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THE CURRENT LEARNING METHODOLOGY AND IT'S FUTURE TRENDS

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ABSTRACT

The future of any country's development the main determining factor is education. The main goal of education is for student's successful training, intellectual, moral, with appropriate physical capabilities and humaneness respect, study, work, and live independently is to develop into a capable individual. Nowadays, the development of technology changes people's lives technology while making it easier and easier of a person who wants to receive services based on progress arouses interest. It is also in education and depends. [1].

Technological innovation fundamentally transforms education, reshaping the needs and skills required for present and future workplaces. Building a future-ready education system requires consistent delivery of 21st-century curriculum and inclusive models that provide a strong foundation for lifelong adaptation and new skills development, with specialized education focusing on skills that are in demand in the real world. This disconnect between employer needs and talent pools must be addressed.

This study on where and how modern learning methods and trends are headed in today's Industry 4.0 transition is based on the predictions of a wide range of experts from the World Economic Forum's expert network and the Organization for Economic Co-operation and Development (OECD)'s Education and It was developed based on the initiative of the Future of Skills 2030 project.

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Introduction.

The goal of education is to make students successful to educate and prepare for the future. Therefore, his prediction of the future of education learner as participants (what to learn in the future), teacher (what method to prepare the best student use), admin (organize management in the future. It is directly related to what the organization will be. As Wellman said, "We are currently in the 19th century 20th-century policies with a curriculum of 21st-century learners due to its structure. Our future is bleak" [2]. So we Education for past learners it is not appropriate to continue using the method today [3].

The world is changing so rapidly that what you learn and discover today can be updated tomorrow, maybe even in a while. As the education sector adapts and evolves to this transition, it is important to note that the scientific and personal skills required in the future, as well as the use of technology, will be very different than in the past. In other words, the things we teach and the skills we teach must evolve. Furthermore, the way we teach needs to evolve to reflect the rapid digitization that is taking place in all sectors, not just education.

As rapid technological advances in globalization continue to transform civic space and the world of work, education systems are increasingly disconnected from the realities and needs of the global

economy and society. Every day, we are confronted with the fact that educational models need to adapt to children's skills to create a more accessible, integrated, and productive world.

Digital competence is important, but true digital competence means an ethical approach to technical achievements. The combination of forms of cooperation that emerge as we transition to new models poses challenges and can exacerbate existing inequalities.

To be successful in today's workplace, youth need to develop digital, science, technology, engineering, and math skills at a young age. True fluency begins with basic digital literacy and adds the ability to think critically and ethically when using and developing technology and dealing with data.

A light approach to the digital environment and technology not only ignores future graduates and their learning needs but also fails to help them control unethical behaviors.

Therefore, the ability to identify information needs and interpret information, in other words, to be aware of the importance of any information in solving problems, to develop information search methods, to find information independently, to evaluate and analyze the needs according to their importance, to create their attitude to the information, but also to the direction of their studies. How to use it, how to properly express one's opinion to others.

Therefore, to equip students with the ability to implement innovative with ethical standards in mind, education systems need to update technology curricula on relevant issues and provide opportunities for teachers to improve their skills and knowledge.

The ethical use of technology should be integrated into high schools ⟶ colleges and universities ⟶ learning throughout life, preparing people of all ages to solve the most difficult problems involved.

Soft skills have become more important in training to increase adaptability. According to a 2020 World Economic Forum report, soft skills, like creativity, leadership, and flexibility, are among the top 10 by 2025. Education in general can serve as a foundation for future self-awareness and civic identity, but as standard career trajectories are becoming more nonlinear than ever before, specialized education programs cannot remain static.

While no single skill or specialization will be able to sustain a long-term career in the future, the core soft skills of the 21st century are not only creativity, flexibility, and adaptability, but also holistic problem-solving, critical thinking, and collaboration that will make people more competitive in the labor market. Many researchers agree that it will play an important role in allowing greater adaptation to changing needs.

These skills need to be developed in primary education and then further refined in colleges and universities through lifelong learning, and by building a strong foundation of soft skills, the education system can be a catalyst for not only increasing adaptability to future workplaces but also improving the quality of life in general. Curriculum reform should be phased in within the education system to avoid excessive disruption and implementation delays associated with large-scale and irregular revisions.

Lifetime jobs and artificial intelligence.

Throughout the workplace, the teacher's child is no longer a teacher, the builder's child is no longer a builder, but your job today will be replaced by some advanced technology or intelligent system tomorrow, and you will become unemployed. In other words, if you have a dream of working in your workplace for 20-30 years after acquiring a profession or skill and traveling the world, you are considered a prehistoric person.

So, in a nutshell, when it comes to artificial intelligence as a product that replaces humans and takes your place of work:

While human intelligence is the ability to accomplish complex, systematic goals, artificial intelligence lies in the creation of non-biological intelligence, the result of which is the creation of machines that think like humans. Artificial intelligence has already coexisted with our applications and continues to develop.

For example, network, cloud, Chabot, analysis, software, memory, machine learning, etc., you hear every day, and the products created with them, make your daily work easier, and you can use them for many purposes, such as establishing relationships, solving problems, searching, collaborating, and learning. And these products may have become your normal daily usage at work.

Examples that are very simple to understand are traffic jams, self-calculating smart devices, some types of disease (health) diagnostic equipment, factory automation, and even an elaborately

designed countdown and calculation to show an athlete's skill during the Olympic Games. High-tech technologies can be mentioned.

From the artificial intelligence classification shown in Fig. 1, we can see where we are and where we intend to reach. It is only a question of time before a conscious super-artificial intelligence is created.

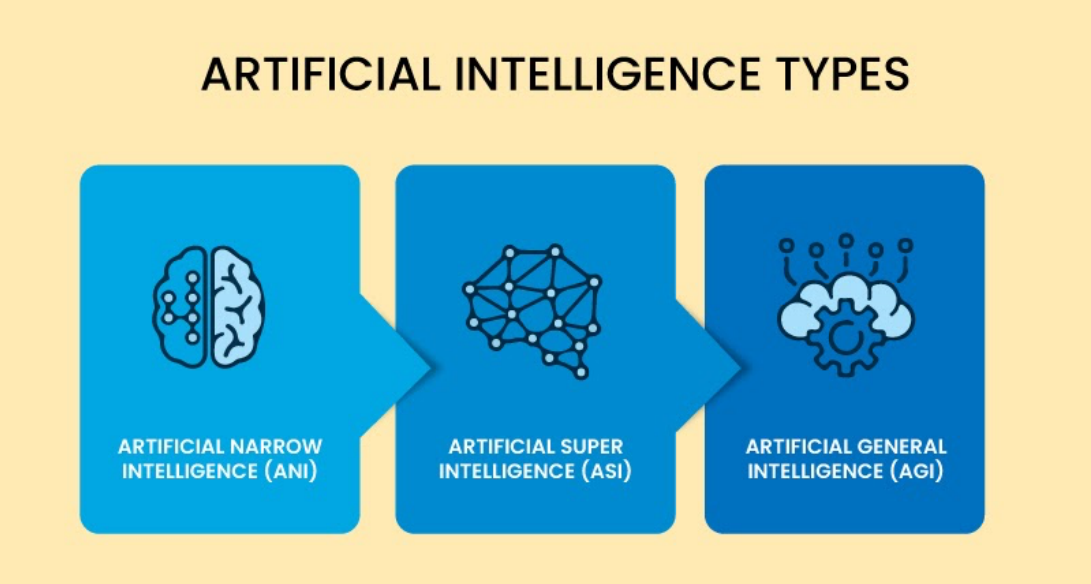

Figure 1. A type of artificial intelligence.

A person receives any information from the outside and processes it into knowledge. If the knowledge is not stored in the long-term memory, it will be re-learned, and the final goal or the appropriate result will be achieved by processing the information and reaching the appropriate criteria, and being able to fully process it in the long-term memory. In other words, we translate language learning and the learning of all science into knowledge by achieving long-term memory through frequent activities and challenges.

Similarly, the machine also learns. Just like humans, experiments learn from training data or on their own. In other words, the machine can learn with or without external control, and experts in the field believe that it can also be a form of "reinforcement learning". Let's compare the training methods of machine and human learning in the following table.

Table 1. Training methods of machine and human learning.

	Supervised training	**Unsupervised learning**	**Strength training**
1	2	3	4
Machine	Categorization, fraud detection, client loyalty, analysis, forecasting, calculation, etc.	Self-learning, clustering, dimension reduction, recommendation, big data visualization, and structure modeling.	Learn from your mistakes, control the robot and learn.

Table 1. Continuation.

1	2	3	4
Person	Identifying and classifying the information provided by traditional learning methods, making predictions through statistical processing and analysis of data... For example: The process of reinforcing theoretical knowledge through seminar assignments	Self-directed learning through active learning methods, creating models, proposing structures based on experience, analyzing results, and making qualitative judgments... For example: the student's independent task, research, and research process	Self-study or study without a teacher ... For example: The process of creating new knowledge on your own, such as learning a language, skiing, learning a program

The concept that humans are the superior species with intelligence has already disappeared. Today, when we are intensively developing artificial intelligence to replace humans and think and react like humans, the pride that only we are capable of learning and that there are jobs that cannot be done without human hands will be blown away. Machines are also able to self-learn, learn from mistakes, and improve themselves, but they are also calculating and processing faster than your brain, mind, and vision. Therefore, there is an increasing need to continually develop, accepting the awareness that there is no such thing as lifetime work.

Future trends in education and lifelong learning.

The speed of change, especially with the development of self-learning new technologies and artificial intelligence, requires us to develop knowledge and skills that will be used in the future, not the knowledge handed down from the past., blended learning methods are widely used and have a very different impact than before. In other words, we need to change the way we teach to reflect the rapidly growing digitalization not only in education, but in all fields.

Linked in's 2022 Future Jobs Forecast, predicts that 150 million new technology jobs will be created in the next five years, with more jobs being added and intelligent systems replacing humans.

On the one hand, the human labor market seems to be shrinking due to the development of artificial intelligence, but from the perspective of the "New Model" of society after the pandemic, quite a few quiet layoffs have been observed in all fields. This has happened in our education sector as well, and due to overwork and low wages due to fixed standards and models, the number of stable working personnel has decreased, and vacancies in the labor market have increased after the covid-19 pandemic.

Therefore, in the near future, attention should be paid to preparing the new generation for the labor market, creating stable jobs, strengthening the relationship between the elderly and the young, and creating favorable conditions for continuous development in the workplace, as well as how to manage this process in the future of the country so that it does not fall behind the times., intelligent management has become a very significant issue for the management of the agency.

Regarding the skills required for the workplace of the future:

- ✓ Creativity: Innovation, problem-solving, analytical thinking, …
- ✓ Technology Skills: Data Science, Computing, Programming,
- ✓ Communication skills: emotional management, cooperation, and social consciousness,

There are many types of assumptions and classifications by researchers on the list of skills required in each field. The key is to notice how much of this list of required skills include the soft skills of the future Artificial Intelligence product.

The need for us, through the education sector, to provide the skills necessary for the future labor market with the opportunity for sustainable development to the new generation, who have lost interest in studying at universities and colleges, have the right skills to create their future jobs on their own and escape from labor-intensive or time-consuming work. The following two issues (attitudes) have become very important in the direction of future education.

It includes:

- ✓ What can we teach?
- ✓ How do we teach?

Although the trend of global formal education is still based on classroom learning, transitions based on technical and technological development continue to be implemented and developed, such as e-learning, combined learning, distance learning, blended learning, etc.

The teacher is responsible for creating knowledge or imparting knowledge to students very quickly. In promoting lifelong learning, what information is taught to the learner and how it produces results is highly dependent on speed. Because it is not only foolish to keep the information of the time that is changing and distributed at a rapid pace depending on your profession and the lessons you are teaching and organizing, but you will not need to be a teacher unless you pass it on to the target group ahead of others.

So, what are the essential skills of today's teacher?

✓ Information and communication technology skills: working in an electronic environment, preparing and using content, learning how to implement smart technologies, and using electronic training systems,

✓ General and special professional knowledge and skills: development of innovative and new educational technologies, organization of multifaceted educational activities, exchange of experience, confirmation of special knowledge and skills, advanced learning, ..

✓ Teacher's general ability: continuous development of research and analysis work, joint and independent research direction, teamwork by participating in projects and programs, respect for teacher's professional ethical norms, ...

✓ General personal culture: life-long learning, ability to accept change, desire for self-development, curiosity, appropriate communication and psychological skills, sensitivity to the environment, body language, tone of voice, dress, and mental and physical health, ...

How do we teach?

✓ Teaching with trends based on more digital content and online learning.

✓ Teaching involves self-employment, teamwork, and flexible learning.

✓ Teaching through realistic visions of future workplaces, collaboration, and project-based and problem-based learning.

✓ Teach shorter learning times / According to a study by Microsoft, people's attention span is about eight seconds. It is almost equivalent to the memory of a fish. It is an indication that education needs to be spread little by little or in a short period, almost like an after-meal snack or dessert.

✓ Teaching in a more engaging way, whether in the classroom or online. Such as introducing the real environment of the future workplace with advanced technological solutions, or organizing training more realistically based on organizations and cooperative projects.

What can we teach?

✓ Since it is the 21st century, would it be extreme to see that only the soft skills needed in the future education system can be taught in order to prepare for future jobs? Or should more technology-based skills be taught, based on the statistic that 50% of those remaining in the workforce will need retraining by 2025? Not only is there a problem, but we are also facing the problem of continuous learning by anticipating the needs of future students and experts and what kind of environment awaits them in the future.

Depending on who and what needs to be based on, the answer to the question of what to teach will emerge. It includes:

✓ Critical thinking and decision-making

✓ Creative thinking, innovative ideas, innovation

✓ Cognition, exploration, flexible thinking, active learning, and learning strategies

✓ Thinking of digital writing and calculation

✓ Influencing and leading emotions and public psychology

✓ Application and control of techniques and technologies

✓ Problem-solving...etc.

These skills can be diversified into:

✓ Problem-solving

✓ Self-management

✓ Communication with the public.

✓ Technology can be classified as application and development.

✓ In this way, the skills needed in the future can be categorized and a list of skills needed for each sector can be created.

In addition, it is more important to use the above skills to influence society and define the future, to create new value, to solve complex situations and to create benefits, and to take responsibility. It is important to organize and manage teachers-educators who are proficient in non-technical skills and to organize and manage the process.

On the other hand, providing life-long education based on future educational trends, or human development, will be the basis of the future development of the nation, so the older generation should understand sooner, and we should develop ourselves by knowing what to learn and how to teach and spread it to the younger generation. The more popular it is, the younger generation will be able to acquire the skills and competencies needed in the workplace of the future by learning early learning methods and using them effectively.

To adapt to the rapid changes in society, to move to the mindset of lifelong learning, to use more methods and tools to improve skills in the direction of future education. "Knowledge mining and its guardian", but now there is a growing need to reject traditional thinking and outdated teaching methods and become an external leader of the community, not an instructor or coach.

In other words: we all need to be open and ready, even though the future is not so clear, it cannot be predicted. Children entering school in 2018-2023 will be adults in 2030, so schools today face the need to prepare them for jobs that have not yet been created, technologies that have not yet been invented, and problems that have not yet arisen, so they should not only use every opportunity to find solutions. In the future, it will be a shared responsibility.

To overcome such uncertainty, learners not only need to develop curiosity, imagination, perseverance, and self-regulation, but also need to respect and value the ideas, perspectives, and values of others, and they must overcome failure and rejection (disapproval), must pass and advance in the face of difficulties. Because their motivation goes beyond getting a good job and a high income, they will also need to care for the well-being of their friends, family, and community. Not only to create life but also to make it possible to contribute to the lives of others.

To find out how best to do this, let's begin by researching the goals of the Education and Skills Future 2030 project: what knowledge, skills, attitudes, and values not only in the field but also in countries need today's learners to thrive and shape their world? We can understand that.

Conclusion.

How can the learning system effectively develop these knowledge, skills, attitudes, and values? There is a need to focus on finding answers to two broad questions:

It, therefore, demonstrates the need to initiate translation into a pedagogy, assessment, and learning system model that is not only consistent with, and therefore feasible to implement, policy-makers, academics, school networks, teachers, and educational leaders., working with learners and social partners, the framework enables the exchange of ideas, the comparison of proven and promising practices, and the discovery of cutting-edge research to contribute to a new learning ecosystem.

Therefore, you, as a teacher, should take into account the specific characteristics of the profession you are teaching, create a suitable case room in the real and online environment, create a vision of the future workplace, and constantly update who you are teaching and what you are teaching. It will also be the foundation of your mindset for sustaining your current job or continuous development, preparing yourself for the future, and developing throughout your life.

To sum up: "Due to the rapid pace of globalization and technological development, we are all facing unprecedented social, economic, and environmental challenges, while those forces and the development of artificial intelligence provide us with countless new opportunities for human development." realizing that, if you pay close attention to everything and are ready to quickly adapt to anything new, you and I will not lose our footing in the digital age.

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