



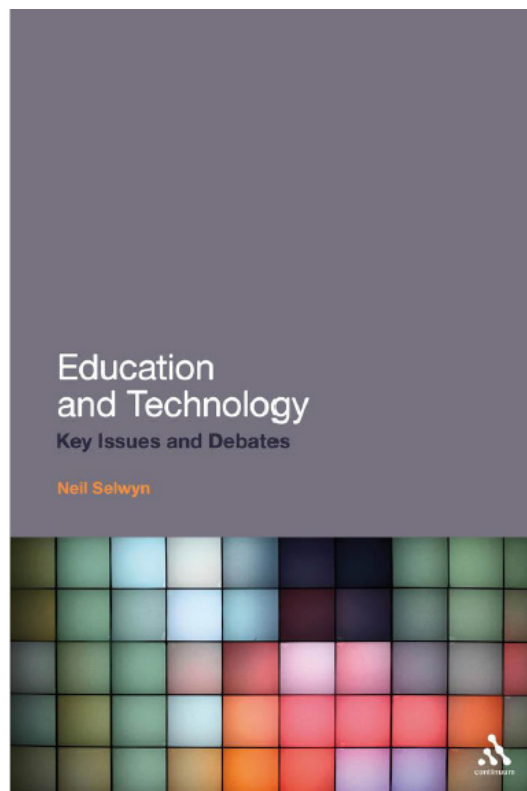
## Book Review

# The Urgency of Philosophical and Sociological Perspective on Educational Technology

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In Indonesian context educational technology has been developed for years as a field of studies and profession (Subkhan, 2016). In many teacher colleges such as Universitas Negeri Jakarta (UNJ), Universitas Negeri Semarang (UNNES), Universitas Negeri Malang (UM) and Universitas Negeri Surabaya (Unesa) there were educational technology study programs, but until now the development of educational technology seems entrapped on its methodological and practical tendency. For instances how educational technology's curricula—especially for bachelor degree—should meet with market demand, how practically and professionally facilitating learning process within and outside the schooling system, and how to strengthen the profession of educational technologist (see Haryono, Budisantoso, Subkhan, & Utanto, 2018).

According to my previous research only few educational technology study programs gave attention to some philosophical, cultural and sociological sides of the educational technology. Educational technology study program in UNNES is one of them who consistently gave student with such discourse. For instances there were certain subjects, i.e. the sociological foundation of educational technology, contemporary paradigm of educational technology, philosophy of education, and epistemology (Nurussaadah & Subkhan, 2018). If we look at some basic references for educational technology student—we can easily find out these stuff throughout the bookshop and lesson plan official document in each

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study program—most of them are methodological and practical oriented. Of course, all of these books also have theoretical sections, but only as a foundation to explain the methodological and practical side of educational technology.

Moreover, only few educational technology's scholars publish certain works and bring some philosophical and sociological discourse (see Miarso, 2007; Subkhan, 2011, 2016). For the sake of educational technology as a field of studies this condition will bring this field to nowhere, because the development of knowledge need more philosophical, epistemological and even ideological and sociological discourse than merely focusing on the methodological and practical dimension of the field.

Based on this critical issue, Selwyn's book, entitled "Education and Technology" is important. This book has a strong philosophical and sociological discourse on educational technology reflected from its chapters. Almost of the chapter's title are in question style, i.e. chapter 1 "What do we mean by education and technology?" chapter 2 "Does technology inevitably change education?" chapter 3 "What can history tell us about education and technology?" chapter 4 "Does technology improve learning?" chapter 5 "Does technology make education fairer?" chapter 6 "Will technology displace teacher?" chapter 7 "Will technology displace the school?" and chapter 8 "Education and technology—looking to the future".

#### PHILOSOPHICAL AND SOCIOLOGICAL DISCOURSE

Unlike many definitions of educational technology from the Association for Educational Communication and Technology (AECT) (see Januszewski & Molenda [Eds.], 2008; Seels & Richey, 1994), Selwyn brings more philosophical and sociological discourse by proposing a depth understanding about education and technology. By referring many scholars such as Nye, Volti, Teich, Mackenzie, Wajcman, Goyder, Wessels, Lievrouw and Livingstone he proposes that technology has long history and wider sociological and philosophical construct. Technology have at least two dimensions, social and technical; technology also have three distinct and interconnected aspects, as artefact, activities and practices, and context (Selwyn, 2011a, pp. 6–10).

What has been Selwyn done through this book is a rare topic in our Indonesian discourse on educational technology. Several mainstream

references, for examples from Prawiradilaga (2012) and Miarso (2007) always refer to AECT in order to explain the basic concept and definition of educational technology. I already state on my previous work that the domination of AECT in the development of educational technology as a field of studies and profession in Indonesia is inevitably, because the pioneer of this field such as Miarso and Suparman also learn from many prominent educational technologist figures in AECT circle when they study abroad (Subkhan, 2016). That is why the mainstream views and discourse of educational technology in many universities always refer to AECT, including how to develop the profession and its curriculum.

Based on his rigorous and critical analysis Selwyn asking many questions in which in Indonesian context remain undiscussable critically. When we often see technology as panacea to all of educational problems in the 21st century, Selwyn posing a very basic question: does technology improve learning? Maybe we could easily answer it that of course technology will improve learning quality. But Selwyn said that this question has no straightforward answer. The belief about the psychological basis of learning and cognition, also the different epistemological basis of reality and knowledge make the answer is not that easy. He said

There is no 'one-size-fits-all' solution for applying technology to learning. Digital technology will not automatically support and enhance learning process unless some thought is given to the 'goodness of fit' between the learning task and the learning technology. For example, the social dynamic of technology-based instruction described by socio-cultural perspectives is clearly less suited to some forms of learning than others. Why is it, for instance, that the classroom-based lecture and seminar continue to be popular modes of learning at many levels of education? One possible reason could be that it is often difficult to capture the vital social elements of face-to-face learning environments that are mediated through technology. (Selwyn, 2011a, p. 88)

Moreover, Selwyn also brings critical discussion about the relation of technology and social justice in education in chapter 5. This discussion is valuable especially in Indonesian context, because many of us belief that the integration of technology into education could make education fairer and accessible to all of the people. By providing many facilities and technological devices such as electricity and WiFi, cheap notebook and smartphone, we thought that many

disadvantages community could access educational services through their gadget. Having good access to digital technology increase individuals' control over their education need, many of us also experiencing more democratic notion when we see many learning resources arose outside the campus wall.

By referring to van Dijk (2005) Selwyn (2011a, pp. 101-102) said that the presence of digital technology still depend on some factors, i.e. temporal resources (e.g. time to spend on different activities in life), material resources above and beyond digital technology devices and services (e.g. income and all kinds of property), mental resources (e.g. knowledge, general social and technical skills above and beyond specific IT skills, social resources (e.g. social network positions and relationships, such as those in the workplace, home or community, and cultural resources (e.g. cultural assets, such as status and forms of qualifications).

This criticism is worthy enough for our education system in Indonesia, because many teacher and student didn't have appropriate digital literacy. Even many of them entrapped in such plagiarism behavior. So, without appropriate knowledge, skills and ethical consideration the presence of digital technology into education makes bad habits such as cheating and plagiarism getting worse. In the wider context, the Indonesia's presidential election in 2014 and 2019 have shown how many netizens immersed and entrapped on political and religious hatred, hoaxes and conflict. So, this fact has shown to us that the massive use of digital technology in the form of social media for instance, but with lack of ethical and sociological consideration, bring negative human behavior into its extreme form.

In this case Selwyn (2011a, p. 113) said that digital technologies often seem to fit around and shaped by the existing patterns of people's live. In education context Selwyn stated that

In this way, the acquisition of a laptop computer is likely to reinforce—rather than alter—what people do in their lives. This tendency to augment what has gone before suggests that digital technologies in themselves will often do little to disrupt or radically alter pre-existing inequalities. From this perspective, it is perhaps not surprising that researchers often find that access to digital technology 'fails' to make people any more likely to participate in education and (re-)engage with learning. It could be concluded that digital technology, at best, increase educational activity among tho-

se who were already learners rather than widening participation to those who had previously not taken part in formal or informal learning. (Selwyn, 2011a, p. 113)

What has been said by Selwyn is a reminder to all of education scholars that sociological factors around the implementation and using of technology—including digital technology—in education context is important. We should consider what Selwyn (2011a, p. 114) said that social problem often requires social solution rather than 'technical fixes'. So, the domination of technopositivism perspective held by most of Indonesian scholars and the government—i.e. Ministry of Education and Culture, Ministry of Research, Technology, and Higher Education—should be criticize by giving more philosophical, sociological, or even political perspectives on the integration of technology into education. At this point, the works of Selwyn is useful and should be the main list of references.

In chapter 6 and 7 Selwyn address important question, will technology displace teachers and schools? It was a common question raised by many of us who concern on the integration technology into education in this era, because to many learning resources and educational services emerge throughout world wide web (www). Search engines such as Google, Yahoo, and also YouTube channels, lists of online academic journals, many types of Wikis, became the part of the student daily activities to find some information to complete their academic tasks. Many of us also join in some massive open online course (MOOC) services to get more knowledge, skills, competencies or certificate. The presence of Udemy, Schoology, Coursera, Khand Academy, Edmodo, EdX, as well as the fast development of Open University in many countries remind us that there were many new education institutions arise along the emergence of digital technology, especially the internet.

When such corporation like Google and Ernst & Young no longer consider the degree or diploma to hire their new staff, many of us predict that it is enough to learn from many resources outside the schooling system. It means that the emergence of new education institutions would disrupt the existing and dominance education institution such as schools and campuses—including the teachers and lecturers. The rise of personalizing learning and curriculum approach along with the emergence of smartphone, tablet and notebook lead the learning process become more personal, because each person could choo-

se their own learning resources and even, they could formulate their own personal curriculum. This tendency sounds like what had been provoke by Ivan Illich (1971) about the need of "Deschooling society". Selwyn (2011a, p. 155-156) also propose to us the important of re-reading Illich's work in this recent context and era.

But, Selwyn (2011a, p. 122) stated that even the most 'anti-school' of technologist would sometimes recognize the continued value of the teachers' role in the learning process. Selwyn elucidate that the emergence of technology into educational practices urging the teachers to change their role within the classroom and school. When the concept of classroom has changed and include the virtual world as a classroom too, teacher should change their mind, habit and role on how to manage the class and respond their student in different ways using synchronous and asynchronous modes of communication. In short, teacher should act more as a facilitator than merely as an instructor of the learning process. By referring to Seymour Papert, Selwyn (2011a, p. 123) said that

[...] this role of guide or facilitator is markedly different from the traditional notion of the didactic teacher or lecturer. For example, the notion of the teacher-as-facilitator implies teaching and learning as a more collective endeavor, with teacher and students addressing and solving problems and engaging in open-ended enquiry together. At best, teacher is required to take an 'active facilitation' approach characterized by a high degree of participation and involvement in assisting groups of learners. While some may welcome these changes, teachers certainly face a change in terms of what they do, and status of what it is they are doing.

Moreover, the inevitable emergence of new education institution in the form of YouTube channels, Facebook or WhatsApp groups, or many MOOC services do not really displace the school or campus, but it enriches the types of education institution and multiply our choice to choose the most appropriate educational services that meet with our need as a person or a member of society. In Indonesian context, the emergence of alternative education movement such as homeschooling, learning community and school-based on nature since the early 2000s get more benefit from this tendency, because they have many learning resources in the internet. If the school system still stuck on some old-fashioned learning process, i.e. still laid on mono learning resources come from the teacher,

school and the education office, they will leave behind by the alternative education movement who has made use of many learning resources from the internet.

And it could happen as has been illustrated by Selwyn (2011a, p. 151) that many school buildings are architecturally still unsuitable for widespread networked and wireless technology use. School curricula also still widely as being too rigid and entrenched in 'pre-information age' ways of thinking. School assessment procedures also still concerned with the development and assessment of scholastic aptitude rather than 'softer' or creative skills. This criticism is also suitable with our existing learning practice and culture's problems within our school and campus, because most of the students, teachers and lecturers still hold conservative mindset and habits in which inhibit the development of personal intellectual and social growth as well as it inhibits the institutional academic evolvement.

#### THE CHALLENGES AND FUTURE OF EDUCATIONAL TECHNOLOGY

Selwyn is a brilliant scholar who concern on sociological perspectives of the relation of education and technology. Previously he works at Institute of Education, London Knowledge Lab. Now he is a distinguished research professor in the Faculty of Education, Monash University, Australia. His research and teaching focused on the place of digital media in everyday life, and the sociology of technology in educational setting. In 2011 he also published another profound book entitled "School and schooling in the digital era: a critical analysis" (Selwyn, 2011b) in which he analyze critically the schooling system in the digital era, encompassing some critical issues such as school privatization and how to adjust the school with the existing technological advancement.

Through his book Selwyn shows to us and leads us to broadening our perspectives on the relation between technology and education by using more philosophical and sociological lenses. Despite giving a fixed and finished answer to all of questions he raised, i.e. does technology displace teachers and schools, does technology improve learning and etc., he seem asks to us to discuss more broadly all of the questions to make us consider that many sociological factors influence the development and use of technology within educational system and how we interact and response to it. He urges that the future

of the technology in educational practices will be promising if we understand the nature of technology as a cultural product in which always related to some sociological, political, ethical, and cultural notions and realm.

In the midst of the development of educational technology as a field of studies and profession in Indonesia the presence of Selwyn's works is very beneficial. Moreover, amidst the domination of the AECT's educational technology perspective in all of educational technology department or study program in all of teacher colleges throughout Indonesia, the other concept or perspective to this field would enrich and broadening our understanding and practices. In other word, Selwyn's book brings an alternatives way to understand the field of educational technology by detaching from the mainstream discourse from the AECT circumstances. The view that technology as cultural product influences our perceived about many technological devices for educational purposes.

As cultural products, laptop, notebook, LCD projector, smartphone, tablet and etc. have sociological dimension in which always related to the social, cultural and political circumstances around it. I think it is urgent to give our student, especially in teacher colleges, with philosophical, sociological and even political dimension of educational technology to consider and understand that they should be careful when they choose and develop some technological equipment to facilitate the learning practices. Selwyn reminds us that educational technology is not merely about the technological equipment, but also about social, cultural and political realm around it. So, it is a must for educational technologist students and lecturers to read lot of social theories—especially critical social theories—and then urging the educational technology stu-

dy program or department to insert more philosophical and sociological theories on the official curricula.

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