and revived in order to update the information keeping up the curricula of other universities around the world.

Keywords : communication ;information sciences; reviving, digital environment; epistemology; challenges.

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1. INTRODUCTION

Media has undergone dramatic transformations in the new digital environment which posed many problems and new concepts were not known before. This presupposes the study of the resulting knowledge about this environment and the problems it presents, especially from the academic side information and communication sciences. This field of study has become methodologically, theoretically , practically and especially epistemologically confronted with many challenges that call for rethinking in the nature of the framing in this discipline, the need to refine it, detect and analyze the knowledge related to it, and track its progress according to the evolution of the digital environment, as well as closing the knowledge gaps that permeate it, enabling teachers, students and to update their knowledge and to keep pace with the achievements of other countries in the field of media, which is one of the most innovative and vital disciplines in the social and human sciences because it is linked to the means that knows a continuous dynamic that assumes the need to keep pace and instability in the knowledge of the past and to reach more contemporary knowledge in the new digital environment.

1.1 What is the digital environnement ?

This concept is based on digital electronic systems that are integrated and implemented for a global community. It is a place that enabled by technology and digital devices often transmitted over the internet or other means (Ngoaketi J Salawu, 2022)

The digital environment has not had one definition. It is defined according to the research context. In Martin and Quan-Haase (2013) study, an e-book is accepted as a digital environment. It is essential for e-books to include interactive features, as stated by Yang et al. (2021), in order to successfully deliver digital learning outcomes. It is not believed to be adequate to transfer merely the written content to electronic media. Instead, it is required to integrate the possibilities of digital tools, such as connecting to another website, adding video or sound, and so on. In more updated research, augmented reality (Salinas and Pulido, 2017), e-learning platforms (Milenkova and Manov, 2019), digital stories Seckin Kapucu and Yurtseven Avci (2020), and electronic concept maps (Kimber and Wyatt-Smith, 2006; Buitrago and Chiappe, 2019) are seen as "digital environments (Raisa Platonova, 2022)

1.2 Components of the digital environment

Digital environment is compound of the following components :

- The digital data
- New technologies of communication and information
- The tools used to reach data
- Research and devolopment in the digital space
- Artificial intelligence as the main element
- Blockchain of transporting data from one place to the other.
- Cloud computing
- Robotic technology

1.3 Epistemology of communication and information research

Epistemology is frequently linked to logic, or the study of the mind. Major logic and minor logic are the terms used here. Significant logic, like epistemology, explores knowledge, truth, and certainty. Minor logic, on the other hand, investigates the structure of thought and its premises, such as syllogisms. From a historical standpoint, the epistemological movement in Greece was driven by a group of shopists, or those who actively questioned everything. Shopis groups are also mostly to blame for the uncertainties. As a result, epistemology is linked to, and often synonymous with, critica, which is systematic understanding about standards and benchmarks for identifying genuine and false knowledge (Muya Syarol, 2022)

How do we know what we know? This is a question that philosophers have pondered and debated for thousands of years and is referred to as epistemology. In short, epistemologyA branch of philosophy that considers how people know what they know. is a branch of philosophy that considers how people know what they know. While this may be a new vocabulary word for you, we have all found ourselves in that deeply reflective state where we start to wonder what is real and what is not, and further, how we know what is real and what is not. There are two key questions that we will now consider to help us understand epistemology, and, as with most things philosophical, there are multiple answers to each question (JR)

Comunication from an epistemological perception is a multidisciplinary field, science communication has developed remarkably in recent years. It is now a distinct and exceedingly dynamic science that melds theoretical approaches with practical experience. Formerly well-established theoretical models now seem out of step with the social reality of the sciences, and the previously clear-cut delineations and interacting domains between cultural fields have blurred (Cheng Donghong, 2008)

John Fiske assumed that communication is amenable to study, but thatwe need a number of disciplinary approaches to be able to study it comprehensively (Fiske, 1990)

Epistemology is a central issue in media and communication research. More specifically, epistemology is the study of how the knowledge claimes articulated and justified on the following levels :
- The text and the discourse
- Communication practices
- Audience assessements of media and communication process
- News as particular forms of knowledge

In recent years epistemology has received increased scholarly interest in response of transformations within the information and communication ; digitalization, emerging forms of journalism, social networking platforms and the participation of the audience.

1.4 Common epistemological questions on C I in the digital space

In the following table I will discuss the comon questions about this discipline

Table 1. the epistemological questions of communication and information in the digital space

Questions	Discussions
Can knowledge be certain in this field of study ?	Knowledge is certain, we ca, discover absolute truthes about CI phenomenon by systematic thinking and scientific research
How does knowledge in communication and information arise ?	We get knowledge about communication and information discipline through our sensory perceptions , reasoning and impirical studies besides knowledge about this discipline is socially constructed
How contextual are communication and information in the digital space?	Communication and information are contextual both are related to social, cultural, religious and political …etc contexts
what is the relation between C I studies and digital environment ?	The digital environment is a part of the discipline studies.

1.5 Paradigm and theory in communication and information studies

- **Paradigms**

Paradigms are models that provide us with ways of knowing and ways of posing and answering questions related to communication phenomena. paradigms guide our thinking about theory. When communication scholars begin a research project, they've probably already made a commitment to a particular paradigm based on their personal interest, research area, and/or their training. Many communication scholars end up aligning their paradigmatic commitments with those of the mentors they have worked with during their graduate education. In any case, each paradigm comes with its own set of philosophical assumptions, that then influence the development of concepts, explanations, and principles. In order to understand paradigms, we must understand the philosophical assumptions that structure them (JR)

- **Theories**

In communication and information studies theory is held up as the zenith of research. Pavill defines theory as' a formal system of concepts and relationships trying thee concepts together, with the function of explaining, predicting, and allowing potential control over real world phenomena (Marina Krcmar, 2016)

Communication studies, given its interdisciplinary and transdisciplinary history and scope, has adapted many theories from related social sciences and humanities. We also have theories that we can call our own. Throughout this book, you will be exposed to key theories that have been adopted and employed by communication scholars in various contexts. First we will learn about philosophical concepts that guide how we think about the world around us.

1.6 The question of epistemological challenges

Renewing the framing in communication and communication sciences

The new digital and technological devolopments emerged the question of the epistemological problem of media studies as follows :

-The complexe structure in the digital space as I have mentioned before

-Lack of references to support scientific researches for both the teachers and the students.

- The weak framing of teachers in this field of study

- The high and speed devolopment in technologies especially the applications of artificial intelligence that are used in communication and information researches

- The multidisciplinary nature of the field put more challenges to understand the different phenomena related to the digital space, such as : psychology, sociology, linguistics…etc

- Ambiguity concerning the apropriate theories of communication and information sciences that can be applied in diferent researches

-The need to revise the traditional theories and paradigms of the field and apply them appropriatly to the digital space.

-The need for new methodologies to deal with the digital environment, concerning the appropriate methods and tools.

- The lack of technical competence for the researchers who need to involve themselves in the new tendences of the digital environment.

- No serious coordination between teachers and advisory body on the programs in the ministery of high education in Algeria

- The lack of coordination between the departments of communication and information sciences in Algeria, so that we can exchange ideas and experiences.

-Renewing of formation in this discipline has been on the long term although the high speed devolopments in the digital environment.

- The lack of using english language as a global language which opens high horizons for the students and teachers to get specific and varied information from websites, blogs, and the applications of the artificial intelligence.

-Lack of knowledge on the digital environment especially in arabic language which means little chance for better undetanding and getting knowledge

- New concepts and new phenomena have emerged, this found the question of how to deal with them ? how to define them ? how are they related to other concepts and contexts.

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- The total dépendance on the western research findings , methodology and knowledge to explain the digital phenomenon and all its components, therefore, there is no scientific rsearch identity in this field in Algeria, besides the lack of rsearch laboratories concerned with this new technological transformations.

-Ignorance of the specificity of our identity in studying phenomenons as a part of the digital environment.

- Attention to the subject of content creation in the digital environment

1.7 Explaining my challenges and experience in teaching (Modern research tendences in printin and electronic press module , university of Mouhamed Seddik Ben Yahia –Jijel-

According to my humble experience in teaching this module, I think that it is a good example to discuss this subject for the students of master 01, electronic press.

This module is based on a systematic curriculum adapted to the new tendences of research and to the new digital space as shown in the following elements :

- New categorizations of press such as : detective press, service press, advocacy press, citizen press.
- New tendences of news coverage.
- Integration of media (press, tv,radio, internet , image, sound…)
- Challenges of electronic pres such as : credibility, sampling, impact, methods, tools.
- International comparative press researchs
- Cultural and interdisciplinary studies
- Impact of globalization on press (industry, professionalism)
- New variables of agendq setting theory
- New contexts of gatekeeper theory
- Criticism of press researches
- Comparative studies of electronic press and quality
- Professionalism and press environment work

The program as I have mentioned is rich and varied, but I faced different challenges and obstacles to teach this module :

- Teaching this volume of knowledge in one semester is not enough for deep and good understunding.
- As a teacher I had not enough time for research and cover all the knowlege for the students.
- There is no good feedback between me and my students in many subjects, because of lack of reading and unsufficiant scientific background.
- Lack of control of some new digital techniques.
- I didn't know how to explain some new phenomena in the digital environment, Because of the lack of references

- I did't find in the curriculum the subject of artificial intelligence, which means the necessary renewing of this program in order to be updated with the new technologies and applications.
- The information and the curriculums must be updated to keep up the devoloments and transformations in the digital era.
- The teacher should update his information
- The teacher in communication and information needs the training in digitalization and the different techniques of artificial intelligence.

1.7 The example of artificial intelligence as a challenge in renewing the training in communication and information studies

Media, which is a tool for mass communication, has helped empower people with information. Journalists collect news and publish it for society. Journalists are divided into reporters and editors based on the nature of their work. People who spread information among others are called communicators. Several people work as a communicator while they are not considered professional journalists. In both the communication and journalism industries, artificial intelligence is now playing a vital role since it is the tech buzz of the times. In fact every medium uses AI in some ways to function Here are some areas where AI is being used in media and communication (Sharma, 2022)

- Social media and the digital promotion
- Brodcasting
- Newsrooms
- Entertainment
- Cinema industry
- Electronic press
- Advertisment
- Radio and tv production

AI should be included in the programs to achieve the following pupuses :

- Achieve more flexibility in learning
- Providing varied choices to the students
- Promote the different skills of both teachers and students
- Expanding the students knowledge
- Providing e-learning (distance education) around the word
- Better curriculum development
- Understand the future of AI in media field
- Learn about new kinds of journalism in the digital environment and their practices.
- AI can also offer advanced methods of collecting and analyzing data.
- AI offers also better understanding for mediatic texts.

2. CONCLUSION

To sum up, this research provides us with insightful conclusion :

- Communication and information discipline is dynamic field of study.

- Epistemology in this science has received an increased scholarly interst with the technological and digital transformations.

- There a lot of epistemological challenges within the communication and information sciences such us : The multidisciplinary nature of the field, the new applications of the artificial intelligence, lack of references…etc

- W gave an example of (Modern research tendances in printing and electronic press module) at university of Jijel a model of the epistemological challenges

- The curriculums in communication and information sciences must be updated, especially artificial intelligence which is the tech buzz of times.

- Communication and information sciences is very dynamic and vital field, therefore, the ministery of higher education should revive the curricula from one time to another according to technological and digital developments.

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