



## Reshaping Educational Interactions: The Theory of Symbolic Interactionism in the Digital Education Era

Babah Houria <sup>1\*</sup>, Makhoul Boumediene <sup>2</sup>

<sup>1</sup> University of Mohamed Boudiaf - M'Sila ( Algeria ), houria.babah@univ-msila.dz

<sup>2</sup> University of Mohamed Boudiaf - M'Sila ( Algeria ), boumediene.makhoul@univ- msila.dz  
Laboratory of Anthropological Studies and Social Issue LEAPS

Received: 09/10/2024

Accepted: 15/12/2024

Published: 31/12/2024

DOI: 10.53284/2120-011-004-002

### Abstract:

This study examines the impact of technological transformations on the interaction between teachers and students within digital environments, utilizing symbolic interactionism as its theoretical foundation. It investigates the shift in educational processes from traditional, face-to-face methods to digital formats, where interaction now relies on symbols such as text, emojis, and videos, rather than direct personal communication. The research offers a framework for understanding how meanings are constructed through digital interactions and underscores the influence of these symbolic exchanges on the dynamics of identity formation between teachers and students. Additionally, it explores the evolution of traditional educational roles, noting that teachers have increasingly assumed the position of guides, while students have gained greater autonomy in their learning processes. Furthermore, the study addresses the challenges inherent in digital interaction, including the misinterpretation of symbols, feelings of isolation, and the critical role of social integration. It also considers the issue of technological disparities and their potential impact on educational effectiveness. The study concludes by stressing the need to reassess methods of digital interaction and evaluation to ensure the provision of high-quality education.

**Keywords:** Symbolic Interactionism; Digital Learning Environment; Educational Interactions; Identity Formation; Technological Disparities.

---

\* Corresponding author



### 1.INTRODUCTION:

Over the past decade, the educational system has undergone profound transformations, primarily driven by rapid technological advancements, particularly in digital learning and distance education. These changes extend beyond merely providing electronic educational materials; they have reshaped the core interactions between teachers and students. Digital learning, now a crucial component of education—especially following the COVID-19 pandemic—necessitates a clear understanding of how this new environment impacts the educational process, the dynamics within virtual classrooms, and the overall nature of interactions in these digital spaces.

The topic of interaction between individuals and the tools that facilitate this interaction has long been a central concern for sociologists. They regard the study of interactions between individuals as fundamental to understanding how societies are organized and how they evolve. Social interactions form the building blocks of social systems and influence various aspects of social life, starting from the family structure to the broader social systems that make up society, eventually extending to societies as a whole.

This focus was central to the work of George Herbert Mead and later expanded by his student Herbert Blumer in their symbolic interactionism theory. This theory emphasizes the daily interactions between individuals and interprets the symbols used in these interactions. The core idea of the theory is that symbols do not carry fixed, universal meanings; rather, they are shaped through social interactions. Mead also considered that an individual's self is formed through social processes and is not static, constantly evolving over time.

Furthermore, proponents of this theory attributed the fluidity of society to the interactions of its members, as each interaction carries the potential to influence and alter the broader social structure.

In the context of education, symbolic interactionism provides a framework for understanding the interactions that occur within classrooms, whether they are traditional or virtual. By focusing on how both teachers and students use symbols, such as language, gestures, and communication tools, the theory enables us to analyze how these symbols contribute to the formation of educational identities within classrooms. These interactions between individuals also play a crucial role in ensuring the quality of the educational process.

In virtual contexts, digital symbols such as emojis, videos, and similar tools become essential means of communication. Applying symbolic interactionism theory helps us understand how these symbols can influence education and learning by providing insight into these dynamics, allowing educators to enhance educational interactions and their environments.

This gives rise to the need for a deeper understanding of how symbolic interactions affect learning and teaching in digital environments. To achieve this, a set of objectives has been outlined, which this article aims to address:



- Analyze the totality of symbolic interactions within the digital learning environment.
- Attempt to understand and interpret the changing roles of both the teacher and the student.
- Assess the effectiveness of education within the digital environment.

In digital learning environments, symbolic interactions play a pivotal role in shaping and interpreting meanings between the active self (students) and others (teachers). Interactive symbols in the digital environment, such as videos, written texts, illustrations, and more, are used as means of symbolic communication.

Live sessions and instant chats provide real-time synchronous interaction between the participants in the educational process, where symbols and meanings are exchanged in real-time. In contrast, forums and platforms enable asynchronous interaction, ensuring continuous participation.

These digital tools used for communication and learning can be considered extensions of ourselves, just as Marshall McLuhan described them with the phrase "extensions of man." These tools not only influence our ability to perform certain tasks but also reshape the way we communicate, interact, and think (Rodney & Jones and Christoph A, 2021, p. 03).

Despite the apparent benefits of interaction in digital environments, symbolic interactions can encounter numerous challenges, such as the misinterpretation of symbols. Moreover, the absence of face-to-face interaction can lead to feelings of alienation, and the digital divide between participants creates disparities in access to education.

Symbolic interactionism, in its analysis, relies on three simple premises. The first premise is that humans act toward things based on the meanings these things hold for them; these things include everything that a person can observe in their world. The second premise is that the meaning of these things is derived and arises from the social interaction that occurs between individuals and their peers. The third premise is that these meanings are handled and modified through an interpretative process used by the person in dealing with the things they encounter (Blumer, 1984, p. 02).

## **2. Analysis of Symbolic Interactions within the Digital Learning Environment:**

In the digital educational environment, educational interaction shifts from its traditional form, based on direct personal communication, to a new model that relies on digital media as the primary means of interaction. To understand these interactions within the digital context, we can turn to sociological analysis, which views education as a social system where communicative action is formed through symbols and social interaction.



### 2.1 Symbols and Their Role in Digital Interaction:

In traditional educational interaction, individuals rely on clear and direct symbols such as words, gestures, tone of voice, and facial expressions. These symbols provide a clear context for shared understanding and interpretation among participants in the interaction. However, with the transition to digital education, this context has changed, and digital symbols such as texts, icons, videos, and emojis have become the primary means of communication. These digital symbols are new tools for constructing meaning and require a shared social interpretation to be effective. For example, the use of emojis or the style of writing text messages may reflect certain emotions or educational attitudes, but these symbols are not necessarily transparent, as their interpretation can vary among individuals depending on their cultural backgrounds or experiences with technology. Here, we observe that symbolic interaction heavily relies on "shared interpretation," a central concept in symbolic interactionism.

The internet, through chat rooms, forums, and social media platforms, has introduced new interactive features, allowing individuals to experiment with new forms of interaction within virtual communities. They can remain in the background without participating in these interactions, add friends or ignore them, and create many social gatherings that did not exist before the development of digital media. In his famous essay *The Relationship Revolution* (2001), Michael Schrage argues that the real revolution brought by the internet is not a revolution of information, but rather a revolution of relationships (Rodney & Jones and Christoph A, 2021, pp. 11-12).

### 2.2 The Revolution Against Traditional Social Symbols:

Humans are "symbolic" beings as much as they are rational. They live by symbols, use them in various aspects of life, and establish their relationships with others through them. Symbols do not emerge from a vacuum; rather, they are linked to the psychology, behavior, perceptions, and impressions of individuals, as well as to the contexts of specific groups, nations, or civilizations. It is impossible to grasp the significance of things and relationships except through their usage and the meaning they hold in individuals' lives, and the collective imagination they represent. Symbols are also inseparable from other sets of elements: when connected to values, customs, and traditions, they form cultural heritage; when linked to rituals and beliefs, they constitute religious practices; and when associated with the political history of a state, its leaders, and significant events, they shape its political culture (Strategiecs, 2022).

In traditional educational environments, physical and material symbols (such as body language, eye contact, and in-person interaction) played a significant role in constructing interaction and understanding meanings. In the digital realm, these traditional symbols are disrupted, leading to challenges in meaning-making and interpretation.

This shift reflects a state of detachment from traditional social symbols, which may result in a lack of contextual cues necessary for understanding intentions and interactions between individuals. In digital interaction, text-based communication alone can sometimes be insufficient. Therefore, individuals rely on



supplementary symbols like emojis or multimedia tools (videos, voice recordings) to compensate for the absence of social cues.

### **2.3 Reshaping Educational Roles:**

The digital space provides a climate for reshaping the social roles of both teachers and students. In traditional environments, the teacher was the central authority of knowledge, and the relationship between teacher and student was governed by direct interaction. In digital environments, however, students have become more independent in their learning, as they can access educational resources online without relying solely on the teacher.

Technology has played a pivotal role in reshaping the educational process and altering the traditional roles of both teachers and students. In the traditional education system, the teacher was often the sole source of information and held dominance over the educational process, while students were passive recipients of knowledge. However, with the rise of technology in classrooms, this equation has changed drastically.

Students now take on a more active and dynamic role in their education, feeling greater responsibility for their learning process. Teachers are no longer mere transmitters of knowledge but focus on fostering independent study and research skills in students, encouraging them to use technological tools efficiently and effectively. This new approach promotes critical thinking in students and drives them toward self-reliance in their academic journey (Ayah, 2024).

From a symbolic interactionist perspective, this shift points to a reshaping of educational authority, where the teacher's role transitions from being the sole source of knowledge to becoming a guide and facilitator of the educational process. This change in roles requires the emergence of new symbolic interactions that reflect this transition, as both teachers and students depend on digital channels to communicate and build these forms of interaction.

### **2.4 Digital Interaction and Social Identity:**

Social identity has been defined as the part of an individual's self-concept that arises from their knowledge of belonging to a social group or groups, along with the emotional value and significance attached to that membership. Identifying with a group in the workplace, for instance, motivates individuals within that group to increase their mutual understanding of shared values and strengthen trust among members (Jinan, 2022).

Various communication technologies provide us with the ability to adopt different social identities. These differing identities require specific tools for their effective presentation and usage. The sociologist Erving Goffman used the term "dramaturgy" to describe how individuals present themselves to others in the digital environment, using various expressive media. This creates a kind of illusion for the recipient, allowing us to reveal certain expressions while concealing others (Rodney & Jones and Christoph A, 2021, pp. 11-12).

Symbolic interaction is closely linked to the formation of social identity in traditional educational spaces, where students and teachers shaped their identities through personal interaction and participation in the



social environment of the classroom. In digital education, however, identity is constructed through digital means that rely on texts and digital profiles.

It can be said that digital education enhances the concept of multiple or virtual identities. Students are now able to present themselves in ways that differ from their physical reality, as they can choose words or images that represent them in digital environments. This type of virtual identity may pave the way for more diverse interactions, but at the same time, it can lead to feelings of isolation or detachment from one's true identity.

### **2.5 Symbolic Interaction and Virtual Communities:**

It is commonly understood that a social group consists of individuals who share common values and a sense of belonging, living in the same geographical area, governed by shared norms and customs. They collectively agree on deterrent measures and social control rules that regulate the relationships among them. However, the internet has contributed to the formation of relationships that transcend physical and geographical boundaries, as well as face-to-face interaction. Users, especially those with shared interests, have formed what are called "virtual communities," a new form of human interaction (Al-Qarni, 2016, p. 10).

Just as students and teachers form social systems within the environment of a school or university, they also create what are known as "virtual communities" in digital educational environments. These are social groups formed through online interaction, enabling students to engage in discussions, exchange ideas, and build social relationships despite the absence of direct physical communication.

These virtual communities represent an expanded form of symbolic interaction, where digital symbols are exchanged to form social and intellectual relationships. Although these communities may seem virtual, they play a critical role in shaping the sense of belonging and social identity for both students and teachers.

### **3. The Sociological Interpretation of Changes in Teacher and Student Roles:**

Paulo Freire once considered that the role of the teacher in education had shifted from being the absolute source of information in what he called the "banking model," in which the student is seen as a passive recipient, to becoming a guide and partner in his dialogical model. In this model, the teacher and student are equal partners in the educational process. Previously, the teacher's role was summarized as the sole source of information, transmitting knowledge to the student without involving them in the learning process, while retaining authority and control over the educational process.

The student's role, in contrast, was reduced to that of an empty vessel to be filled with knowledge, without active participation, encouragement for critical thinking, or engagement as an active participant in their own learning (Freire, 1970, pp. 72-75).

With the widespread use of digital technology, which has reshaped the roles of both teacher and student in educational environments, education has undergone profound transformations. These role changes are not merely a result of technical advancements but are reflections of deeper shifts in the social and symbolic



structures governing educational relationships. These transformations rely on new symbolic interactions that redefine power, responsibility, and authority between the teacher and the student.

### **3.1 The Traditional Role of the Teacher: Authority and Centralization:**

In traditional classrooms, the teacher held a central position as the figure of authority and knowledge. The relationship between teacher and student was built on clear hierarchical foundations, where the teacher was viewed as the primary source of knowledge and the student as a recipient of that knowledge. Educational interaction relied heavily on physical and material presence, with the teacher playing the role of guide and overseer, ensuring the smooth progression of the educational process. Paulo Freire referred to this in his book *Pedagogy of the Oppressed*.

This relationship reflects a deeply rooted structural authority within educational institutions, where the teacher is granted the power and legitimacy to lead the classroom and control the distribution of knowledge. In this context, the student occupies a relatively subordinate position, depending on the teacher for guidance and learning. The interaction in this relationship is based on clear social symbols such as body language, tone of voice, and traditional indicators of authority.

### **3.2 The Evolving Role of the Teacher in the Digital Transformation Era:**

With the advent of digital education, the role of the teacher has changed significantly. The teacher is no longer the sole source of knowledge, as students can now easily access a wealth of information online. In this new context, the teacher's role has shifted from being the transmitter of knowledge to becoming a facilitator and guide. The teacher is now seen as someone who aids the learning process rather than monopolizing it.

In the digital age, teachers must have a good understanding of the various digital tools and technologies available to them. They need to be able to integrate technology into their teaching practices and utilize digital tools to enhance student learning.

Another important role for teachers in the digital era is to help students develop digital literacy skills. This includes the ability to find, evaluate, and effectively use digital information. Teachers must also guide students in understanding the implications of their digital actions and foster responsible online behavior (Jawad, 2023).

All these changes ensure a more horizontal interaction between teacher and student, with the relationship becoming less hierarchical and more interactive and collaborative.





### 3.3 The Role of the Student: From Passive Recipient to Independent Learner:

In traditional education, the student received knowledge in a relatively passive manner, with their primary task being to listen to the teacher and follow their instructions. Learning was viewed as a process where knowledge was transmitted from the teacher to the student, and all expectations regarding the student's role centered around responding to directions and consuming the information provided (Paulo Freire described the student as an "empty vessel" to be filled with knowledge).

With the advent of digital education, the role of the student has undergone a radical transformation, allowing students to become more independent and responsible for their own learning experience by accessing a wide range of knowledge sources online. Students can now select the resources they find suitable for their learning and manage their time and tasks with greater autonomy. George Siemens highlighted this shift, noting that learners in the digital age no longer rely solely on teachers or books as primary sources of knowledge. Instead, they have the ability to build connections between various information sources. Students now need to be able to adapt to and use technology effectively to access knowledge, with a key skill in modern education being the ability to know where to find information (*know-where*) (Siemens, 2004, pp. 1-2).

This transformation can be seen as a dismantling of the traditional power dynamics in the teacher-student relationship. Instead of complete reliance on the teacher, the student is now viewed as an active partner in the educational process. The relationship has shifted to a self-directed learning model, where the student plays a central role in organizing their learning and selecting the resources that suit them best.

### 3.4 Symbolic Interactions in the New Roles:

Interactions between teachers and students in digital environments rely on new symbols that reflect changes in roles. In traditional education, teachers used physical and psychological cues to control the classroom and manage discussions. In digital education, however, communication primarily takes place through educational platforms that rely on text and multimedia. These new symbols reshape the nature of interaction between teacher and student. Instead of the direct control the teacher exercised in traditional classrooms, interactions are now more open and dynamic. The teacher still guides and supervises, but students have greater freedom to engage with educational materials according to their individual needs.

From a symbolic interactionist perspective, these shifts indicate the emergence of flexible communication symbols. Educational interactions now rely on new signals, such as text messages, icons, or instant feedback provided by educational platforms. These digital symbols reduce the teacher's authority to dictate the direction of interaction and open the door for broader interaction between students and teachers.





### **3.5 Technology and Its Role in Changing Educational Roles:**

Technology is the primary driving force that has reshaped educational roles in digital environments. Digital tools such as online learning platforms, virtual forums, and educational applications provide new means for students and teachers to communicate and interact. Technology not only changes the tools used but also leads to a redistribution of authority within the educational process. It has transformed the way we learn, making education primarily dependent on building connections and networks. In the digital age, learning relies on the ability to create links between various sources of knowledge, whether these sources are informational or human (such as individuals or communities).

Technology is seen as a key element in the restructuring of education, acting as a catalyst for change that enables students to access knowledge more independently. It also provides teachers with new tools to guide students and offer personalized feedback in a more individualized manner. This shift makes educational roles more flexible, allowing teachers to tailor their teaching experiences to meet the specific needs of individual students.

### **3.6 Challenges and Opportunities in the New Roles:**

Despite the opportunities digital education offers for reshaping educational roles, there are notable challenges. Some teachers may struggle to adapt to the loss of the centralized authority they once held in traditional education. On the other hand, some students may feel overwhelmed by the increased independence and responsibility for managing their own learning experiences.

Nevertheless, these changes also bring new opportunities. Teachers can now focus more on guiding students and helping them develop self-directed learning skills rather than merely delivering information. For students, this environment offers the chance to cultivate critical thinking and problem-solving skills through the exploration of digital knowledge sources.

## **4. Evaluating Educational Effectiveness in the Digital Environment:**

With the widespread adoption of digital education as a key component of the educational process worldwide, it has become essential to assess the effectiveness of this new form of education. Digital education, which relies on technological tools and virtual interactions, reshapes the way knowledge is exchanged and social relationships are built within educational environments. In evaluating educational effectiveness, we can analyze the impact of technology on educational relationships, symbolic interactions, and the social norms that govern the learning process.

### **4.1 Symbolic Interaction and Its Impact on Educational Effectiveness:**

Symbolic interaction refers to a form of interaction between individuals within a specific societal system. This interaction manifests through a series of behaviors where one individual responds to the actions of another, resulting in a cycle of actions and reactions. These actions take on various symbolic meanings that require understanding and interpretation (Wutfa, 2024).



From the perspective of symbolic interactionism theory, educational effectiveness is heavily dependent on the quality of interactions between teachers and students. In traditional educational environments, interaction relies on physical and material symbols such as body language, gestures, eye contact, and tone of voice—tools that help foster shared understanding and build interaction. In the digital realm, these tools may become less clear or be replaced by digital symbols such as texts, emojis, and videos.

The main challenge here is the interpretation of these digital symbols, which may not be as transparent or uniformly understood as in direct personal communication. The interpretation of digital symbols is crucial to ensuring effective educational interaction. If teachers and students can develop a shared understanding and correctly interpret these symbols, educational effectiveness in the digital environment can be enhanced. Conversely, if there are gaps in interpretation or differences in understanding digital symbols, effectiveness may be negatively impacted.

### 4.2 Social Integration in Digital Environments:

Social integration plays a significant role in determining the effectiveness of digital education. In traditional classrooms, this integration is ensured through direct personal interactions that allow students to build strong social relationships with their peers and teachers. In digital environments, however, virtual communities are formed, relying on online communication to foster a sense of belonging and social interaction.

Social integration in digital environments presents a major challenge due to the absence of direct physical contact, especially within the broader context of online learning, particularly in multicultural educational settings. One factor influencing community building in digital environments is the recognition of cultural differences to avoid misunderstandings. It is important for participants—whether students or teachers—to be aware of the cultural differences between themselves and others, and to foster a shared culture characterized by positive interaction and collaboration.

Additionally, the sense of isolation that learners may experience in digital environments due to the lack of face-to-face interaction can hinder the educational process (Pennell, 2017, pp. 72-73). However, this can be mitigated through various digital communication tools such as forums, discussion platforms, and emails. Virtual communities provide a suitable environment for interaction and idea exchange, contributing to the creation of an effective educational setting when utilized properly. Nonetheless, if these communities fail to create a sense of belonging and collective engagement, students may experience social isolation, negatively affecting their educational experience and the overall effectiveness of the process.

### 4.3 Social Interaction Between Students and Teachers:

Social interaction between students and teachers is a crucial factor in achieving educational effectiveness. In digital education, these interactions take on a new form, as communication often occurs through text or video rather than face-to-face interaction. The success of these interactions depends on the ability of both students and teachers to use these tools effectively. Therese Indira Pennell, in her dissertation titled *Cross-cultural Online Learning in Technical Communication Courses: Aiming for Intercultural Competence*,



noted that students gave high evaluations to interactions with teachers, rating them as the most appreciated aspect of their educational experience (Pennell, 2017, pp. 66-67).

As a result, digital learning platforms strive to provide new tools, such as instant feedback, which enable teachers to communicate with students more quickly. However, the absence of physical interaction may weaken personal engagement, potentially impacting the quality of education. To maintain educational effectiveness in the digital environment, there is a need to rethink interaction methods to make them more dynamic and engaging, such as using live video sessions or encouraging interactive discussions in virtual classrooms.

#### **4.5 Technological Disparities and Their Impact on Educational Effectiveness:**

Technological disparities can significantly affect educational effectiveness in digital environments. Access to the appropriate technological tools, such as high-quality computers or high-speed internet, is a fundamental requirement for the success of the digital learning experience. This disparity is part of the broader issue of social inequality, which may be exacerbated in digital spaces.

For instance, students from less privileged socioeconomic backgrounds may struggle to keep up with lessons or access educational resources available online, leading to a decline in the effectiveness of their educational experience compared to their more fortunate peers. This technological divide poses a significant social challenge to digital education, necessitating measures to ensure fair and equal access for all students.

#### **4.6 Assessments and Examinations in Digital Environments:**

Assessments and examinations are an essential component of educational effectiveness, enabling teachers to measure students' understanding and progress. In the digital realm, the format of assessments and exams may change, as they are often delivered through online platforms. This type of assessment offers time flexibility and continuous evaluations rather than relying solely on final exams.

These changes may influence the effectiveness of education depending on the evaluation system used. Digital assessments that provide immediate feedback can be more effective in ensuring ongoing comprehension and improving performance. However, some students may find it difficult to adapt to the virtual nature of assessments, which could impact the overall effectiveness of their education.

In summary, the effectiveness of education in the digital environment depends on a complex set of social, technological, and interactive factors. Properly managing symbolic interaction, social integration, and the redistribution of authority can enhance the effectiveness of digital education. However, challenges such as technological disparities, the lack of physical interaction, and difficulties in adapting to digital assessment tools may negatively impact the effectiveness of the educational process.



## **5. CONCLUSION:**

In conclusion, this article underscores the critical role of digital interaction in transforming the educational process and redefining the roles of teachers and students within digital learning environments. As technological advancements continue to evolve, understanding the dynamics of symbolic interaction and its influence on meaning-making and identity formation in virtual classrooms is increasingly important. Although challenges such as the misinterpretation of digital symbols and feelings of isolation persist, fostering positive interactions and effective social integration can greatly enhance educational outcomes. Thus, it is imperative to continually refine digital interaction tools and develop innovative assessment strategies to ensure a comprehensive and impactful educational experience for all learners.

