

Technology transfer at the service of educational innovation in the field of advertising design.

(Innovative pedagogical approaches and practices)

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Abstract	Article info
<p><i>This article is based on a theoretical and empirical study of technology transfer and its effects on the learning of advertising design within the Institute of fine arts, according to a professional and innovative perspective which spreads over two key axes.</i></p> <p><i>The first one consists of studying higher education in the digital age through the attitudes of students, and questioning their ability self-adjust to new pedagogical approaches. As for the second one, it will be devoted to the study of the impact of new digital technologies on educational innovation and students' motivation through an empirical study of the workshops I have carried out in the Institute of Fine Arts in Nabeul.</i></p>	<p><i>Received</i> 20 January 2023</p> <p><i>Accepted</i> 26 May 2023</p> <p>Keyword:</p> <ul style="list-style-type: none">✓ internet✓ motivation✓ innovation✓ inspiration✓ valorization.

1. Introduction

Technology, strategies, formats and communication media, which change with technological progress, are constantly evolving in the professional field of advertising.

Therefore, the teaching of advertising design requires a new approach that focuses on the issue of creativity in accordance with the new digital technologies. It is a question of inventing a pedagogy that improves the student's sense of creativity in the student and allows him to develop advertising visuals that adapt to digital media formats such as websites, social networks, etc. Moreover, these types of media are essential in the field of advertising communication. So, the issue to be addressed turns out to be the following: does pedagogical renewal in the field of advertising design require technological innovation?

In order to answer this question, we will address the impacts of new digital technologies on teaching and their possible repercussions on learning at the higher level, knowing that we are in a constantly changing educational environment.

In this article, we will examine the integration of digital technology in higher education, as well as its effect on pedagogical innovation in relation to students' attitudes. We will also try to identify the necessary learning capacities as well as the factors that are capable of promoting responsible behavior on the part of the student. Next, we will study the role of the Internet in the quest for better accessibility to information and in the process of educational innovation.

However, is this global computer network a source of inspiration that improves the student's sense of creativity in the student or, on the contrary, is it rather a source of laziness?

2. The digital era and pedagogical innovation in higher education

2.1 The digital age and student attitudes

Since its creation in 1996, social media has managed to infiltrate half of the 7.7 billion people in the world. Social media platforms have nearly tripled their total user base over the past decade.

However, digital must be part of our pedagogical strategy and our teaching plan for subjects related to the field of advertising design, such as specific computer graphics, illustration and so-called "specialty" subjects. So, what attitude does the student show in relation to new information and communication technologies? How can we integrate contemporary pedagogical strategies by making good use of digital technologies?

According to Bandura, all humans have, to varying degrees, well-defined aptitudes. Indeed, through my professional experience in advertising design and in higher education, we observe some attitudes of students in relation to new technologies.

Firstly, it is about cultivating the ability to represent and interpret the environment through symbolic systems such as spoken and written languages. In the case of our pedagogical strategy, the language of computer graphics, as well as that of the web (which facilitates interaction and reaction between student and teacher in real time),

are added to the basic concept of teaching... However, the student must experiment to understand and learn, since computer graphics software and Internet tutorials are constantly evolving and the teacher is not the sole source of information. Thus, he must always be aware of new versions of software and more, he must be constantly trained.

Secondly, the student must be endowed with the ability to refer to the past and anticipate the future. In the university setting, with the integration of digital technology into the educational environment, the memories that students evoke and the aspirations they have from the Internet, with regard to their creative activities, are at the origin of the motivational dynamic. This brings out the best in the student and gives him added value to his educational journey, which must be positive.

Thirdly, it is necessary to improve the student's ability to observe other works through digital technology, in particular Templates and tutorials, and to draw conclusions. It is possible to learn by watching tutorials from professionals on social networks without having to do it yourself.

Observation is therefore an active gesture that can motivate the student to engage in activities that he deals with. This is how, being an important element in learning, provided you have a good command of technology, the internet helps the student enormously to develop his skills and especially his creative instinct in advertising design. For this reason, the role of the teacher is to direct their students to the links and sites that inspire them and add

constructive value to their educational journey.

Lastly, students are called upon to acquire the skill of self-regulation, that is to say, of controlling and possibly modifying their behavior according to the assessment that one makes of the situation in which one finds oneself with relation to the digital age. This notion is defined by F. Boudokhane (2006), as the possibility of mobilizing the motivation, cognitive resources and actions necessary to control the events that appear in their lives.

This can be considered as a gateway for the teacher who wishes to intensify the motivation of his students and their involvement. These sociocognitive postulates demonstrate that a student is able to acquire the necessary capacities to take an active and responsible role in his learning process through the web. This is why, without claiming to replace the student and start learning, the teacher must create an environment conducive to learning in his educational system.

It is clear that we have chosen an innovative attitude in relation to the evolution of the use of the Internet in higher education, which is the ability to be creative and reactive by working in collaboration and in thinking with experts. Or groups of professionals on social networks or what is called "brainstorming", which is the technique of finding original ideas intensively used in advertising. It is a learning environment that incorporates tutors and/or experts capable of assisting learners and helping them to be creative and original in their achievements. This also allows them to be close to what exists on the market, to think together, even remotely, and

to collaborate in an intuitive ideation environment. To do so, in order to create a complement to the educational support external to the program, leaving comments, joining a discussion or reacting using emojis are desirable gestures likely to motivate the student and make him more responsible for his learning project.

2.2 Student Self-Regulation

To have a responsible, active and above all dynamic student who adjusts himself, it is necessary to stimulate his attention by giving him a share of the responsibility towards his own activities. In this case, it is necessary to move away from the so-called traditional pedagogy, which makes the teacher the only source of knowledge and which limits the student to the status of the simple receiver of information. We then propose a pedagogy that favors communication based on the relationship, management / trained teacher, where the latter becomes an artistic director who manages a communication box and gives activities to students according to strategies that complement each other with the needs of the advertising market and that of the customer.

In this context, I would like to share with you a personal experience relating to the computer graphics workshop, which I carried out and animated, myself, during the 2021/2022 academic year, at the Higher Institute of Fine Arts of Nabeul with the group of third year degree, specialty "Graphic Design". In this experiment, we have set up structures similar to those of a communication box where the teacher submits the request for the creation of editorial content for a Facebook page. This

consists of teaching students to familiarize themselves with the formats of advertising media on social networks such as animated visuals in "Gif" format which represent a good lever for advertising communication on hypermedia supports which students in "Graphic Design" are not familiar with.

By the way, this is mentioned by Camille Jourdain (2019), in his book "Influence Marketing": "animated visuals and computer graphics serve to offer a unique experience to the receiver of advertising communication on hypermedia supports. Indeed, learning to create an animated GIF image on social networks is an excellent way to meet the instructions of advertising communication according to digital marketing. In addition, it allows students to become creative with digital formats.

Consequently, the students undertake to write a short report in the form of a project specification. However, in order to make them learn to respect the deadline, they are called upon to respect the deadline well determined in this notebook for the final rendering. On the other hand, the follow-up is done in face-to-face mode and also online, in order to be able to work together and in real time, to exchange and circulate ideas on discussion groups such as "Messenger".

The first objective of this workshop is to teach students the importance of digital marketing and computer graphics in advertising communication. As for the second objective, it consists in enabling them to work under serious conditions such as those adapted by the communication boxes on the job market, thus preparing them to engage in the professional life.

This experience was very rich in reflections since it served to develop the technical as well as the conceptual side in the students and above all to improve their ability to adjust to the conditions of work. Moreover, it is in this perspective that they created Facebook pages on which they disseminated their work while respecting the editorial lines of communication on social networks. They have ensured that the pedagogical learning operation is built as a work environment developed by specialists in the complex and rich field of design. The presence of professional conditions in a workshop such as that of computer graphics makes so much information available and encourages students to seek and explore on their own initiative. Thus, they become more autonomous in their training.

This type of pedagogy fundamentally calls into question the current functioning of the teaching of computer graphics in "Graphic Design" which is based on a purely graphic educational device and which allows students only to learn the softwares.

3. Internet, innovation and motivation

In this part, we will focus on the Internet as a source of inspiration for students of "Advertising Design" through the following question: Does the Internet stimulate the student's creative instinct or does it rather transform it into a lazy and inert being?

3.1 Internet, from information to inspiration:

If we are aware information and communication technology in education (ICTE) have entered our "educational customs", we must not forget that it is a tool at the service of the teaching subject.

Recently, the Web, as an information tool, has largely become a web of application

portals characterized by the magic letter "e": "e-business", "e-marketing", ... And of course e-learning.

This new wave has not displaced the old functionalities of the web's information web, but it has developed them, especially with the spread of the "Covid 19" pandemic, between 2020 and 2021. Thus, portal sites and platforms intended for online teaching, such as that of the University of Carthage "www.ucar.rnu.tn", have emerged in order to allow, on the one hand, teachers to divulge their activities and their courses in complete safety, and on the other hand, allow students to easily access information and not miss their courses. We mustn't also forget the evolution of "Google" functionalities such as Google Docs, Google Drive, Google meet...etc.

Still in the same context, discussion groups on social networks also facilitate communication and the sharing of information with students.

From the university point of view, the Internet is, without doubt, the main source of information for young people for carrying out their academic work. Moreover, these young people are not only interested in learning and searching better, but also they are able to evaluate the information found online. This is what challenges the so-called "classic" learning environment in universities.

On the other hand, the properties of an advanced learning environment must be characterized by key ideas notably applied in an optimal external conditioning (behaviorism). Therefore, learning is related to active problem solving and concerns the integration, construction and compilation of new knowledge and new technologies

(cognitivism) which gives rise to constrained learning of human perceptual and cognitive abilities (cognitive psychology).

Moreover, it seems obvious that this impressive variety of different learning characteristics involves very different cognitive mechanisms and therefore requires differentiated teaching strategies. It is in this context that we will study these characteristics through the strategy that uses the Internet as a learning tool.

The following figure shows the diagram of Sandberg (2001) which involves these characters in a complete learning device:

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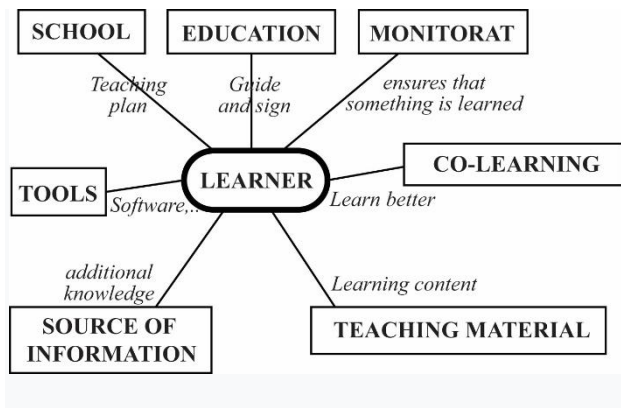
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Fig.1. The functions of the teaching and learning system, according to “Sandberg”



Source: Daniel. K.Schneider, 2001, p.28.

The Internet spirit did not initially have a major direct influence on higher education, except perhaps in computer science where peer-to-peer relations on the network have helped transform the relationship between teachers and students. However, a whole generation of “computer savvy” people have come to know the power of a simple, powerful and universal information and communication system, and this partly explains the extremely rapid adoption of the “World-Wide Web” in higher education.

The strength of a simple, powerful and universal information and communication system is recognized, and this partly explains the extremely rapid adoption of the World-Wide Web in higher education.

There is thus the notion of “information at the finger tips”, in other words the possibility of quickly exploring an information space.

So, what functions can the Internet perform in learning of advertising design?

Referring to this figure, we can attribute to the Internet in particular the “co-learners” function which consists of collaborative learning that engages adequate metacognitive activities favorable to learning, then the “learning material” function through texts, tutorials and educational softwares, then the “information sources” function which is based on scientific literature, glossaries, practical studies..., and finally, comes the “tools” function in computer tools, predefined template...etc.

It is therefore obvious that these attributes call into question the role of the teacher in the face of this new technology.

For teachers self-training, decision-makers and managers in the world of education, who are looking for information and experiences, the implementation of new technologies allows them to make the best equipment decisions, the conduct of the session and the development of teaching resources. This is how the digital universe is today essential in the university environment as an essential universe in the teaching of "Advertising Design".

Clair Bélisle (2004) affirms that it would be more interesting to focus on cultural logic rather than dwelling on the study of the technologies themselves: “To enter digital culture today is not so much to have a computer and an Internet connection but to know how to move in a multicultural information universe. To know today is to access information, not by exposure, but by

active discovery, by manipulation of simulations, by exploration, sorting around a project, framed by critical reflection”.

However, today's students do not treat the Internet as a culture but rather as a source of information that allows to do quickly, in an intuitive and thoughtless way, even without reflection or creativity, especially with the appearance of the sites web that offer Templates and gauges, free to download. On this point, the questions that arise here remain the following: is the Internet a source of inspiration for the student or rather a source of plagiarism? What is the effect of certain sites on student perception and performance?

Sometimes students become very dependent on the Internet to make their advertising designs, most of them casually use pre-made templates.

In this case, the teacher is called upon to stimulate their creative sense and engage them a little more in the activity, by sharing the links of various sites which offer the predefined models in Advertising Design for free, in order to be inspired by these Templates without falling into plagiarism. This is a real pedagogical orientation where the use of the Internet in the learning environment is transformed into a quality that encourages and motivates the learner. From there, he transforms his ability to observe graphic content through digital technology into an ability to be inspired and learn to be original, unique and creative in his advertising achievements.

As the Belgian techno-pedagogue M. Lebrun (2009) points out, "the game of pedagogy and technology is subtle: added

value to teaching and learning through technology requires other methods, close to so-called active (...) pedagogical questions remain antecedent and decisive in relation to technological questions”. So, does learning through technology induce the motivation and involvement of the student in the activity?

3.2 Student motivation and involvement

Motivation is a necessary factor in the process of pedagogical innovation. Indeed, we cannot innovate without personal motivation, without intention and without an action plan. In other words, innovation cannot be decreed, it is an impetus that can result from a desire for change and becomes a need to solve a problem.

In this part, we will study this link between motivation and innovation.

In order to determine motivation, components are used that are directly influenced by the context in which the learner finds himself and correspond to the way in which he perceives the teaching and learning activities that he must accomplish. Indeed, motivation in a university context is mainly influenced by three types of perceptions generated by the process of self-assessment of activities. At the beginning, we have the perception of the value of the activity, then there is that of the competence to accomplish the task which is based on the capacity that the student has to carry out his task and finally, the perception of the controllability of its progress and its consequences which allows the student to work on the task to be accomplished.

So what is the impact of e-learning on these different types of perceptions?

According to Viau (2009) “The perception of the value of an activity is a

judgment that a student makes on the usefulness of this activity in order to achieve the goals he pursues". This definition has two elements: first, the usefulness of an activity that allows the student to know if, by performing this activity, it will be of use to him or her. Then there is the type of objective to be achieved because without a goal, the activity is not valued.

The perspective of the perception of the value of an activity is an important determinant in motivation because if a student does not perceive the usefulness of performing an activity, his motivation will suffer, and it is likely that he chooses not to engage in it. This approach highlights the importance of learning goals. Therefore, the student is able to assess his ability to perform his work adequately and to develop his learning path.

In the "Illustration and Techniques of Representation" workshop, which I myself produced and led during the 2021/2022 academic year, at the "Higher Institute of Fine Arts - Nabeul", with the second degree year, specialty "Graphic Design", the students were had to carry out an illustrated magazine insertion of a Tunisian consumer product (of their choice). To enhance the activity, students were required to work according to the communication strategy, the "storytelling". That is to say, tell the product with an engaging story by taking up a myth to build the advertising message which provides a powerful basis for communication through the illustration technique; this is why we have programmed a course on 3d illustration with the "Illustrator" software.

Besides, what valued our workshop is that it brought together two disciplines that seem different, but which really complement each other, in the creation of advertising on the labor market, in particular marketing strategy and new technologies of 'drawing'. In addition, the students of the Higher Institute of Fine Arts in Nabeul are used to studying the subject "Illustration and Techniques of Representation" with traditional techniques, such as watercolor and pastel and without resorting to strategies. marketing.

This workshop is spread over three stages, the first of which consists of doing research on the internet about the brand, its strategy, as well as its application on the market in advertising campaigns in Tunisia. To better understand the communication strategies of the brand and the chosen product, students use the brand's website and its official pages on social networks.

As for the second step, it consists in the achievement of the models with the pencil and finally the last step which is that of the achievement of the illustrations on the software "Illustrator".

Thus, the students developed pencil models and illustrations in A 4 format, of which here are some examples

Fig.2. Student work.



We note that with the guidance of the teacher, the Web has allowed students to better control their choices, thus becoming much more efficient than before.

On these two plates, we also notice that the students have well illustrated and treated the characters, the shadow/light contrast. In addition, they have promoted their products well through a story that conveys a well-constructed advertising message. Thanks to a relevant research on the internet and also to the new technology of 3d illustration on the 2021 version of Illustrator, the students and their teacher have well achieved the objective of the workshop and interacted more easily, faster and more efficiently.

Actually, the new technologies used in this workshop, in this case the Internet, further stimulated the students' perseverance and their cognitive commitment to accomplish the activity; it has thus improved the performance of the results and that of the students, which is closely influenced by these new technologies.

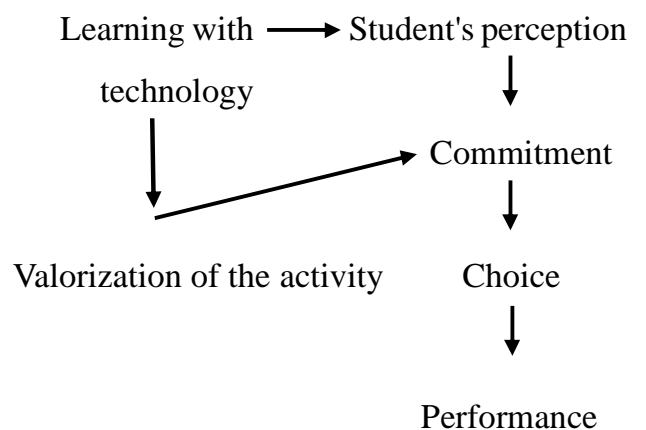
In this workshop, the student appreciates the experience gained from this experimental work that reveals his psychological and cultural openness, his

aspirations and fears, his values and his courage. The commitment of the student in an experiential process allows to integrate necessarily the consideration of the affective dimension. Affective refers to a broad area that includes feelings, emotions, beliefs, attitudes and that significantly conditions the student's behaviour during learning.

Therefore, learners are encouraged to engage in an activity that is eventually set up by a motivation to perform other activities. And, on the other hand, the teacher tries to ensure that the time spent is of quality and not specifically of quantity or duration. We can thus define cognitive engagement as the result of the valuation of the activity. All the student has to do is commit themselves to making the right choice and taking action to improve their performance.

From what we have presented, we can propose the following learning scheme:

Fig.3. Learning with new technologies.



It is a pleasure for the teacher to see a student who is extremely attentive and immersed in his work. The concept of performance is intimately linked to the involvement of the learner in the previous steps. We can therefore see that the notion of

learning calls on a dynamic state of fulfillment that is built through new technologies.

According to P. Parmentier (1998), it is necessary to be attentive to the fact that "motivation is not only a matter of intentions, even of efforts that you are ready to make, but that it also implies the effort that one really devotes to learning". So once the student is motivated by technologies, he

4. CONCLUSION

In this article we have focused on the study of university learning with digital technologies. And from what we have presented previously, it would be possible to say that the Internet is building a new relational and societal environment to be exploited to contribute to educational innovation. This global computer network, with all the innovations that it encompasses and offers to the user in general, proves to be extremely useful for university education, but on condition that it is monitored and directed by the teacher. In conclusion, we found that, according to our experience at the Higher Institute of Fine Arts in Nabeul, the idea of pedagogical innovation, in the field of advertising design, cannot relate only to technological innovation, as we have seen at Lebrun, it is above all focused on raising student's motivation by evoking and channeling their aspirations, efforts, perseverance, ability to master digital technologies including internet research and new versions of graphics software, to be creative and overcome learning difficulties, In a word, technological innovation does not necessarily lead to

becomes really involved in learning. According to Heckausen & Gollwitzer (1987), "the transition from the motivational state of deliberation to the motivational state of execution involves a qualitative leap in terms of the cognitive functioning of the individual". In other words, the integration of new information technologies into pedagogical strategies could play a role in this incentive to switch to the desire to learn.

pedagogical innovation. It depends, in fact, on the perception of being involved by the student as well as by the teacher who is constantly in training on new digital technologies. So, the question that now arises remains the following: does technological innovation always bring about change in pedagogy?

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