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15. ON AN AESTHETICS OF THE TEACHING-LEARNING PROCESS IN THE AI SOCIETY

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Abstract: *The educational society highlights new ways of approaching the teaching process. Among these new approaches there is one that comes from the perspective of the new artificial intelligence. In other words, in this research our goal is to see to what extent the emergence and continuous development of AI has determined and still determines a new approach to the assimilation and learning process. Certainly, such an approach becomes exhaustive as a series of topics referring to such a theme are analyzed and explained. Under these conditions, the purpose of this research is to explore how aesthetics – in its sense of perception, beauty and harmony – can influence and improve the educational process in the context of the use of the artificial intelligence (AI). We are equally interested in analyzing how the concept of "aesthetics", usually associated with arts and design, can be applied to the teaching-learning process to create enjoyable and effective educational experiences. That is why we consider the approaches by which the learning materials are structured, the user interface in AI-based educational platforms or the design of virtual educational spaces, all contributing to a harmonious, attractive and pragmatic learning experience.*

Key words: t*eaching aesthetics, learning aesthetics, assessment aesthetics, digital pedagogy, education*

1. Introduction

The analysis of the educational process, viewed as a whole, reveals a whole epistemic approach through which a series of aspects are revealed regarding the methodological strategies assumed by the educational actors. Such a problem requires, from our viewpoint, the concretization of a scientific foundation intended to support such methodological strategies, starting from a series of learning-teaching-evaluation experiences explained from the perspective of new scientific discoveries. (Kabudi et. al., 2021) We consider in such an explanatory context the idea of artificial intelligence (AI) which is becoming increasingly relevant within the current educational society.

In this respect, we can talk about a new approach to learning, about a specific form of digital pedagogy. In addition, the idea we want to discuss refers to a stylization of such an educational approach, about a process of recalibration of the educational methodology in the context of the digitization. The digital pedagogy is basically nothing more than a new paradigm at the level of the current society, a paradigm that comes and completes the previous one. (Zawacki-Richter, Marín, Bond, Gouverneur, 2019).

As much as a new approach is involved, however, it remains to be seen how the information, the recognizable contents can be processed, analyzed, evaluated and disseminated in relation to the new digital technologies. In educational terms, we can ask to what extent the curricular contents can be reinterpreted, reassessed and recalibrated so that they can prove their effectiveness at the level of the teaching-learning-assessment process. It also remains to be analyzed under what conditions

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such efficiency can be quantified and validated at the level of an educational system. Why do we report in the A.I. society to a new aesthetic of teaching, learning and assessment? How relevant does such an approach become for the contemporary society?

The emergence of creative strategies to approach the learning contents made it possible to reconsider and reevaluate the idea of managing the education process as a whole. (Bengio, Lecun, Hinton, 2021) Also, the creation and development of educational software or educational robots have only personalized the entire learning process across the educational culture. In other words, we note that the entire approach to learning at the global level is focused on adaptation: the adaptation of the human being to the environment or the transformation of the environment itself through the AI (for example, the emergence of virtual courses/classrooms, virtual learning environment or even facilitating the learning process through the virtual teacher).

The adaptation is a relevant coordinate in the learning process. In this context, we can wonder under what conditions we can talk about the idea of adaptation in education in an AI society? Is it an adaptation of the human being to the AI technology or to the new learning environment created through intelligent technologies? Or, can we talk about an adaptation of the new AI technologies to the human being, to the actions taken by him and to the environment in which he lives and learns? We notice a shift from a certain typology of teaching (specific to the human nature) to a typology of teaching (which is not specific to human nature). The common point of the two typologies is the intelligence. What tells them apart, however, is the ways in which the intelligence as such is materialized. In other words, the learning and the process by which this is possible rather involves the recognition of the need to facilitate some knowledge, as well as to learn how it can be utilized by the learner.

2. The teaching-learning in the AI society

The discovery of new patterns through scientific research reveals the need for a pragmatic management of the learning context. In other words, the personalization of the learning experience means adapted learning resources according to the context and environment in which an educational endeavor takes place. It is certain that the relevance of the AI from an educational standpoint acquires validity at the level of society by the fact that it can translate into a pragmatic plan a series of aspects beneficial to the humanity in general, all of which are correlated with responsible ethical concerns.

Under these conditions, we can no longer accept the idea of standardization and uniformity of the educational dimension. We consider the need to approach a certain type of content from a perspective that reflects the possibility of adaptation. We consider the adaptation of new innovative models/paradigms to the teaching-learning process in order to optimize the educational approach. The adaptation itself involves a reformatting and a new process of stylizing the educational methodology in relation to the learning typology of each person. We have in mind the idea of readjustment and recalibration of resources in relation to the new virtual contexts and from the real environment that facilitate the concretization of the methodology.

Such an image basically reveals a personalized approach to the teaching-learning process, a process that facilitates the academic performance and the development of pupils' social and emotional skills.

The customization and optimization of such an approach becomes possible through the AI. This involves a whole process of improving and perfecting the contents and the actual teaching-learning methodology in relation to personal and social needs. Starting from the context in which an educational approach is carried out, the very concept of "teaching" can be defined taking into account the learning algorithm, but also the ways of using new technologies. (Arkorful & Abaidoo, 2015) Also, the transmission of contents rather involves a process of facilitating thereof. In other words, through the AI, the access to knowledge/information is facilitated and the facilitator is no longer just the teacher, but also the educational software, the virtual teacher, the Artificial Intelligence as a whole.

From these reasons, we can admit that with the emergence and development of the AI, the conditions of learning have also changed, as well as the context in which they become manifest. This metamorphosis highlights the need to adapt the learning contents, which can be explained by the need to customize the teaching. Such customization translates the need to reassess the ways in which the learning process takes place. It is about an image that only reflects the need to readjust and (re)aestheticize the learning strategies and methods, by taking into account the needs and requirements of the educated, but also of the educational society. (Reid and Petocz, 2004).

Such an image reveals the idea that through the AI, the adaptation to the environment can be improved. Moreover, where the adaptation is difficult to achieve, we can change the teaching environment itself, and the AI also has an important role in such an endeavor. Surely the process of teaching through the AI cannot be independent of the human mind. We can see that through the AI such an approach becomes more tailored, in the sense that the teaching-learning path is customized. The automation of teaching also involves a reduction of the classic/traditional tasks that the teacher transmits to his pupils/students. Can we speak at this moment about an "increased" interaction between the socio-educational actors in a certain context? An obvious problematic situation is that according to which we should identify the educational indicators by virtue of which we can capitalize on teaching strategies of a formal or creative nature.

Thus, on the one hand, if we focus on strategies of a formal nature, then certainly the evaluation process can be implemented more easily through smart software/applications. Also, the existence of a mathematical formalism in such an educational approach brings along the need for personal and professional self-evaluation starting from pre-determined criteria that can announce achievable objectives in a methodological context. Thus, the assessment process itself can involve rapid feedback, which can be a real foundation for the quality of the learning act. On the other hand, if our didactic approach involves teaching strategies based on the creativity process, then clearly, from our point of view, the evaluation should be carried out in relation to a series of criteria and items that can generate, through an entire quantification process (Ali, Khaled Hossain & Ahmed, 2018), an effective feedback and as close as possible to the real qualification. Such an approach rather

constitutes an ideal form of evaluation if the evaluator himself does not identify and establish in advance the criteria and the method of evaluation, which is/will be marked anyhow, in such a context of subjectivism (a state which is in no ways a harmful condition, unacceptable in the evaluation process).

Also, if we are to admit the idea of educational automation, then surely the issue brought into discussion is that of the human interaction. What exactly will the future societies call a context as "being human"? Will the interaction be strictly human or will it be one among groups of hybrids? We do not know to what extent the impact of such an evolution or involution will be more or less satisfactory for the best of any possible worlds. On the one hand there is the possibility that at the level of such a digital pedagogy, the automation of the teaching-learning process will be reproduced by supporting didactic strategies. In other words, the educational software, the digital educational platform, the resources and the intelligent teaching tools, whatever it may be, can determine the way the teacher acts, but also the reaction of the learners (pupils/students). There is the possibility that the (human) teacher is focused on the relationship of interpersonal interaction with his pupils starting from such foundations of a technological/digital nature.

On the other hand, we believe that such an approach can be particularly useful for people who have certain learning difficulties. This is about a whole process of innovation and creativity within such an approach. We can also notice a metamorphosis/change in terms of the educational roles. The teaching and learning are facilitated through such supportive strategies. Thus, we can state that the content approach methodology can be developed and improved in relation to the impact of AI technologies on the educational society.

3. The assessment in the AI society

The quality of the learning process is correlated with that of the assessment process. Such an evaluation process also involves reformatting and recalibrating at the educational level. In this sense, can we talk about a personalization of the evaluation process? Is an objective evaluation possible from the perspective of the AI without the intervention of the human being? What are the criteria by virtue of which points can be awarded ex officio or the objectivity of the evaluation can be achieved? Thus, the performance can be analyzed, on the one hand, by referring to the educational process, and on the other hand, to the quality of the act of teaching-learning-evaluation found at the level of the relationship between the teacher and the pupil/student. The autonomy in learning can be completed much more easily by the autonomy in the evaluation process. In addition, the idea of feedback can reveal to us the fact that we can talk about an improvement of the learning process as a whole.(Heimlich, 2010)

Rethinking the assessment means rethinking the strategies that make it possible. (Topping, Smith, Swanson and Elliott, 2000). The maximization of beneficial results can thus represent a consequence of the way in which the evaluation process is thought and reformatted at the level of the AI society. Also, the evaluation process itself reflects a responsible approach to its causes and effects. (Eseroghene & Ahmad, 2018). In other words, we can also talk about a personalization of the evaluation in this case. However, such customization reveals

an approach from the "real" teacher towards the pupil/student or an approach from the "virtual" teacher (represented by AI) towards the learner. Under these conditions we can wonder to what extent we can identify and accept the objective dimension of the assessment at the level of such customization. (Plaschka and Welsch, 1990).

The objectivity in the evaluation process only reveals an image considered adequate in relation to the reality of the exposure of results considered correct and compliant to certain standards. Under these conditions, we do not know to what extent such standards can render a minimum and a maximum for obtaining a qualification. (Pereira, Flores & Niklasson, 2016). The assimilation and rendering of content in relation to certain standards considered quality must be achieved, in our opinion, through what is known as gamification. (Struyven, Dochy & Janssens, 2005)

On the one hand this basically involves a competition with oneself, and on the other, with the system as such. In other words, the goal becomes just a simple stage precisely to achieve another goal (Fink, 2005), apparently adjacent, but which can generate satisfaction, efficiency and pragmatism. We have in mind in this sense the fact that the first goal is or will be fulfilled anyway, but what interests us at this moment is the second goal. Or, this second goal can be fulfilled if we consider a third goal, and so on. It goes without saying that such an approach is not meant to be Sisyphean, but rather one that contributes to learning through multiplicity and diversification. The emergence of new approaches to new goals can be controlled by flexibility and the identification of new standards (in the teaching process, but also in the implementation of the assessment). (Cope, Kalantzis & Searsmith, 2021).

We can thus be aware of the fact that the assessment process needs a controlled gamification, and for now such control can be possible by calling on the AI. However, it remains to be analyzed to what extent the AI can reveal and generate criteria of objectivity that allow an adequate correspondence between what is evaluated and the reality to which such an evaluation relates. How can the distractions, the disruptive factors be removed by the AI? What about those who relate to aspects of an affective nature? The assumption we want to bring to the fore is related to the implications that the AI can have from the perspective of the accountability process. (Ewing, Monsen & Kielblock, 2018; Miller, 2011). In other words, the AI could objectively assess everything related to the smooth running of the teaching-learning-assessment approach. The pedagogy of digitization is also the pedagogy of teaching, as well as the pedagogy of assessment.

Therefore, we can state that the accountability stylizes the entire evaluation process. Consequently, we also believe that the evaluation strategies must be rethought and recalibrated according to the way in which a digital pedagogy is achieved. Certainly in such a context we can admit the idea of a digital (real or virtual) teacher. At the AI level, the customization of the evaluation process is the result of the creativity and the methodological innovations. The very process of perception of the ways in which the assessment is achieved becomes fundamental in this approach. The specific "aesthetic" property of such a process derives, according to our point of view from its quality. In other words, the stylization also implies a reflexive, anticipatory, rigorous and well-structured act.

Therefore, in the AI society, the assessment is not only the process by which

we carry out a qualitative and quantitative analysis of the results obtained, but also the process by which we consider our own way of perceiving the context in which such an analysis takes place. (Acevedo et.al., 2022) Such a perception generates evaluation experiences that can be correlated with the idea of evaluation aesthetics. In other words, the way to build and implement an evaluation process can constitute a structural approach which can be characterized by clarity, positive perception that conveys affective states. The assessment experiences actually represent the experience of the (real or virtual/AI) assessor, but also of the person being evaluated. And such experiences reproduce the very design of the assessment process assumed, which is predetermined and put into practice.

4. Conclusions

The presence of the AI in today's society (especially in education) reveals the very idea of changing the quality of life. In such a context we have in mind technological services and products that allow the automation of tasks that require a high degree of risk or even a series of high finesse approaches (in medicine some serious diseases can be diagnosed and even treated; also much more effective treatments can thus be discovered). Such approaches are also possible as a result of an intense process of innovation arising from science. Therefore, we can state that in a society of artificial intelligence, the education cannot exist without the results of science. At most, it can survive in an outdated and purely formal environment.

However, we believe that we must be cautious when we assume the need for an idea of aestheticizing the teaching-learning-evaluation process. Also, what is appreciated must be positioned in equal measure with what becomes describable by referring to the constituent elements. In addition, the balance found within such an approach can only reveal a pragmatic adequacy between the equal opportunities and the fairness in assessment starting from the very idea of flexibility in the teaching process, but also in that of the autonomous learning. Moreover, by assuming an aesthetic approach in such a process, we can see an increase in motivation and, why not, a decrease in anxiety/stress among the educational actors. The digital pedagogy belongs basically to a new dimension that takes into account the aesthetic dimension of the operationalization of such an educational approach.

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