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Technology: From Serving the Teacher to Aspiring to Ruling; Is It Possible?

Seyyed Mahdi Sajjadi

Professor of Philosophy of Education, Tarbiat Modares University, Tehran, Iran. E-mail: sajadism@modares.ac.ir

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ABSTRACT

A proper understanding of the teacher's status in the context of technology, especially new technologies such as artificial intelligence, requires an analysis of the philosophy of evolution of technology (nature and aims of technological developments) on the one hand and its relationship with the pedagogy and teacher on the other. In other words, the teacher's activity as a main factor in pedagogy has been a function of the philosophy of technological developments throughout history, and a proper understanding of this activity also requires a precise understanding of the nature and aims of technological developments. Accordingly, here we first refer to the stages of technological evolution and its meaning and functions, and then we discuss the impact of these stages of evolution on the role and activity of the teacher in the pedagogical process. The question that this article wants to answer is whether artificial intelligence, as the last stage of technological evolution that wants to replace the teacher in pedagogy, can replace it or not, and if not, what is the solution for the teacher and artificial intelligence to be able to function simultaneously?

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Technology: from past to Now

The word "technology "have their roots in the Greek concept of tekhne or techne, which can be loosely defined as both the process of creating an "art" or "craft" and the knowledge (episteme) behind the creation of the final product. While some hold that the suffix x "-logy" (which often denotes an academic field of study) combines with techne to form a definition approaching "the study of craft, "the "-logy" in the contemporary word technology actually comes from the Greek logos or reason. Eikeland (2014) says:

> Linguistically, techne is at the origin of everything "technical" or "technological" in modern languages. In modern contexts of action research and professional practice, techne is often presented with phronesis and episteme as knowledge forms introduced by Aristotle (384-322BC). It is usually interpreted as a technological or mechanical knowledge form. With episteme, interpreted as "science", techne is used to describe ways of knowing dominant in the modern period, with which action research mostly does not want to be identified. The original meaning of techne is "art". Like Latin ars and English "art", it carries double meanings. Ars and techne indicate what a modern "artist", but also what an "artisan" and a "technician", does. On the one hand it indicates something creative and expressive, for which there hardly exist clear rules, and where skillful and mindful discretion is decisive. On the other, it indicates something technical, i.e. something which by definition is strictly rule based, drill-based, and almost mechanical (Eikelend, 2014, 768).

Techne is both art and craft, which modern languages tend to separate. Every artist may need to be an artisan, and an artisan should preferably be an artist as well. But today poetry belongs to the creative and expressive pole, while everything technical belongs to the rule-following, drill-based, and mechanical pole of the old techne. Techne is a way of reasoning. A way of reasoning or using reasoned speech. In a wide sense, techne is connected to any consciously intentional and knowledge-based activity provided with a method. A technitês was an expert, and techne could mean articulate, skilled expertise in any field or subject.

Today, the rapid developments of artificial intelligence (AI) have brought so much controversy in terms of whether it can revolutionize pedagogy and education. While AI technologies are yet to be fully developed, more and more attention is being focused on their capacity to replace traditional learning and teaching methods, particularly in the work of human teachers. Artificial intelligence systems such as virtual teaching assistants, computer grading programs, and adaptive learning platforms are being introduced into the

classroom to aid and support teachers' work. While these tools provide new means for personalized learning, some have raised concerns about whether AI can possibly replicate the subtlety, interactivity, and emotional nature of human teaching? To answer this question, we must first examine the aims and nature of evolution of technology from the beginning to the present, so that we can point to the position of the teacher at each stage of technological evolution. The steps are as follows:

First Stage: Technology as a servant

The early media can be called traditional technology that is several decades old, so that it was not easy for all people to access it. But in contrast, there are new media that use modern technology in their development and are the opposite of traditional media in terms of characteristics. It can be said that technology in the early stages of its development had a simple structure that could be used by people and was produced and used simply as a tool in accordance with the user's goals. In this view of technology, the user's goals were prior to the use of the tool. This view of technology also had a philosophical basis that can be summarized in one sentence: *"We make tools as we think."*(Sajjadi, 2016, 24) In other words, all human progress in the field of technology is the product of the type and quality of human thinking, and humans produce tools in accordance with what they think.

According to Dennis McQuail (1994), new media, in contrast to traditional media, are a distinct set of communication technologies that have certain characteristics in addition to being new, digital facilities such as the Internet, and being widely available for personal use as communication tools. He goes on to write about the popularity of new media even among old media (McQuail, 1994).

At this stage, technology as a neutral tool is neither helpful nor harmful. It is simply a tool. The consequences of technology depend on how it is used. Artificial intelligence is a technology. How we choose to use it, as well as the ethical aspects of its use, determine the meaning of technology. Tools are made to be used. How they are used, who uses them, and for what purpose they are used, determine their effects. Accordingly, how and for what purpose a teacher uses technology determines whether the technology is helpful or harmful.

Teacher and the "Technology as a Servant"

Chandler (1999) points out that many of the goals that are raised in education corresponding to the instrumentalist approach exist a priori in liberal education and, as if riding on the combination of technology and technological media, the teacher advances towards achieving these goals much more easily and with increasing speed. This is because, technology is a neutral tool for achieving natural human goals and will make the path of

teacher smoother and faster in this regard (Chandler, 1999, 7). In a pedagogy based on "technology as a tool and servant", the focus is on the user (teacher), and technology merely creates a possibility for the teacher, not a requirement.

By looking at technology as a servant, the teacher in the pedagogical process can be an active agent for choosing and selecting the desired content consciously based on his/her interests and purposes (Wang, 2012) and, as a rule, the teacher as an agent is also responsible for the content that he has chosen for teaching and learning. The teacher also makes efficiency the criterion for selecting and applying technology in the classroom because the approach to technology as a tool considers the neutrality of technology based on the criterion of efficiency and therefore considers it applicable in any society and any context. In other words, technology is indifferent to the political, social, and cultural considerations of various societies, and the only criterion for evaluating and guiding it in different cultural and social contexts is its productivity and efficiency (Feenberg, 1991).

On this basis, it can be said that education or pedagogy is independent and prior to the tool (technology). The teacher, as a user, had agency in implementing pedagogical programs. The teacher is free to use technology at any time, place, and to the extent he deems necessary, and there are no restrictions on the use of technology by the teacher. The phrase "technological education" is related to this stage of technological development. That is, training users (whether teachers or learners) to better use technological tools. Programs focused on media literacy are in line with an instrumental view of technology.

Second Stage: Technology as an intervener

Marshall McLuhan (1964) believes that although technology originates from the mind and actions of man, but man in every era and period is born of the technology of his time. In other words, every technology gradually places man in a new space, and every new space is considered a determining factor in the fate and life of man. In his opinion, the communication system, determines the content of the message. He expresses the basic principles of his theory in one sentence: *"The medium is the message"* (McLuhan, 1964, 9). In fact, McLuhan emphasizes that one of the functions of technology is to unify and assimilate ideas. It could be said that Heidegger's interpretation of what lies behind modern technology is based on such an understanding of the function of technology, namely the unification and, as it were, molding and shaping of ideas, humans, and ultimately societies (Mitcham, 1994).

In the second stage of its evolution, technology has transformed from a tool to a machine. It has a complex structure. The machine also operates independently of its creator. Technology, as a machine, is influential, transformative, and constructive. It is no longer

simply listening to commands, but rather is language itself and has something to say. The language of technology at this stage is intervention and creation, and it gives meaning, direction, and purpose to human lives. Because the media is the message, and it is the media that gives meaning and identity to life. The proposition "we think as we make tools" is also the philosophical basis of technology at this stage. This means that humans first acquire technology and then think under the influence of its capabilities and applications. As Deleuze (1987) also believes, *"there was geography (place) at the beginning and then it was formed the thought. In other words, place precedes thought and idea"*. (Sajjadi, 2023, 18). At this stage, technology, by its inherent nature, changes and creates ideas, thoughts, and identities. Van Dijk (2004) states that the new network society attacks some of the fundamental and basic values and norms of societies and, through the provision of trans local and global data and information, challenges local values and norms, which will lead to the reproduction of social inequality (Dijk, 2012).

Teacher and the "technology as an intervener"

The scenario of education ،training or pedagogy is no longer defined and formulated independently of technology. Because just as man has created technology, technology also creates its effect on man and his life. Creating new concepts and creating new identities, including the creation of digital identity, as well as producing technological pedagogies, is among the technological interventions in education and in teaching. The teacher serves the capabilities that technology creates. In other words, technology puts the teacher under the control of its requirements and capabilities. The teacher coordinates and adapts the goals, programs, methods and processes of teaching with the requirements, facilities and opportunities that technology provides, and it is no longer possible or necessary to conduct teaching in a traditional way.

In the discourse of technology as an intervener, media are divided into good (educational) and bad (non-educational) media in terms of their impact on education and pedagogy, and as a result, the teacher's task is to filter the content of the media. The issue of filtering or censorship also arises from this approach to technology. Because technology is no longer neutral and indifferent like the previous stage, but is self-determining and influential. Sometimes positive and sometimes negative. Accordingly, the teacher is forced to pay attention to the requirements and logic of technology both in selecting the content that is presented to the learner by technology and in selecting the methods of presenting content and knowledge. In other words, at this stage of technological growth, the teacher is the ear and technology is the language. Because the proponents of this approach to technology acknowledge the dominance of new technologies and mass media and, as a result, the

activity of the teacher as an individual whose power of choice and responsibility has been greatly reduced. Accordingly, the expectation is that the teacher can adapt himself to the requirements and expectations of technology and Ride on the wings of technology and move in the direction that technology determines. Feenberg (1991) states that *"in fact, what confronts us with the inherent truth of technology is that technology has become an environment and a way of life"*. (Feenberg, 1991, 94).

Stage Three: Technology as a Mediator

With the increasing dominance of technology over the flow of education and intervention in pedagogy and teaching, and its unintended consequences, opposition to this role of technology has increased. The time has come to change the role of technology, and technology has inevitably entered the third stage of its role-creation, namely the role of intermediary or mediation. It seems that technology is no longer tired of being both an ear (a tool) and a language (an intervener), and these two roles have also provoked opposition and debates, especially in the field of education and the role of the teacher.

For technology, the best alternative in these circumstances is to be in the middle. That is, it is neither silent (a mere tool) nor an intervener (a pure determinant). Mediation (being a mediator) is the third stage of the role that technology has accepted. Being a mediator and intermediary between man and nature (the world), that is, technology is a bridge between man and the world outside him. The mediator is both impartial and does not intervene unilaterally, but sometimes judges in favor of one and to the detriment of the other, sometimes in favor of both and sometimes to the detriment of both parties. The mediator's goal is to regulate the relations between the parties. Sometimes by adding something, sometimes by changing something, and sometimes by reducing the role of something. Technology, as a mediator, tries to bring the two sides of the dispute to a third point.

To define the mediation of technology, Latour (2014) tries to differentiate between technology as a tool, technology as an intervener, and technology as a mediator, and believes that:

> A tool is something that transmits meaning or power without transformation, but mediators transform, translate, distort, and modify the meaning or elements they are supposed to carry. The mediator does not just transmit what the other mediator gives him, but changes it. It adds something of himself to it and transforms it into something else. Technology changes the goals, interests, intentions, and ideas of the actors (teachers) into something else (Sharifzadeh, 2020,77).

Technology can give the teacher new ideas and plans. For example, without the mediation of telecommunication technologies, the teacher cannot think about the quality of non-face-to-face education. Technology also helps to synthesize our actions. In the sense that our action in connection with technology is no longer our own action, but rather a mediated action. Action, in Latour's view, is a property or characteristic of a network or chain of actors, not a characteristic of a single actor. Therefore, a set of heterogeneous actors such as humans, cars, roads, driving regulations, police, etc. leads to the emergence of driving action (Waelbers and Dorstewitz, 2013, 25). Through the mediation of technology, humans delegate their actions to technologies. The police delegate the action of slowing down cars to speed bumps. The transfer of action is not only from humans to technology, but technology also delegates another action to humans, so not only do we tell technology what to do for us, but technology also prescribes actions (Verbeek, 2010). Technology changes the human condition and this reflects the fact that we are a historical reality. The lack of change in technology means the lack of change in the process of improving and becoming a perfect human, which means the inextricable link between human identity and technology (Gehlen, 2003).

According to Deleuze (1986), the prosthesis is a symbol of technological artifacts that act as an external organ but in order to expand the human being and provide an image of the human organ. Just as the ship finds meaning with the port, although the ship sometimes moves away from the port... (Smith, 2018, 36).

Peter Slotrick (1999) believes that today's technologies redesign the human being on the physical level. When a deaf person can hear from then on with the implantation of auditory nerves, a link is created between the human and the technology that is inseparable (Verbeek, 2008, 387).

Teacher and the "technology as a mediator"

Technology in the role of mediator and intermediary has three basic functions, each of which affects the teacher's situation.

1.Mediation as a changing and reversing

In this type of mediation, technology changes the interests, motivations, and goals of people and translates them in another way. For example, the teacher's intention in the teaching process is to transfer information to the student, but technology, through its mediation, provides the teacher with the possibility of verifying that information, and from then on, the teacher's goal is no longer simply to transfer and express information, but verifying and validating information also takes its place at the top of his goals and interests. Technology,

through its mediation, changes the teacher's goal of teaching and turns it into something else. Just as a gun (as technology) is for hunting, it can lead to killing people by changing and reversing the goal and motivation of the gun owner.

2. Mediation as a composition

The role of the teacher is no longer realized alone. Teaching is a combination of other surrounding actions. In the traditional pedagogical system, the teacher was the transmitter of information and knowledge, and the student was the receiver. The teacher's action had nothing to do with the student's action. With the mediation of technology, the learner is also simultaneously present in the teacher's teaching and plays a role. Technology establishes a bridge between the teacher and the student, in such a way that the teacher cannot teach without paying attention to the students' actions. Online collaborative learning environments or courses (MOOC), which are the product of the presence of new technology, actually lead to the combination of teacher and learner actions, content, etc. Teaching is like driving on the road, where the driver cannot drive without paying attention to traffic signs, the road, the police, and the capabilities of the car itself, etc. The act of driving is a combination of other actions (Sharifzadeh, 2020, 79).

3. Mediation as a Delegation

Sometimes the mediation of technology is to the extent that the role that is the teacher's responsibility can be assigned to it and the teacher's direct presence in the teaching process is no longer required. Virtual educational networks, such as YouTube, artificial intelligence software, etc., can perform and represent the tasks that are the teacher's responsibility. Online cameras can represent the teacher's duty to control and monitor the behavior of students. Just as cameras on roads or speed cameras on the street represent the presence of the police, modern technologies also represent teachers in the pedagogical process. In composition, the teacher or police are not eliminated, but have an indirect presence on the scene, and technology turns this direct presence into an indirect one.

The Last Stage: Technology as a substitute

It seems that with the tremendous advances that have occurred in the field of technology, especially with the emergence of artificial intelligence, technology is no longer satisfied with instrumental, interventionist, and mediator roles and is assuming a greater share of the creative role for itself. In other words, being an ear (tool), being a language (intervener), and being a mediator (referee) are no longer satisfactory for technology and it seeks to play a role in another context. And that is nothing but the desire for substitution. In substitution, two-way interaction does not mean much, as in the previous three stages, interaction was

relevant, although with different intensity and weakness. Rather, in this stage, elimination or marginalization occurs, and artificial intelligence tends to take the first role in pedagogy and put the teacher in control. Supporters of this view believe that artificial intelligence has advantages over teachers that teachers do not have, such as the fact that artificial intelligence is not human and cannot get tired or confused. It is always available in all situations and time is available to us. There is no pause in its work. It does not give priority to anyone and treats everyone equally. It does not have an unconscious bias towards anyone. It is not prejudiced against anyone and answers every question. It gives the learner the opportunity to learn and does not force him to learn and do homework.

The depth of access of artificial intelligence to information is greater than that of a teacher, and it is available at any time and place and provides information about all subjects. As Nick Peachey (2021) believes, "the greatest advantage of artificial intelligence over a teacher is that it is not a human artificial intelligence" (Peachey, 2021, 5).

Teacher and the "technology as a substitute"

Today, artificial intelligence, as the most advanced aspect of technology, teaches instead of teachers. It evaluates instead of teachers. Instead of a teacher, he writes programs. Instead of a teacher, he does research. Instead of a teacher, he leads. Instead of a teacher, he writes lesson plans. Instead of a teacher, he asks questions. Instead of a teacher, he answers and writes (Masters, 2025). Therefore, it seems that the most basic function of artificial intelligence, with all these displacements and substitutions, can be summarized in the following three cases:

1. Reconceptualizing of the concept of teacher

A teacher is no longer a purely human (human-like) thing. It is also technological. By entering the era of artificial intelligence, we enter the post-human world. A world in which humans are no longer rational animals, but rather technological- rational animals. Being technological is part of the identity and definition of humans, just as being rational is also part of human identity. Therefore, a human being finds a definition beyond what he had before. To the extent that he is intertwined with technology. As a result, a teacher is no longer just a purely human being, but technology can also be considered a teacher. Come on. Technology is intertwined with humans. It seems like a kind of de-humanizing of pedagogy is happening.

2. Creating a new metaphysics of knowledge

In the stages before the era of artificial intelligence, knowledge was a category that could be transmitted by the teacher to the learner. Knowledge had certain limits and boundaries

and could be transmitted. Knowledge was a content that was possessed and controlled by the teacher and then transmitted. In other words, when knowledge was spoken of, it was a certain, fixed, accessible, describable and transmittable content by the teacher. But today, knowledge is not distributed in the teacher's brain, but in extensive communication networks, and the communication networks themselves produce and distribute it. Knowledge through artificial intelligence is distributed knowledge that is produced and distributed only within communication networks (Siemens, 2006). Knowledge is no longer something that can be transmitted that requires the teacher as a human being. The communication networks themselves produce knowledge and then transmit it. Therefore, it seems that the historical task of being a teacher, which has been the transmission, understanding and teaching of knowledge, is disrupted.

3. Adjusting the teacher with technology

Since the logic of artificial intelligence is a replacement, in an artificial intelligence-based pedagogy, the teacher (as a human being) is either eliminated or is forced to adapt and adapt to the requirements of artificial intelligence technology. Therefore, teachers who can align with artificial intelligence can continue to be present in the pedagogical scene.

what we should do?

If we ask artificial intelligence what its task is, it will undoubtedly say: domination over the teacher. Because, due to the richness of the content that exists in artificial intelligence on the one hand and the coverage that it has on the entire flow of research, learning, and education that form the foundation of pedagogy, it naturally removes the teacher from the state of subjectivity and agency in policy-making related to pedagogy and turns it into a passive and submissive element. However, some believe that artificial intelligence can never dominate the teacher forever because artificial intelligence is not human, while pedagogy is inherently a human process. Peachey says:

> The teacher, as a human, empathizes with the learner, expresses emotions. He always cares about the learner and wants him to do his homework in the best way. By encouraging, he improves the motivation to learn. There is no moment when he does not remember the learner or puts it aside. The teacher has a lot of lived experience that he can use. The teacher simultaneously feels sad when the learner fails and is happy when he succeeds, and at all times is with the learner and evaluates his efforts (Peachey, 2021.6).

Therefore, if we want to take another path that does not end in domination and where the teacher continues to have his or her independent identity alongside artificial intelligence, while simultaneously utilizing the potential of both, we must put the integration of these two categories on our agenda. In short, we will refer to the four types of integration between AI and Teacher, below:

1. Reductive integration

Where there is no fundamental difference between the function of the teacher and artificial intelligence, that is, both have almost the same function, but one is more comprehensive than the other or encompasses more dimensions of the teaching category, or one can be a substitute for the other, one can be defined as a subordinate to the other. For example, in teaching, where the function of the teacher and artificial intelligence is both teaching and teaching, one can be defined as a subordinate to the other in some subjects or contents. For example, it can be said that teaching or instruction ethics or teaching social skills has only a perceptual, cognitive and human nature and foundation, and technological teaching is also considered a part of human activity, and the teacher, as a human being, also uses technological capabilities, skills and capacities in the process of teaching or instruction ethics and social skills. With reductive integration, both human and technological capabilities are used, but one is subordinate to the other. In other words, it is the teacher who takes on a greater share of teaching.

2. Synthetic Integration

In Synthetic Integration, while maintaining the independence of these two domains, features from each are derived and combined, creating a third state. In such a way that neither the teacher alone is original nor is artificial intelligence. Rather, both the teacher as a human researcher and artificial intelligence as a searcher are involved. For example, in research and investigation, neither the teacher alone nor artificial intelligence alone are the criteria. A combination of the achievements of both can be considered valid and documented. In this case, neither the teacher nor artificial intelligence is sufficient. For example, a teacher can conduct research and give the results of his achievements to artificial intelligence to write, classify and format them artificially, and the output of the combination of these two activities can be presented in the form of a credible scientific report. In this case, there is no mention of the dominance of artificial intelligence over the teacher. The output of the combination of the teacher's action and technology in the matter of research and writing is something that is not each is not achieved by separate action. It is only through combination that a third outcome is achieved.

3. Horizontal integration

One of the teacher's missions is to develop critical thinking in students. This growth also occurs through strengthening the flow of questions and answers. One of the capabilities of artificial intelligence is to pose various questions from different angles (given the scope and breadth of information and findings it has), and on the other hand, the teacher is also a questioner. The teacher's questioning, in parallel with the questioning of artificial intelligence and horizontal integration, can lead to an increase in the power of critical thinking in students. This synergistic horizontal integration can also be mentioned in the matter of conducting research and writing.

Masters (2025) in an article titled "Artificial Intelligence and the Death of the Academic Author" says that in the academic world, the essence of work is research, not writing. In fact, the researcher must do the idea and research about the idea, and writing an article is a mechanical and repetitive task that artificial intelligence can do much better and faster. (Masters, 2025). by adding writing capabilities to the research skill, the teacher's power in analyzing events is strengthened. In other words, combining the writing skill by artificial intelligence with the research skill by the teacher creates a more comprehensive and complete understanding of the subject for the teacher and the learner. As another example, in a history lesson, a history teacher creates a perceptual and abstract reasoning self-awareness of a historical event in students, but if he uses the artificial intelligence capability of collecting audio and visual documentation of the event at the same time, the student's understanding and analysis of that event will be deeper and stronger. In other words, the parallel and horizontal integration of the artificial intelligence capability with the activity the teacher helps increase the learner's understanding and comprehension of that historical event.

4. Vertical integration

Learning has stages, each stage of which can be considered as an introduction to the next stage. For example, to learn the concept of division in mathematics, multiplication must be taught first, followed by addition and subtraction, and before that, the concept of numbers. In other words, with the synergy of stage by stage (vertical) training, division learning ultimately occurs.

For example, before a student can use artificial intelligence, it is necessary that in the previous stage and through the teacher, he/she can be familiar with the concept of calculation and algorithm, which is an abstract and cognitive matter, and in the next stage, he/she can be familiar with how to use a computer, and after that, he/she can use artificial

intelligence for research and education. This means that in the first stage, the teacher must be a role player, and then the artificial intelligence bases its activity on the teacher's work.

Conclusion: Is it possible?

It is important to note that although artificial intelligence, due to its dominance over scientific information and findings and its diversity of functions, tends to dominate teachers and has been largely successful in this regard, but, a teacher, as a human actor with emotional, moral, scientific, and rational dimensions, cannot and should not be dominated by technology in general and artificial intelligence in particular. He or she must use the same weaknesses that exist in artificial intelligence to preserve his or her agency and effectiveness in pedagogy. Maintaining the position and role of the teacher alongside the use of artificial intelligence and their compatibility is only possible by combining their multiple roles.

Devika (2025) believes that AI cannot replace the teacher, and prefers to be integrated with the teacher's work, and as a result, it can help develop and facilitate critical thinking, problem solving, and the all-round growth of the teacher. Because the practice of teaching has a psychological dimension, emotional intelligence, social intelligence, and also the skill of establishing human relationships, which AI lacks (Devika.2025, 678). Masters (2025) also believes that the role of authorship should be separated from the role of researcher, and neither replaces the other. Because the researcher must conduct the research and then, if he wishes, he can leave the writing to AI. Because AI cannot be accountable or responsible (Masters, 2025).

On the other hand, one of the important issues that we need to pay attention to in teaching and applying artificial intelligence is which model of artificial intelligence is suitable for teacher activity. In other words, artificial intelligence has different models, and these differences in models affect the quality and results of the teacher's work. One of the criteria for using good artificial intelligence models, which some of those models may lack, is the issue of explain ability. That model is for the teacher. Some models may be able to explain the and how of a subject well, but they may not be able to explain the why. This lack of explanatory power of AI is unacceptable to the teacher, and the teacher needs to know why that AI model cannot provide an explanation of the reasons for the student's work, how that AI model analyzed the students' work, and whether that analysis was based on the correct data. This weakness in AI prevents the teacher from properly trusting the validity analysis of AI performance on student work, and if trusted, the teacher's judgment about the students will be incorrect (Ruiz & Fusco, 2022). Therefore, it seems that AI is not only not a substitute for the teacher, but in some cases, it can also be a competitor and destructive of

the teacher's efforts, and the most important mission of educational policymakers is to be able to create balance, alignment, and mutual cooperation between AI and the teacher by adopting an integrated approach.

Some findings show that even though AI has the potential to significantly enhance the learning process, its ability as a complete replacement for human teachers is limited. Although the advantages of AI, namely personalized learning, automating administrative tasks, and real-time feedback are important, but issues about the emotional insensitivity of AI and its inability to form genuine teacher-student connections are still serious obstacles to full replacement by human teachers. A majority of the participants, particularly the teachers, commented that AI would be optimal as a complement to human teachers rather than a replacement.

AI abilities can aid educators by decreasing administrative burden and providing individualized learning paths, but human teachers must stick around for teaching social-emotional learning, advising, and maintaining a good and interactive classroom environment. With the limitations of AI today, the most effective way of applying AI to the educational process would be a hybrid approach that takes advantage of the strengths of both human teachers and AI. (Tin, Myae and New. .2025, 89). As AI technology evolves, its integration into education needs to have as a primary concern not only efficiency and efficacy but also students' emotional and social aspects.

Finally, eEducational AI is still in its relative infancy. Teachers have a critical role to play in the rolling out of AI in education. History is littered with examples of technological change changing roles and bringing with it a host of new roles that could not previously have been predicted. In the case of educational AI, teachers are on the front lines. (Fan, 2019). The question is how to use the new tools that AI offers to their best advantage while holding on to the things that the teacher does best, all of which revolve around her essential humanity. Her bodily presence plays an irreplaceable role in students’ capacity to establish self, well-being, and participation in society. Human beings are intrinsically social animals who thrive on shared activities and other joint experiences. To be able to thrive, the young must learn to balance care for the self with care for the society of which they are a part, even as that society must play its part in caring for them. They must learn to be at once autonomous and interdependent.

The good teacher allows her/his students to see him both as teacher and as human being, an expert in subject who still makes mistakes. The lesson sets for students are not to make mistakes but rather to acknowledge and learn from them: something that no AI can yet do. Educational AI does what it does extremely well. Educational AI enabled soft-ware has had an undeniable impact on the classroom, and the rise of teachable agents (Chase, Chin,

Oppezzo, & Schwartz, 2009.p.344) is having an impact of its own: students teaching computers as a way to teach themselves.AI is driven by algorithms.

Human beings may be as well but, if so, they are algorithms of a wholly different level of complexity. AI in its present incarnation has no will of its own or any will at all. It has no conscious capacity to reflect, no mind to speak of, no sense of self except as a data construct, no deep flexibility of behavior. Popular rumour to the contrary, computers not do only what they are programmed to do, but their capacity for 'learning' is severely bounded, and the mistakes they make have more to do with environmental circumstance than anything that could remotely be credited with creativity – let alone the creativity that a teacher brings every day to her/his classroom teaching.

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