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## DESCHOOLING: AN ULTIMATE WEAPON DURING COVID 19 PANDEMIC

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### Abstract

Online education has brought a positive impact in the lives of students and working professionals. It has given an opportunity to take up additional courses along with their studies or job as per their convenience. In the era of digitalization scope of online education increase even more and will be beneficial for students, professionals and also institutions. A comparative study between classroom study and online study watch carried out. The study was done by examining the findings recorded in books and journals on the applicability online learning to students. In conclusion, online learning is beneficial to the students, tutors and the institution offering these courses' would therefore recommend that online learning be implemented on all learning institutions and research on how to improve this learning process should be carried out.

**Keywords:** Deschooling, Weapon, Covid 19, Pandemic

### 1. INTRODUCTION

In the last 20 years, the internet has grown from being nearly non existence into the largest, most accessible database of information ever created. It has changed the way people communicate shop, socialize, do business and think about knowledge and learning. Much more than just a new tourist on distance learning, online schooling is changing the face of traditional classrooms and making education more accessible than ever before. An online class is a course conducted over the internet. They are generally conducted through a learning management system, in which students can view their course, syllabus and academic progress, as well as communicate with fellow students and their course instructor. Online classes are generally self-paced, allowing for greater flexibility in completing course work. Some examples of online courses are MOOCs or massive open online courses, as produced by organisations such as Courser. Online education is a form of education where students use their home computers through the internet. For many non-traditional students, among them all those who want to continue working full time of raising families, online graduations and courses have become popular in the past decade. Often online graduation and course programmes, some of which are conducted using digital technologies, are provided via the online learning portal of the host University. Online classroom gives educators an opportunity to reach students who may not be able to enroll in a traditional classroom course and supports students who need to work on their own schedule and at their own pace. The quantity of distance learning and online degree used in most disciplines is large and increasing rapidly schools and institutions that offer online learning are also increasing in number. Students pursuing degrees via the online approach must be selected to ensure that their coursework is done through a respected and credentialed institution. At formal institutions like colleges and universities, online learning via learning management system (LMS) data allows constructors to create and add content, assignment and activities that students can access with an internet connection on a computer or mobile device. This is not the only form of online learning, but it is the most utilized method to receive a formal education and allowed instructors and students to create a learning community for their classes. At Thomas University we use Canvas for our online programs. Although this system plays a major role with online learning, what's more important are the instructional strategies use to

help you meet and exceed the course goals and objectives. In other words, Canvas is a tool for instructors to use to help you learn and pass the class. Learning how to use Canvas which important to your success as an online student, but equally important is knowing how to study, learn, pay attention and participate in online class as you would in a physical classroom.

## 2. OBJECTIVES

To avoid offline classes and accept online classes.

To update the knowledge through multiple sources.

To make up to date with technology.

To avoid Formal learning.

## 3. LITERATURE REVIEW

Despite its popularity among students and instructors, online learning has not been without opposition. In an attempt to establish contemporary guidelines for online learning, this review of literature investigates the (a) learning styles and demographics of the online learner; (b) ethical issues inherent in online instruction; and (c) techniques for online instruction through the analysis of effective online strategies. In addition, a discussion of recommendations, rooted in the research presented here, is provided in order that future instructors may implement best practices to meet the needs of online learners.

### 3.1 Demographics of Online Learners

To meet the needs of online learners, it is first important to understand who is enrolled in these courses. In a survey of almost 120,000 students from 132 4-year institutions and community colleges, Ruffalo Noel Levitz was able to craft a profile of the modern online learner. Females are more likely to enroll in online courses than males (2015-16 Research Report National Online Learners Satisfaction and Priorities Report, 2016; Arbaugh, 2000; Coldwell, Craig, Paterson, & Mustard, 2008; Gunn, McSorran, Macleod, & French, 2003; Latanich, Nonis & Hudson, 2001). Caucasian learners are the primary ethnicity enrolled at both types of institutions, and Hispanics are vastly underrepresented in both (2015-16 Research Report National Online Learners Satisfaction and Priorities Report, 2016). The majority of online learners work full time (2015- 16 Research Report National Online Learners Satisfaction and Priorities Report, 2016; Colorado, & Eberle, 2010; Latanich, Nonis & Hudson, 2001). At 4-year institutions, students between the ages of 25-44 were more likely to enroll in online courses, with the range of 45+ having the largest number of enrolled students. At community college, students between the ages of 24-44 were more likely to enroll in online classes, with the highest range being younger than 24 (2015-16 Research Report National Online Learners Satisfaction and Priorities Report, 2016). In contrast to other studies conducted in earlier years (Colorado & Eberle 2010; Latanich, Nonis, and Hudson, 2001) that averaged students who enrolled in online courses between 25-35, these demographics show that online learners are actually getting older. It is unclear how much impact an online learner's age has on their academic success; some believe that older students perform better (Coldwell, et al., 2008), while others do not believe that age has any significant relation to a student's performance (Colorado & Eberle, 2010).

### 3.2 Digital Natives and Digital Immigrants.

To further understand the topic of the differences between online and traditional learners, it is helpful to look at how the research categorizes the Net Generation in opposition to Baby Boomers. Marc Prensky is responsible for the distinction between digital natives and digital immigrants. In 2001, Prensky defined the digital native as a student who always had access to technology and the language to discuss it. In contrast, digital immigrants are the members of the population who were not born with technology, but adopted it as a part of their daily life. Prensky does not just argue that modern students are different because they grew up with technology, but

he draws on 20th century brain research in neuroplasticity and malleability to show that digital natives are actually psychologically different than their digital immigrant counterparts (2001). Supporters of Prensky's ideas suggest that digital natives, whom also might go by the name of New Millennium learners, actually prefer to receive information at a rapid rate and expect to multitask (Pedro, 2007).

Iryna Pentina and Concha Neely (2007), drawing on the research of Latanich, Nonis & Hudson (2001), support the argument that there is no significant difference in the demographics of online learners and traditional learners. Many papers have come to argue that the terms "native" and "immigrant" are overly simplistic and can result in negative connotations towards educators and students (Bayne & Ross 2007; Selwyn, 2009). The assumption that digital natives' heightened access to technology means that they have different learning styles and enhanced skills is a simplistic overview of an entire generation (Bennett, Maton & Kervin, 2008). All learners in all generations have different learning styles that need to be met with various methods. Further, to assert that institutions and teachers must drastically change their practices to meet the needs of the digital natives assumes that Prensky has proven these students need major modifications to tried and true learning theories. At the hype of changing education to meet the needs of digital natives might lie the true agenda: changing education to meet the needs of the educational market (Bayne & Ross, 2007). This is especially concerning considering the American teacher population is largely included in the digital immigrant generation (Bennett, Maton & Kervin, 2008).

### 3.3 Learner's Varying Cognitive Schemes

If digital natives truly learn differently than digital immigrants, it is utterly imperative to the nature of education that researchers discover how digital natives are influenced by the past theories of learning. At the fundamental base of these theories, lies constructivist theory: focusing primarily on how a person creates knowledge out of the experiences and resources surrounding them. What we know of today as constructivist theory was influenced by theorists as far back as the 1800s. Jean Piaget further developed this theory to include schema, the brain structure that develops when a human develops knowledge through their environment and experiences (Piaget, 1970). Cognitive schema can be divided into three types of cognitive load: intrinsic, extraneous, and germane. With a limited amount of working memory, ineffective online courses have students accumulate more extraneous load than germane. However, this pattern could be corrected by having the "working memory capacity freed by [a] reduction in extraneous cognitive load [that is then] allocated to germane cognitive load" (Pass, Renkl & Sweller, 2003, p.2). More importantly, "extraneous and germane load are under the direct control of instructional designers," and, therefore, the power to create effective online courses lies in the design of the course itself (Paas, Tuovinen, Tabbers & Van Gerven, 2003, p.65). One way to create opportunities for students to increase their germane cognitive load is through authentic learning. Authentic learning is the perfect way to increase this because it allows students to create new schema, while practicing old concepts and exploring new ones (Lombardi, 2007). Swan (2005) argues that the traditional model of constructivism, while relevant, is not fully applicable to an online learning environment: many courses are prefabricated and do not take into consideration the needs of the learners; it is unclear what information and resources best support students on the learning journey; courses involve a high number of assessments with low feedback; community is an option, but not always utilized. Instead, course designers should consider best practices that allow them to understand how best to represent, conceptualize, and use knowledge construction to meet the needs of the students in online courses (Swan, 2005).

### 3.4 Online Experience for Socialization

Student participation has long been an integral component of successful classes. How participation in online course affects the learning that takes place requires much more research. However, several studies have begun the preliminary research, which allows educators to make certain assumptions about the link between social presence and learning in online courses. A study by Coldwell, et al. (2008) revealed that students who achieved higher grades in online courses participated significantly more than those students who achieved lower grades. So and Brush (2008) found that the students who participated believed that they had a higher level of social presence in the class. This social presence had a positive impact on students' motivation, and therefore, students were more satisfied with their online course (So & Brush, 2008). Collaboration cannot be void of social interaction, and therefore, it is an essential component of cognition (Garrison, Anderson, & Archer, 1999). Online discussion becomes a much more important piece of course design, then, if it has the ability to increase social presence, course satisfaction, and cognition. A student's level of satisfaction for the education they are receiving is an important indicator in a student's overall learning experience. Evidence collected from 2010-

2015, revealed that the satisfaction of online courses among community college participants has gone down in recent years (2015-16 Research Report National Online Learners Satisfaction and Priorities Report, 2016). This data highlighted that while many students in both 4-year institutions and community colleges feel that course quality is important, both sets of students were unsatisfied with the quality of instruction given - 22% gap in 4-year institutions; 26% gap in community college. Students in 4 year institutions indicate a higher level of course satisfaction than students at community colleges (2015-16 Research Report National Online Learners Satisfaction and Priorities Report, 2016), Instructors can help ensure that students are satisfied with the course by supporting their students and providing multiple opportunities for student-teacher and student-student interaction.

### 3.5 Communication Skills

Online learners are expected to be proficient in communication and writing skills (Dabbagh, 2007). However, Yar, Asmuni, & Silong (2008) found that interpersonal communication did not rank in the top 10 basic competencies that students found important in online tutors. This presents a major gap in the understanding of how communication affects courses and the students in them: educators find communication important, but may not utilize it, while students may not find communication important, but are dissatisfied when there is no social presence. Dabbagh (2007) draws on research as far back as Anderson and Garrison's 1998 discussion of the developments of communication in technology, in which educational communication is defined as "reciprocal (i.e., two-way), consensual (i.e., voluntary), and collaborative (i.e., shared control)" (Garrison, Anderson, & Archer, 1998, p.98). As the distance between instructor and student increases, the need for effective communication becomes greater (Anderson & Garrison, 1998). In the extensive review of literature on the differences in communication of males and females, Merchant (2012) summarizes one of the most well-known books on this issue, *Men are from Mars, Women are from Venus: A Practical Guide for Improving Communication and Getting What You Want in a Relationship*. The largest difference in the way that men and women communicate is that a male's communication is goal orientated, while a female's communication is relationship orientated (Gray, 1992 as cited in Merchant, 2012). Women tend to spend more time engaged in online courses than men. Men find it more difficult to interact over technology (Arbaugh, 2000). Females have been found to perform higher than males in online courses (Coldwell, et al, 2008). This finding the correlation between gender and academic performance - has been challenged by Arbaugh (2008), who found no difference. Consequently, this provides valuable information for instructors that can develop discussion opportunities that both achieve a goal and build relationships in order to meet the needs of all learners. We can also see that as the literature presents social presence to be a factor of success in online courses, females may find themselves more apt to enroll in online courses because they find themselves successful in this type of learning environment.

### 3.6 Hardware Software Connectivity

The popular term "digital divide" began to be studied as early as the 1990s (Hoffman & Novack, 1998). As a result of the first studies on this issue, it was revealed that Caucasian individuals were more likely to have access to a home computer and use the internet than African Americans. Further, this study discovered other important correlations: higher income correlates to a higher likelihood the person will have a computer (regardless of race), and African American students are more likely to access the web, except when they do not have a home computer - Caucasian students with a home computer then become the group more likely to access the web (Hoffman & Novack, 1998). Fast forward 10 years, and the number of computers available to each classroom in America's public schools are still inadequate to effectively support instruction. When comparing urban to rural schools, the two are likely to have the same number of computers, but the software, technical support, and condition of the equipment in urban schools is much less adequate than rural schools (National Education Association, 2008). In response to the unequal acquisition of technology in schools across the county, legislation such as No Child Left Behind, Every Student Succeeds, E-rate and the National Education Technology Plan were developed. The goal of these national initiatives are to close the digital divide by making computers and Internet accessible to the entire country, and to encourage the use of technology as a way to personalize learning (National Education Technology Plan Office of Educational Technology, 2016). When students get to college, access to technology is questioned much less, but is it still an issue? The research on how and if the digital divide affects higher education is remarkably limited. One study of college freshman in Spain, revealed that the majority of the students studied had the necessary technological awareness to operate information and communications technology, while some did not have the understanding or the ability due to lack of Internet access (Ricoy, Feliz & Couto, 2013). Even if students enter college with access to more technology, it is possible that students are still entering higher education with a lack of digital literacy.

### 3.7 Rigor of Online Courses

There is no single definition for academic rigor. Rigor could be defined, as by Winston, Vahala, Nichols, Gillis, Wintrow & Rome (1994), as An environment that is intellectually challenging and demanding. Students perceive a norm of excellence and responsibility, which is expressed through high, but realistic, evaluation standards. The class is seen as fast paced, and there are expectations that students will invest considerable energy and time in completing assignments (Graham & Essex, 2001). Nelson (2003) defines what it is got: hard courses that purge weaker students; distancing of the instructor through lecture, so as not to "baby" students; grade inflation due to lowered standards. Instructors report that rigor is important in online courses, and the methods they use to create rigor in online courses is similar to the methods used in traditional courses (Graham & Essex, 2001). The most important of the methods used to create rigor is the amount of support given to the student by the instructor, that is why difficult course content does not automatically equal a rigorous course if the instructor is providing a heightened level of support to the student (Graham & Essex, 2001). Robinson & Hullinger (2008) found that all five levels of academic difficulty were found to be prevalent in online courses: memorization, analysis, synthesis, making judgements, and application. Contrary to what might be assumed, studies find that "the availability of technology serves to increase the opportunities to stimulate higher order levels of thinking" (Robinson & Hullinger, 2008, p. 103), and that long term retention of knowledge is significant, almost 70% (Naidr, Adla, Janda, Feberova, Kasal, Hladikova, 2004). Authentic learning, or real-world problem solving, can be supported through the vast amount of technological advances developed in the recent past, but also through access to data, virtual support and networking, and simulations (Lombardi, 2007). Although memorization has long been thought to be an ineffective way of teaching and learning (DiCarlo, 2009), the process of memorization is not inherently negative. It is important that students have automatic recall of certain facts to better aid them in learning more complex ideas.

### 3.8 Academic Dishonesty

Students enrolled in online courses are not as inherently aware of the course etiquette and expectations. It is the role of the instructor to explicitly inform all students of the procedures concerning assessments (Christie, 2003). Despite that, some academic dishonesty is bound to occur, and the instructor is also responsible for mitigating its effects. It is unclear whether there is any significant difference in the amount of academic dishonesty in traditional classes versus online classes (McNabb & Olmstead, 2009). What is clear is that, like in traditional courses, steps should and can be taken to protect the integrity of the course (McGee, 2013). Making expectations clear, creating assessments with one-answer questions for practice, while using open-ended questions to gauge mastery, timing the tests, and paying attention to start and submission times; utilizing an online plagiarism checker, and comparing student answers are all ways to reduce academic dishonesty in any course (Best Practice Strategies to Promote Academic Integrity in Online Education Version 2.0, 2009, McGee, 2013). Greater reliability and validity of assessments will decrease the trend of academic dishonesty (Gikand, Morrow & Davis, 2011). With the many assessment options available through online courses, instructors should be aware of how certain assessments promote or decrease academic integrity. Assessments that rely heavily on lower order thinking questions allow students to memorize test questions and answers easily. These questions are also more likely to be answered using a common search engine or the class textbook (McGee, 2013). Further, lower order thinking may not accurately depict what content a student has actually mastered. Open-ended, short answer, or essay questions require that students use higher order thinking skills, but might cause issues with plagiarism. In this case, it might be worthwhile to use a human or webcam proctor or set a time limit for the test (Christie, 2003). Assessments that challenge students, allow for peer collaboration, and are in the realm of student interest are more likely to foster honest submissions (McNabb & Olmstead, 2009),

### 3.9 Instructor Biases

Due to the unique nature of online courses, it is clear why it is more difficult to identify instructor bias than in a traditional course. In a traditional course, an instructor might use distinct visual or verbal cues that identify their explicit or implicit bias. This is more difficult to detect in an online course, but it does not suggest that bias in online courses does not exist (Conway & Bethune, 2015). In fact, more than half of college students report that they have been the victim of bias, which mostly occurs in the classroom, and have often cited instructors as the source of the bias (Boysen, Vogel, Cope, & Hubbard, 2009). Regardless, "college instructors are responsible for maintaining and promoting an atmosphere of respect for diversity in increasingly diverse classrooms, and that responsibility includes effective management of incidents of bias..." (Boysen, et al., 2009, p.219-220). The most difficult type of instructor bias to detect and correct is implicit bias. As defined by Greenwald and Banji (1995) implicit bias is "introspectively unidentified (or inaccurately identified) traces of past experience that mediate favorable or unfavorable feeling, thought, or action toward social object" (p.8).

This microaggression can be seen in many forms such as excluding a student, making judgements on the basis of race, name, or appearance, and denying the existence of prejudice (Boysen, et al., 2009). Caucasian instructors have been shown to show bias towards African American names more so than instructors of other ethnicities. The profile of the instructor that was most likely to show bias towards African American names were white males over the age of 56 with a Master's degree, that had been an online instructor for over ten years (Conway Bethune, 2015). For a student, bias can be emotionally damaging, having profound long-term effects, and causing extreme conflict in an otherwise neutral situation (Boysen, et al., 2009).

### 3.10 Meeting a Learner's Cognitive Needs

In the 1980s, Lev Vygotsky developed the definition for the zone of proximal development: "It is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1980, p.86). For this theory to be effective in online courses, instructors should analyze the objectives of the course and choose the tools best suited to meet those objectives. The instructor must gauge each student's ability to use the tool, so as to know how much support to give the student (Hall, 2007). Learners must be able to achieve mastery with these tools in a non-graded scenario before moving on. The purpose of providing leveled support is to achieve mastery of the objectives (Anderson & Garrison, 1998). Learners must not only engage with the instructor and other students, but learners must be engaged with the content the course offers. Instructors play a huge role in how they can present the content to students in a way that will foster active engagement instead of passive compliance.

### 3.11 Safety and Legal Use

Much of the information surrounding social networking is negative (Butler, 2012), but there are many informal lessons that can take place on the Internet (Tynes, 2007), and through online courses. Social networking sites and video games allow students to practice their communication and multitasking skills, while allowing them to configure their self-identity (Tynes, 2007). Furthermore, just like building a community in an online course, the interaction on social networking sites can have positive academic and social side effects (Cain, 2008). A larger focus should be put on teaching students how to use these websites responsibly, to diminish the harm that could occur (Butler, 2012; Tynes, 2007). When students take online courses, the length at which they sit and work on a computer could be potentially damaging to their long-term health. Correlations between working on a computer and musculoskeletal discomfort, particularly in the neck and shoulders, has been found (Marcus, Gerr, Monteilh, & Kleinbaum, 2002). When students begin taking computer classes, normally at a young age, they are not taught proper posture. Even so, young students have been found to not have acceptable posture when seated in front of a computer even after receiving education on what proper posture is. Many posture issues also arise from the desk setup that is used in schools or at home. The optimal ergonomic design for a student sitting at a computer would include an adjustable desk and chair, correct placement of the mouse, and a text holder (Dockrell, Earle, & Gavin, 2010). The amount of time that students are required to spend on the Internet and computer is also concerning for the potential to lead to Internet addiction. It is imperative that learners are mentally stable and mature enough to both complete their required assignments, while limiting their access to a healthy amount (Anderson & Garrison, 1998). Instructors can combat this through the use of active learning. By giving students, real world problems to investigate and solve, coupled with resources available in multiple forms (digital print, paper print, audio, or video), instructors can minimize the amount of time students sit and stare at a computer.

Legal issues of online courses are seen most commonly in the form of copyright infringement. The nature of online courses can cause issues for institutions attempting to obtain licenses of content for their instructors. Some companies want to charge a significant increase in licenses for online courses because of their potential user reach. Other issues include interpretation of the laws concerning Fair Use. In the Copyright Act, specific exemptions are given to materials distributed for traditional teaching activities. The literature gets more regulated when distributing materials online. This could be remedied by requiring students to purchase textbooks, but specifically for MOOCs, where the goal is to offer free education, requiring students to purchase anything is not recommended. Otherwise, instructors could ensure that they assign readings offered by open access textbook companies or journals (Butler, 2012).

### 3.12 Diversity of Learners

As a design framework, Universal Design is "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Mace, 1997, p.1). To ensure that schools do not unintentionally deny any students access to any courses, schools need to pay close attention to student data. Districts and universities must ensure that they are able to provide content to all types of students in all types of unique situations. Some unique options to consider are transcripts or tags for videos and graphics and course design and layout for students who need a special mouse or screen (Rose & Blomeyer, 2007). Access to content might require that the institution or the instructor modify certain copyrighted content. The Chafee Amendment allows for some material to be copied or modified meeting the needs to learners with disabilities (Butler, 2012). While during the 1990s it was largely accepted that women were at a disadvantage regarding technology, the gap between men and women in the area of technology has just about become nonexistent (Gunn, Mc Sorran , Macleod, & French, 2003). However, still today, some concerns do exist. Women are more likely to cite they must share their main computer. Women tend to fit in their education around their family duties, while men have a more structured schedule (Gunn, McSorran, Macleod, & French, 2003). Culturally, there appears to be no gap in access across students of varying cultures (Coldwell, et al, 2008), although the report from Ruffalo Noel Levitz showed a disconcerting amount of diversity among online learners (2015-2016 Research Report National Online Learners Satisfaction and Priorities Report, 2016)

### 3.13 Individual Assignments and Group Assignments

In any classroom, there is a time and place for individual and group assignments. Instructors must be able to individually assess each student's mastery, but the effects of collaborating in group assignments cannot be denied. Both types of assignments should be used as an equal representation of content or objective mastery. Cooperative learning "refers to instructional methods whereby students are encouraged or required to work together on learning tasks" (Lehtinen, Hakkarainen, Lipponen, Rahikainen & Muukkonen, 1999, p.3). Encouraging cooperation among students and creating opportunities for active learning are two of the seven principles for effective teaching (Graham, Cagiltay, Lim, Craner & Duffy, 2001). Student participation needs to be focused and evaluated, so that students have a clear direction and purpose for participating with their peers. Active learning, in groups or individually, gives students the opportunity to produce or present real-world evaluations based on common criteria. Students often learn just as much from each other as from the content itself (Graham, et al, 2001). Technology is a useful tool that can assist learners in strengthening social interaction and following the collaborative process (Lehtinen, et al, 1999). Although individual assignments are important and have their merit, the overuse of individual assignments in online courses can cause students to feel a low sense of community, which can lead to low satisfaction of the course (Ouzis, 2006). Designed correctly, individual assignments that are part of a larger group assignment will ensure that students have a higher sense of community, while allowing the instructor to assess their individual mastery. This model, known as collaborative, interactive learning, creates opportunity for both individual and group development on one project. Students are individually accountable for their work, while also committed to helping their group members succeed (Moallem, 2003).

### 3.14 Communication

Synchronous and asynchronous communications are both useful in adding social presence to an online course. Synchronous communication is real-time communication over text, instant message, or video conferencing. Asynchronous communications have a much larger time delay and include examples such as blogs, wikis, bulletin boards, etc. It has already been established that socialization is a key part of successful online courses (see online experience for socialization vs. cognitive learning). Course design is a large factor in ensuring that students receive effective socialization. When creating opportunities for asynchronous communication, instructors should create clear expectations and timelines for students. Discussion questions should be relevant to the course content and the students should find the topics interesting. Rotating group discussion is another great way to ensure that students do not get bored providing feedback (Kelly, 2010). Asynchronous communication allows for deeper interpretation and reflection upon the conversation (Anderson & Garrison, 1998; Garrison, Anderson, & Archer, 1999). Although we might see more women enrolled in online courses (Merchant, 2012), women can feel like men are dominating asynchronous communication (Meyers, Bennett & Lysaght, 2004). Synchronous communication can help provide a more equalized discussion platform for students. To ensure that students feel comfortable using a synchronous communication platform, like instant messaging, instructors should explain how to set it up and how it will be utilized in the course. Providing different meeting days and times will provide flexibility for all students. If students cannot, or do not want to

use that type of communication, a chat log of the group's discussion can be helpful to anyone who was not present (Kelly, 2010).

### 3.15 Instructional Approaches

Project based and problem based learning are two similar, yet distinct, types of learning that should be considered when creating an online course. These two learning approaches are similar in that they both involve collaboration and individual work. Where they differ is that project based learning is usually more aligned with the realities of the work force and take a longer amount of time to complete, ending with a physical example of knowledge gained. Problem based learning is more focused on what knowledge was learned during the course of solving the problem (Perrenet, Bouhuijs & Smits, 2000). Project based learning in the online classroom has the opportunity to increase social presence of all students by allowing students to work cooperatively to achieve the same goal. Instructors can implement project based learning with the use of "case studies, role-playing, debate, and threaded discussion on issues...to help establish a sense of community and engagement in the learning process" (Lou & Kim MacGregor, 20004, p.421). In addition to grouping students and having them work collaboratively, instructors should have groups collaborate with one another. Inter-group collaboration and project review has a positive impact on the knowledge gained, collaboration skills, and overall project performance (Lou & Kim MacGregor, 20004). Direct instruction is a favored teaching strategy used in traditional classrooms. At the center of direct instruction, a teacher would complete the following: set-induction, lecture (or other "teaching" of material), modeling of steps to complete objective, guided practice with students, assess students' independent practice. To incorporate these same steps of direct instruction in an online course, an instructor would utilize multiple interactive discussion formats and allow for reflection from the students. During the steps of guided and independent practice, students participate in multiple group and individual activities and discussion. The sharing of student work online is a large component of the guided practice (Yeh, 2009). Game-based learning and gamification has become a huge educational development in the last few years. Game-based learning refers to using video games to enhance instruction in a class. Gamification refers to the process of inserting common gaming traits into a class, such as leaderboards, student missions, etc. (Eames, 2014). Gamification appears to be more successful at higher levels of education (Huizenga, Admiraal, Akkerman & Dam, 2009). In secondary education, although students did not display any additional motivation to learn, students who learned history using a game acquired a deeper knowledge of the subject. Some students can become quite distracted while participating in game-based learning, but games that require more tasks proved to be more enjoyable for students overall (Huizenga, Admiraal, Akkerman & Dam, 2009). Students who utilized game based learning in a higher education course achieved at least the same level of knowledge as their counterparts who received traditional instruction, but maybe even more importantly, students were motivated to play the game repeatedly (Ebner & Holzinger, 2007).

### 3.16 Implementation of Assessments

Assessments are an integral part of any classroom setting. It is important to plan assessments that gauge mastery of the objectives set for the course. Formative and summative assessments should both be used to measure course or unit objectives. Formative assessments are integrated throughout the course to provide students feedback, correct misconceptions, and allow opportunities for reteaching. Summative assessments are used for the purpose of assigning a grade to student work at the end of a unit or course. Effective online formative assessments hinge largely on a large amount of quality feedback. Quality formative assessments will consist of continuous assessments from the student coupled with continuous feedback from the teacher, which will drive interaction between students and teacher and among the students themselves (Gikandi, Morrow & Davis, 2011). Using formative assessments in this manner has the potential to increase students' achievement on summative assessments. Consistent quizzing enhances content recall, while feedback requires that the student create more connections and schema, creating an ideal scenario for longer retention (McDaniel, Wildman & Anderson, 2011). However, writing valid and reliable summative assessments is increasingly difficult. One course might have 50 objectives; some specific, some general. Mastery of those objectives through mainly summative assessments are left to the instructors, which is open to human error and interpretation. It is virtually impossible to ensure that a summative assessment across students, course sections, and semesters will be consistent (Knight, 2002).

Self and peer assessments in online classrooms have multiple positive attributes. The response to self-assessment is overwhelmingly positive. Even students who participated in self (and peer) assessments commented that they gained a better understanding of grading and a greater empathy for their instructors. Although some did mention that the work was difficult or they were unsure of how to score themselves or their peers, no inherently negative themes were collected from the students that participated in the study (Hanrahan



& Isaacs, 2001). For self-assessment to be effective, it is crucial that students are coached on how to complete a quality assessment and for instructors to give them feedback based on the assessment (Ross, 2006). Students should be coached on how to offer peer-assessment, as well. Utilizing peer-assessments in an online course allows for students to see their work as an instructor might, and it can help the instructor cut down on grading time. On the other hand, peer-assessments can cause several problems within the course: often students might be left waiting for their peer to turn in work and are unable to leave complete feedback in a timely manner, and some students may be personally offended by negative comments from a peer (Kulkarni, et al., 2015). Overall, however, the more that students are engaged in learner-learner and learner-instructor activities, the greater quality of learning will take place (Anderson & Garrison, 1998).

The quality of education in online courses is very important to students (2015-16 Research Report National Online Learners Satisfaction and Priorities Report, 2016), and through the use of evaluations, instructors and departments are able to address the needs of the course to ensure that the quality of education is being upheld (Graham & Essex, 2001). However, it is important to design reliable, valid course evaluations that will offer true and helpful feedback. 2003, paper based evaluations were still being used exponentially more than online evaluations in face-to-face classes (Hoffman, 2003). Most online classes never meet, making online evaluations for those classes essential. The "Seven Principles for Good Practice in Undergraduate Education" are often cited as being used to evaluate courses (Graham, Cagiltay, Lim, Craner & Duffy, 2001), but there is a discrepancy between Graham, et al.'s opinion and what actual evaluations reveal. A review of course evaluations exposed that the majority of evaluations measure how students perceived courses equity, feasibility, and its applicability to the student. What are grossly missing from these evaluations are questions about best practices in teaching, learning, and online courses. Online course evaluations should be constructed in order that they measure the learning and teaching that took place inside that online classroom. Aptly designed course evaluations can be a strong tool for instructors to improve their teaching, but it should not be the only assessment that determines whether an instructor or course has or has not been successful (Achtmeier, Morris & Finnegan, 2003).

#### 4.COVID 19 PANDEMIC

Online learning and education for all during and after Covid-19 pandemic. Since the COVID-19 pandemic has disrupted the normal lifestyle of people across the globe, the virtual world has come to the rescue. Amongst many institutions schools have also shifted their base to virtual platforms to conduct classes online. Consequently, catering to the needs of all stages of education from pre-primary to university level, online education has emerged as an alternative to ordinary face to face classes. Accordingly, various stakeholders such as government and private organizations are trying their best to assist each other by sprucing up their existing online platforms, apps and providing training to teachers to use these apps and platforms to the optimum level. Moreover, efforts are being made by both government and non-government organisations and each company to support the school system to make a smooth transition to the virtual world. Up skilling and motivating teachers, organising counselling sessions for stakeholders such as teachers, parents and students are some of the important measures taken by the administration in the recent past. Making a continuous effort to provide customised teaching-learning material suitable for online classes is another way of facilitating the schooling of children. The Central government has recently launched the PM e-VIDYA platform, with 12 new DTH channels, one for each class to reach out to all stratus of society. These efforts have proved beneficial to a sizable chunk of the school-going population.

However, this alternative medium has also brought to the fore some stark persistent realities of Indian society characterised by social inequalities in terms of availability of resources, essential to access these online classes/platforms. These digital initiatives are perpetuating the hegemony of elite schools over the education system, resulting in the digital divide between rural and urban and rich and poor. This digital divide is also affecting the work and role of the government as well as non-government organisations across states as they are facing challenges due to the recent migration of millions of labourers to their native places. Both the central as well as state governments will have to make a road map not only for labourers' employment but for the education of their children too. Given the great difference in the infrastructure across states in terms of internet and allied facilities it appears to be a huge task. In addition, the non-government organisations that support the marginalised sections of the society in terms of health, education and livelihood and also collaborate with governments are facing financial crunch as most of the funds are being diverted to tackle the pandemic.

Students and teachers also have their own struggles while accessing these online platforms. Due to financial constraints, students are not able to access the internet, and are devoid of electronic gadgets and laptop, phone

or computer or even radio and TV. Those students who have facilities to attend to online classes face barriers in terms of unavailability of physical space, which is equally applicable to teachers who are supposed to conduct online classes from their home. There are also social barriers such as discrimination against girls as they are expected to do household chores instead of attending online classes in the mornings.

COVID-19 pandemic, also known as the corona virus pandemic, is an ongoing global pandemic of corona virus disease 2019 (COVID-19) caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). The virus was first identified in December 2019 in Wuhan, China. The World Health Organization declared a Public Health Emergency of International Concern regarding COVID-19 on 30 January 2020, and later declared a pandemic on 11 March 2020. As of 25 April 2021, more than 146 million cases have been confirmed, with more than 3.1 million deaths attributed to COVID-19, making it one of the deadliest pandemics in history.

Symptoms of COVID-19 are highly variable, ranging from none to life-threateningly severe. Transmission of COVID-19 occurs mainly when an infected person is in close contact with another person. Small droplets containing the virus leave an infected person as they breathe, cough, sneeze, or speak and enter another person via their mouth, nose, or eyes. Airborne transmission is also sometimes possible, as smaller infected droplets can linger in the air for minutes to hours within enclosed spaces that have inadequate ventilation. Less commonly, the virus may spread via contaminated surfaces. People remain contagious for up to 20 days, and can spread the virus even if they do not develop any symptoms.

Recommended preventive measures include social distancing, wearing face masks in public, ventilation and air-filtering, hand washing, covering one's mouth when sneezing or coughing, disinfecting surfaces, and monitoring and self-isolation for people exposed or symptomatic. Several vaccines have been developed and widely distributed since December 2020. Current treatments focus on addressing symptoms, but work is underway to develop therapeutic drugs that inhibit the virus. Authorities worldwide have responded by implementing travel restrictions, lockdowns/quarantines, workplace hazard controls, and business closures. Many places have also worked to increase testing capacity and trace contacts of the infected. The pandemic has resulted in significant global social and economic disruption, including the largest global recession since the Great Depression. It has led to widespread supply shortages exacerbated by panic buying, agricultural disruption and food shortages, and decreased emissions of pollutants and greenhouse gases. Numerous educational institutions and public areas have been partially or fully closed, and many events have been cancelled or postponed. Misinformation has circulated through social media and mass media. The pandemic has raised issues of racial and geographic discrimination, health equity, and the balance between public health imperatives and individual rights. The corona virus COVID-19 pandemic is the defining global health crisis of our time and the greatest challenge we have faced since World War Two. Since its emergence in Asia in 2019, the virus has spread to every continent except Antarctica. We have now reached the tragic milestone of more than two million deaths, and the human family is suffering under an almost intolerable burden of loss. "The climbing death toll is staggering, and we must work together to slow the spread of this virus." - UNDP Administrator Achim Steiner.

But the pandemic is much more than a health crisis; it's also an unprecedented socio-economic crisis. Stressing every one of the countries it touches; it has the potential to create devastating social, economic and political effects that will leave deep and longstanding scars. UNDP is the technical lead in the UN's socio-economic recovery, alongside the health response, led by WHO, and the Global Humanitarian Response Plan, and working under the leadership of the UN Resident Co-ordinators. Every day, people are losing jobs and income, with no way of knowing when normality will return. Small island nations, heavily dependent on tourism, have empty hotels and deserted beaches. The International Labour Organization estimates that 400 million jobs could be lost.

## 5. DESCHOOLING

Implicitly or explicitly, educators have always recognized their position in and against dominant social forces commonly described as Gramsci's (1992) superstructures: political power relationships, institutions, culture and the state. At the one hand, education is supposed to liberate people from ignorance and poverty; at the other hand, educational 'liberation' is brought by middle-class teachers who, often unwillingly and/or unconsciously, inculcate dominant value systems and reproduce traditional social inequalities. This power dynamic creates a vicious circle on all levels of educational praxis, including but not limited to the nature of teacher employment. Working within the current educational systems, educators are intrinsic parts of educational Ideological State Apparatuses (Althusser, 2008) which contribute to increasing social inequality. (To make things worse, they are also blamed more than ever for any perceived shortcomings in 'the system'.) Those who resign might feel better with themselves, but the next person in line will step into their places and perpetuate the system. Adapted from

collective work of the small group of British scholars called London Edinburgh Weekend Return Group (Mitchell et al, 1979), the concept in and against superstructures succinctly summarizes Illich's argument against schooling. However, while the majority of radical educators seek solution in opposition from this unfavourable position (Mitchell et al., 1979), Illich asserts that all such attempts are deemed a failure and looks for radically different approaches.

Illich's argument departs from his wide critique of institutionalization of the contemporary society. "Medical treatment is mistaken for health care, social work for the improvement of community life, police protection for safety, military poise for national security, the rat race for productive work' (Illich, 1971, p. 3). Institutionalized society is dialectically intertwined with institutionalized education. 'The pupil is thereby "schooled" to confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new' (Illich, 1971, p. 3). Institutionalized educational systems are necessarily dehumanized. Hence, institutionalized society reduces people to producers and consumers. In the context of learning it could be argued that this is not always bad, as a form of the relationship between producers and consumers naturally underpins learning (beyond schooling). What makes institutionalized educational systems dehumanized; however, are the static models of 'delivering' education and often perverse ways they feed into capital. Following the line of argument very similar to Frankfurt School critiques of technologies exposed in Herbert Marcuse's *One-dimensional man* (1964) and Martin Heidegger's *Only a God can save us* interview (1981), Illich shows that stability of institutionalized society is based on constant economic growth. Deeply rooted in the spirit of 1960s and 1970s, he finally concludes that such a model inevitably leads towards ecological destruction of our planet. Width and depth of Illich's argument represent one of his biggest contributions to science and one of the biggest challenges for those who would like to understand his work. According to Kahn and Kellner-One need not commit to Illich's indictment of education, however, to realize that one of his enduring contributions is the manner in which he perceived the deep ideological relationships between modern institutions like schooling, the church, factory production, medicine, the media and transportation systems as aspects of unchecked industrial society. (Kahn & Kellner, 2007, p. 438) In the last chapter of *Deschooling Society*, former Jesuit Illich develops his ecological argument using the ancient myth of Prometheus and Epimetheus. 'Prometheus is usually thought to mean "foresight" (...) He tricked the gods out of their monopoly of fire, taught men to use it in the forging of iron, became the god of technologists, and wound up in iron chains' (Illich, 1971, pp. 48-49). Epimetheus is his exact opposite. He values hope above expectations, loves people more than products, and loves 'the earth on which each can meet the other' (Illich, 1971, p. 49). Promethean man is all around us: in industry, commerce, education. Even most humanistic radical educational politics, such as Freire's, often reflect Promethean sentiment (Kahn & Kellner, 2007, pp. 437-438). Illich's Epimethean politics, however, seeks exactly the opposite in 'those who collaborate with their Promethean brother in the lighting of the fire and the shaping of iron, but who do so to enhance their ability to tend and care and wait upon the other' (Illich, 1971, p. 49). Based on dichotomy between Promethean and Epimethean approaches, Illich develops profound critique of our technological society in his next book *Tools for Conviviality* (1973). Certainly, the two critiques are dialectically connected: non-institutional large- scale educational infrastructure to replace institutional schooling must necessarily be convivial.

## 6. NEED OF ONLINE CLASSES

Nowadays, it becomes easy for students to learn the bulk of things it's all thanks to the internet. While students face an obstacle in traditional education then online classes will help them to learn something new and gain knowledge. Even the students from the boarding schools are able to take this benefit. E- learning is the effective way for students to study. Online learning has many advantages that help students to learn. Online education has seen rapid progress in recent times. Online classes can students, when they are unable to go to take face to face classes. Through online classes, students can get the same quality of education sitting their homes. Education have numerous proposes and online classes help to fulfil them. Online education can be a recognized education as it offers new opportunities for traditional learning. Online classes are convenient and flexible.

### 6.1 Flexible Schedule

Without going outside, students can learn each and every subject through online classes, even sitting at home. Online classes save the time and money of travelling. Online classes offer the flexible schedule that permits students to study at their own convenient. Students can gain knowledge only by watching the videos of any subjects at any time.

## 6.2 Everyone can Gain Education

Through online classes, each and every student can gain an education. When the students are not able to go outside due to some serious reasons, then they can easily study from the online classes. In such kind of cases, online classes help to eliminate the barriers and borders under students can easily gain knowledge, even sitting at home. Online classes offer high quality education to student at their own place. Online learning is a great solution for students to study effectively.

## 6.3 Keep up with Changing Trends

In every field it is essential to keep up with changing trends. Whether it is the educational field or any other field, changes are required everywhere, in today's world, each and every person want digital life. The online classes can help students to learn things visually, and because of this, they can easily remember the things that they have learnt. Online classes are more beneficial than traditional education in some manner.

## 6.4 Choice of Syllabus

In traditional education students have a limited syllabus, whereas, in online education has a vast choice of the syllabus. Through online classes, student can learn more things out of their syllabus, which become very useful for their future. Online platforms provide unlimited paths, and online education has a wide range of choices. Students can study at anything that they want to study at any level.

## 6.5 Learn whatever You Want

Online classes permit students to learn anything or whatever they want. When students have their own choice, they can learn more efficiently. Through online classes, students can learn the subject in which they are interested. In online classes, students have numerous choices so that they can choose anything of their choice.

## 6.6 Lower in Cost

Online classes are available at a lower cost. Through online learning, students can learn the same thing as in the face to face course but at a low cost. Most of the online courses are free, and some are paid but only have a little amount of annual fee. After paying the annual fees, it permits students to access every single course accessible on that platform. Traditional education is also important for students, but as compare to this, online classes are most cost- efficient.

## 6.7 Learn at Your Swiftness

Through online classes, students can learn at their own swiftness, and being able to learn your own swiftness is a delight in itself. Each and every student learns at a different swiftness and understands things differently. Online classes are generally open year-round and for meet the students to learn at their own swiftness.

## 6.8 Improve Technical Skills

Online learning also improves the technical skills of students. The most of the online courses need the development of new computer skills because of this; students can learn to handle different learning management systems and programs.

## 6.9 Efficiency

Online learning offers teachers and efficient way to deliver lessons to students. Online learning is number of tools. Such as videos, PDFs, Podcasts and teachers can use all these tools as part of their lesson plans. By extending the lesson plan beyond traditional textbook to include online resources, teachers are able to become more efficient educators.

## 6.10 Accessibility of Time and Place

Another advantage of online education is that it allows students to attend classes from any location of their choice it also allows school to reach out to a more extensive network of students. Instead of being restricted by geographical boundaries. Additional, online lectures can be recorded, archived and shared for future reference. This allows students to Access the learning material at time of their comfort. Thus online learning offers students the accessibility of time and place in education.

### 6.11 Affordability

Another advantage of online learning is reduced financial costs. Online education is for more affordable as compared to physical learning. This is because online learning eliminates the cost points of student transformation. student's meals and most importantly real estate. Additionally, all the course of study materials available online, thus creates a paperless learning environment which is more affordable, While also being beneficial to the environment.

### 6.12 Improved Student Attendance

Since online classes can be taken from home or location of choice, there are fewer chances of students missing out on lesson.

### 6.13 Suits a Variety of Learning Styles

Every student has a different learning journey and different learning style. Some students are visual learners, while some student prefer to learners, while some students prefer to learn through audio. Similarly some students are solo learners who get distracted by large group. The online learning system, with its range of options and resources can be personalized in many ways it is the best way to create a perfect learning environment suited to the needs of each student.

## 7. DISADVANTAGES

### 7.1 Inability to Focus on Screen

For many students, one of the biggest challenges of online learning is the struggle with focusing on the screen for long period of time with online learning. There is also a greater chance for students to be easily distracted by social media or other sites. Therefore it is imperative for the teachers to keep their online classes crisp, engaging and interactive to help students stay focused on the lesson.

### 7.2 Technology Issue

Another key channel of online classes is internet connectivity. While internet penetration has grown in leaps and bounds over the past few years, in smaller cities and towns, a consistent connection with decent speed is a problem without a consistent internet connection for students or teachers; there can be a lack of continuity in learning for the child. This is detrimental to the education process.

### 7.3 Sense of Isolation

Students can learn a lot from being in the company of their peers. However, in an online class, there are minimal physical interactions between students and teachers. This often results in sense isolation for these students. In this situation it is imperative that the school allow for other forms of communication between the student, peers, and teachers. This can include online messages, E-mails and video conferencing that will allow for face to face interaction and reduce the sense of isolation.

### 7.4 Teacher Training

Online learning requires teachers to have a basic understanding of using digital forms of learning. However, this is not the case always very often, teachers have a very basic understanding of technology sometimes and they don't even have the necessary research and tools to conducts online classes. To combat this, it is important for schools to invest in training teachers with the latest technology updates. So that they can conduct their online classes seamlessly.

### 7.5 Manage Screen Time

Many parents concerned about the health hazard of having their children spend so many hours staying at a screen. This increase in screen time is one of the biggest concerns and disadvantages of online learning. Sometimes students also develop bad posture and other physical problems due to staying bunched in front of a screen. A good solution to this would to give the students plenty of breaks form the screen to refresh their mind and their body.

## 8. CONCLUSION

Online education has brought a positive impact in the lives of students and working professionals. It has given an opportunity to take up additional courses along with their studies or job as per their convenience. Online education has also helped the faculty in the institutions to ask students to study some part of syllabus online which do not require much of classroom instructions. So the online study helps the faculty to save time in which they can interact with the students more. The quality of education has improved by online courses and even it has become easy for students to refer the content as per their leisure. In the era of digitalization scope of online education increase even more and will be beneficial for students, professionals and also institutions. A comparative study between classroom study and online study watch carried out. The study was done by examining the findings recorded in books and journals on the applicability online learning to students. Online learning has many benefits as compared to the conventional learning in the classroom environment. Though online learning had several challenges such as lack of feedback from students and a lack of the proper technology to effectively conduct online learning, these limitations can be overcome by upgrading the e-Learning systems and the use of online discussion forums and new web based software. In conclusion, online learning is beneficial to the students, tutors and the institution offering these courses' would therefore recommend that online learning be implemented on all learning institutions and research on how to improve this learning process should be carried out.

## REFERENCES

- [1] Althusser, L. (2008). *On ideology*. London: Verso.
- [2] Atasay, E. (2013). Ivan Illich and the study of everyday life. *The International Journal of Illich Studies*, 3 (1), 57-78.
- [3] Baudrillard, J. (2008). *The perfect crime*. London: Verso,
- [4] Bourdieu, P. (2007). *Outline of a theory of practice*. Cambridge, MA: University Press.
- [5] Bradley, D. A. (2005). The divergent anarcho-utopian discourses of the open source software movement. *Canadian Journal of Communication*, 30(4), 585- 611.
- [6] Castells, M. (2001). *The internet galaxy: Reflections on the internet, business, and society*. Oxford: Oxford University Press. De Leon, A. P. (2006). The time for action is now! Anarchist theory, critical pedagogy, and radical possibilities. *Journal for Critical Education Policy Studies*, 4(2), 72-94.
- [7] Feenberg, A. (2002). *Transforming technology: A critical theory revisited*. New York: Oxford University Press. Freire, P. (1972). *Pedagogy of the oppressed*. Harmondsworth: Penguin Education Specials.
- [8] Gibson, P. (1990). Kropotkin, mutual aid and selfish genes. *The Raven - Anarchist Quarterly*, 4(4), 364-371.
- [9] Goldman, E. (1911). *Anarchism and other essays*. New York: Mother Earth Publishing Association.
- [10] Gordon, U. (2009). Anarchism and the politics of technology. *Working USA*, 12(3), 489-503.
- [11] Grego, D. (2013). Thirteen ways of looking at Ivan Illich. *The International Journal of Illich Studies*, 3 (1), 79-95.
- [12] Harrison, I. (2004). *The book of inventions*. Washington, DC: National Geographic.
- [13] Hart, I. (2001). Deschooling and the Web: Ivan Illich 30 years on. *Education Media International*, 38 (2-3), 69-76.
- [14] Hern, M. (1998). *Deschooling our lives*. Philadelphia, PA: New Society.
- [15] Illich, I. (1971). *Deschooling society*. London: Marion Boyars.
- [16] Jandric, P. (2010). Wikipedia and education: Anarchist perspectives and virtual practices. *Journal for Critical Education Policy Studies*, 8(2), 48-73.

- [17] Jandric, P. (2011). In and against radical monopoly: Critical education and information and communication technologies. *Problems of Education in the 21st Century*, 35(1), 70-84.
- [18] Jandric', P., & Boras, D. (2012). *Critical e-learning: Struggle for power and meaning in the network society*. Zagreb: FF Press & The Polytechnic of Zagreb. Kahn, R., & Kellner, D. (2007). Paulo Freire and Ivan Illich: Technology, politics and the reconstruction of education. *Policy Futures in Education*, 5(4), 431-448.
- [19] Sinclair, C., & Macleod, H. (2015). Literally virtual: The reality of the online. In P. Jandric & D. Boras (Eds.), *Critical learning in digital networks*. New York: Springer.
- [20] Stallman, R. M. (2002). *Free software, free society: Selected essays of Richard M. Stallman*. Boston, MA: Free Software Foundation.
- [21] Standing, G. (2011). *The precariat: The new dangerous class*. London: Bloomsbury Academic.
- [22] Suissa, J. (2001). Anarchism, utopias and philosophy of education. *Journal of Philosophy of Education*, 35(4), 627-646.
- [23] Suissa, J. (2006). *Anarchism and education a philosophical perspective*. London: Routledge.

