

Opinion

Home Schooling and the Future Labor Market—Is There an Adequate Educational Answer for the Extensive Changes in the Labor Market?

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Abstract: Various aspects of human existence are changing, and these changes are having a significant effect on the current and future labor market. Some occupations are estimated to be at high risk of disappearing over the next several decades, others are at medium risk, while some are at low risk. At the same time, new trades are emerging. In order to successfully cope in an era where changes occur so frequently and so rapidly, and to be a part of the current and future labor market, we need to utilize a certain set of skills and competencies that is often referred to as “21st century skills”. This opinion paper argues that homeschooling is an education path that takes into account the extensive rapid changes in the 21st century as well as in the labor market and strives to give children the skills and competencies to cope with them successfully.

Keywords: constructivist learning; future labor market; homeschooling; postmodern era; 21st century skills and competencies



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1. The 21st Century

The world around us is experiencing accelerating rates of change. In the economic domain, emerging technologies, as well as the internet, enable people to communicate in real time regardless of the distance between them. This, along with processes of globalization, gives rise to international commerce between companies as well as privately between people. Various commerce internet-based platforms make it possible for a person to sit in one place, and with a few clicks on the keyboard, purchase practically every commodity that is available on the market, regardless of where on the globe it is manufactured or sold, and the same is true for the merchants who sell their goods.

One of the most dramatic changes has to do with technology in general, and specifically with IT (Information Technology). Laptops, tablets, and smartphones are dramatically changing the way we use data, produce data, communicate with each other, teach and learn, spend our free time, and more. In this context, it is pertinent to note Paul Levinson’s concept of ‘new new media’ [1]. According to this concept, billions of individuals worldwide are currently shaping nearly every aspect of their lives through new, interactive communication platforms that possess unprecedented social influence, blur the lines between content consumption and production, and are rapidly evolving to meet user needs. Twenty years ago, in order to watch a movie, you had to actually go to the movie theater; in order to work, you had to actually go to your work place; in order to meet someone, you actually had to meet “in person”; if you wanted information, you had to go to the library, and so on. All of these human activities have dramatically changed during the last few decades.

And it seems the advancement in IT is only at its beginning. Other promising advancements in various areas are likely to bring more dramatic changes into our lives. Such areas include virtual reality and augmented reality, which are likely to change the way

we perceive reality [2–4] and 3D printers that are likely to change the way we purchase commodities, as well as the labor market [5–7].

In addition, AI (Artificial Intelligence) and robotics are going to take over various human activities and perform much better than humans, and Autonomous Vehicles are likely to change the way we move from place to place, as well as the way we transport commodities [8–10] and more.

All of these changes have a significant effect on the current and future labor market. These changes are part of a broader transformation: two hundred and fifty years ago, humanity underwent a dramatic and extensive revolution that changed the way people live. The industrial revolution, as well as the scientific revolution, brought fundamental changes in numerous aspects of human life, including, among others, changes in health and longevity, social interactions, economy, commerce, employment, travel, education, information, and more. These changes occurred during the last two centuries, a period that is commonly referred to as the “modern era”. However, approximately 50 years ago, humanity underwent yet another dramatic and extensive revolution, which once again brought changes to numerous aspects of human life. These changes, however, occurred at an unprecedented magnitude and speed! This new timeframe is commonly referred to as the period that comes after the modern era, or the postmodern era [11–14].

As delineated in these examples, various aspects of human existence are changing at a rate never seen before. For example, in the social domain, dramatic changes are taking place with regard to the status of children vs. adults. In the past, the main task of children was to learn as much as possible and prepare themselves for “real life”, while the adults actually lived the real life and were tasked with educating the children. Furthermore, in the past, children concluded their childhood and entered ‘real life’ at a younger age, which entailed exposure to more severe life conditions. For instance, they were required from an early age to engage in forms of labor that are currently illegal for minors. However, nowadays, children are actually living real life, being exposed to and involved in all aspects of life, mainly through television, the internet, social networks, and smartphones. Learning is no longer restricted to children, and adults are obligated to constantly learn in order to keep track of the rapidly changing reality [13,15].

2. The Labor Market

International reports indicate various trends in the labor market that are the consequences of the changes detailed earlier [16,17]. Some occupations are estimated to be at high risk of disappearing over the next several decades (for example, travel agents and book-keepers), others are at medium risk (drivers and bank tellers), while some are at low risk (therapists and artists). At the same time, new trades are emerging (Facebook group managers, application designers, and human–machine interface experts) [18,19].

Experts are not in agreement regarding the fate of all jobs in the near future; however, they agree regarding the characteristics of at-high-risk trades: these are occupations which require repetitive, routine activities and do not require high levels of creativity or mental flexibility [20,21].

These assessments regarding the occupations of the future stress the importance of education towards and the development of creativity and mental flexibility as major traits for future workers.

Another major characteristic of the future labor market is the tremendous speed at which new knowledge and new working techniques emerge [19,22]. This is true for most of the areas that do not require repetitive routine actions, such as engineering, medicine, programming etc. For example, medical research is advancing at an unprecedented rate, resulting in ever-growing new treatments for numerous illnesses and forcing doctors and medical staff to constantly learn in order to keep up with the medical advances and be able to offer the latest therapies to their patients.

The same is true, of course, for various areas of engineering, where crucial innovations are frequently introduced.

In order to successfully cope in an era where changes occur so frequently and so rapidly, we need to utilize a certain set of skills and competencies (Habets et al., 2020) [23]. This set of skills and competencies is often referred to as “21st century skills”. Some of the prominent 21st century skills include self-regulation, self-guidance, and the ability to learn constantly and independently [24].

These skills or competencies are important, not only for everyone who is living in the 21st century, but also for everyone who wishes to be a part of the working force in the near future. If, 50 years ago, it was sufficient to undergo formal work training for a worker to be able to perform their tasks at work for a prolonged period, today, the knowledge and competencies the worker acquired during this formal training becomes, within a few years, obsolete; without constant training and life-long learning, as well as flexibility, workers will not be able to maintain their jobs [25,26].

What other skills and competencies are required to successfully cope with the challenges of the 21st century?

3. Skills and Competencies in the 21st Century

In the last few decades, many researchers and practitioners have been struggling with a crucial question: “What set of skills and competencies are required in order to function successfully in the 21st century?”. As expected, there are numerous answers to this question, and we have addressed this aspect previously in articles and books (e.g., Neuman & Guterman, 2023) [27], and a meta-analysis of research on this subject indicated that there are the following 12 major areas of skills and competencies [28]:

- Information management—the ability to search, choose, evaluate, organize, and produce information.
- Critical thinking—the ability to conduct informed decision-making processes using rational logical thinking as well as available knowledge.
- Creativity—producing original ideas that have value [29].
- Problem solving—the ability to understand situations that are defined as problems, come up with a suitable solution, and implement this solution.
- Collaboration—the ability to cooperate with other people, lead teams, as well as be a part of a team and deal with disagreements and conflicts.
- Communication—the ability to receive information as well as deliver it in a comprehensible manner.
- Technical aptitude—the ability to use technology in order to achieve one’s goals.
- Self-direction—the ability to set goals, devise plans, implement them, and assess the degree to which these goals were achieved, as well as learn from this experience for future actions.
- Lifelong learning—the ability to learn new information, skills, and competencies throughout life.
- Ethical awareness—the ability to conduct oneself in an ethical and legal manner.
- Cultural awareness—the ability to understand and accept others.
- Flexibility—the ability to adjust one’s thinking and actions to the ever-changing reality.

A person who will acquire this set of skills and competencies will be able to successfully function in the postmodern reality; set ambitious, yet achievable goals and strive to achieve them; learn and develop from every experience; lead a fruitful and enjoyable social life; make informed decisions; and succeed in the future labor market [30].

As things stand today, the majority of responsibility for the preparation of young people for the 21st century lies with the education system, and the extent to which this process is carried out successfully is of utmost importance to the future success of children as well as the future success of society.

With this aim, children spend many hours a week for 12 years in compulsory education systems (and to an even greater extent in additional educational settings), but do they really emerge from the education systems prepared for life in the 21st century?

4. Criticism of the Education System

Alongside the transition from the modern to the postmodern era, and for some decades now, there has been growing dissatisfaction from various stakeholders in the education systems. One of the main claims concerns the inability of these systems to adapt themselves to the ever-changing reality [31–33]. The result of this inability is a system that is run under modern premises, working towards achieving modern goals, and doing so with modern tools and modern pedagogy [34,35], therefore preparing children for a modern world, while, in fact, as detailed earlier, we live in a completely different, postmodern world [27,36].

In order for children to succeed in this world, they have to acquire a different set of skills and competencies. Teaching them to prepare them for a modern world and giving them a set of skills and competencies suited for the modern world might actually harm them when they strive to successfully live in a postmodern world.

The criticism directed at the education system can be divided into the following three main categories:

Criticism towards the system's goals—mainly that teaching knowledge as defined in a curriculum determined by the educational authorities is not relevant in times where ever-changing knowledge is accessible for everyone, everywhere, and at all times.

Criticism towards the system's pedagogy—mainly that the frontal, “ex-cathedra” way of teaching, in which everyone arrives at the same time in the same place, where teachers teach and children learn the same curriculum in the same way, only to be tested later in the same way, is not relevant in a world where IT enables us to dispense with the unity of time and place, enabling learning at any time and in any place, and where the main traits that children need to acquire are the ability to learn on their own, as well as critical thinking, creativity and flexibility, and above all, self-direction [37,38].

Criticism toward the results of the educational process—mainly that, as children graduate from school, they are poorly prepared to successfully cope with today's life challenges, and particularly with today's labor market, not to mention the future labor market [37,38].

This dissatisfaction caused various stakeholders to seek alternatives to the formal education system. There are many alternatives, such as unique schools, as well as unique school networks. One of the most interesting alternatives that has been emerging over the last several decades is home schooling.

5. Home Schooling and the Future Labor Market

Home schooling is a practice in which children of all ages do not attend school and learn at home, as a result of their parents' decision [39,40]. In the last few decades, there has been a steady increase in the number of children that are being homeschooled in various Western countries.

The two leading countries in the number of children that are being homeschooled are the U.S., with more than 2 million children, and the U.K., with nearly 80,000 [41–43].

There are many sub-categories of homeschooling [44]; however, probably one of the most cited is the division between structured and unstructured homeschooling, which was first described by Van Galen [45]. Van Galen distinguished between parents who homeschooled due to religious ideology and those who homeschooled due to dissatisfaction with the school system and named these two groups, respectively, ideology and pedagogy homeschooling. Ideology homeschooling is characterized by a structured nature, while pedagogical homeschooling is characterized by an unstructured nature.

This division has since been refined and broadened, and today, scholars are referring to a continuum between structured and unstructured homeschooling (for example [46,47]).

Recently, research investigating the way parents defined their “way” of homeschooling suggested that the degree of structure to homeschooling could actually be divided into two different aspects: the degree to which the context of the homeschooling is structured and

the degree to which the process of homeschooling is structured. The first aspect has to do with the educational goals, and the second with the actual teaching and learning [48].

It is interesting to note that pedagogical reasons are amongst the main reasons parents cite for opting to homeschool. Homeschooling parents claim to be able to give their children a better education and better preparation for their adult life than schools can [49–51]. Obviously, this is merely a claim made by parents who hold this perception, as those who do not share it would not choose homeschooling. However, there is evidence supporting this view. For instance, it has been found that homeschooled children tend to possess broader general knowledge [52] and fewer emotional issues [52].

Parents who homeschool their children because of pedagogical reasons are, in fact, expressing their distrust towards the education system and its ability to prepare their children adequately for life in the 21st century. Many of these parents who opt to educate their children at home do so in accordance with constructivist teaching and learning ideology, which focuses on the learner as the center of the learning process, thus inviting them to take a major part in this process, i.e., setting the goals of the process, devising the strategies for the learning process, and assessing the outcomes of this process [40,49].

Constructivist learning cultivates the ability of the child to set their own goals and plan ways to achieve these goals, execute those plans, evaluate this process and its outcomes, and use this evaluation to learn from their experience for future activities. Such a learning process relies fundamentally on self-learning, self-regulation, and self-guidance [53–55]. Constructivist learning emphasizes the social construction of knowledge and understanding through interaction with others. In this context, it is important to note that research indicates many homeschooled children learn within various settings where they encounter diverse social and cultural settings [27]. It is therefore clear that parents who choose to homeschool their children for pedagogical reasons, and do it in light of the constructivist learning paradigm, are actually educating their children in accordance with 21st century skills and competencies, which are crucial for life in the 21st century, and more so for the labor market of the 21st century.

Thus, one can look at this type of homeschooling as education that takes into account the extensive rapid changes in the labor market and strives to give children the skills and competencies to cope with them successfully. In some countries, homeschooled children are required to participate in exams identical to those of their school-going peers (for example, in Austria). In such cases, it is interesting to examine whether the mode of learning differs from countries where such requirements do not exist. To our knowledge, no study has been published yet that examines the relationship between homeschooling practices and the obligation for such exams and the impact of these factors on children's skills.

Understanding the connection between pedagogical homeschooling and 21st century skills and competencies is important for the following several reasons:

It might serve as a theoretical backdrop for several areas of research into homeschooling. Today, research on reasons for choosing to homeschool, methods of teaching and learning in homeschooling, and outcomes of homeschooling is usually conducted separately. Understanding the connection of each of these areas of research to broader trends in the postmodern society might serve to combine these areas of research.

In addition, much of the research on homeschooling is conducted separately from the research on broader aspects, such as research on the current and future labor market. Trying to examine homeschooling from this perspective might help to strengthen our understanding of homeschooling, as well as of the future labor market.

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