Active Learning Online:
Necessity, Faculty Role, and a Concept Model for Course Design

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ABSTRACT

Preparing graduates for the present and future workforce is an important strategic learning and teaching goal of higher education. Towards realizing this goal, institutions are expending significant effort promoting active learning as an institution-wide teaching approach. Active learning is defined as learners deeply participating in the learning process which are being increasingly used in face-to-face contexts, but can it be used just as effectively in the online environments now common in higher education? In their 2017 paper, the authors established that active learning online is certainly possible. In this current article, the authors assert that not only is active learning online possible, but that it is a necessity to bolster workforce and higher order thinking skills needed in this current century. Importantly, the faculties have a crucial role to play in implementing active learning online, and active learning online permeates the whole of the online learning experience within courses.

KEYWORDS

Active Learning, Experiential Learning, Future of Work, Online Learning, Social-Cultural Principles, Technology, Workforce Development

INTRODUCTION: FROM POSSIBILITY TO NECESSITY

In 2017, we queried whether active learning via internet technologies was possible (Wang & Hitch, 2017), concluding that it was. Revisiting that question today, we propose that active learning online is absolutely necessary to foster in learners' higher order thinking and preparation for work. We uphold the view that active learning through technology is not merely an enhancement to effective online learning but is indispensable to preparing students (and some might say faculty as well) for their future.

Why the concern about active learning online? Part of the answer relates to volume of students undertaking online learning. The number of students undertaking online study is staggering and continuing to grow. As of January 2018, there were an estimated 6.3 million students in the U.S. alone taking at least one online course (Friedman, 2018). The number of students engaged in at least one online course has grown over 15% from 2016 to 2018 (Lederman, 2018); Colleges and universities, integrate online learning into their strategy (Kak, 2018) mostly for reasons of competitiveness, expanding market reach and efficiencies; Globally, the age-spectrum of students worldwide who have grown up with technology is lengthening and there is the expectation that technology will be used for learning, just as it is for many other aspects of daily living; And lastly, the current and future workplace

is incorporating technology at a dizzying pace: "Because of technological advances, technology's role within the organization is itself shifting," reports Satish Alapati, CIO of Media & Entertainment Customer Experience at AT&T. "The role of technology has evolved from automating the business to actually *being* the business" (Kark, Briggs, Terioglu, & Puranik, 2019).

The second part of the answer to the question of why we are concerned about active learning online, relates to the necessity of active learning to successful citizenship of the present and future world and to the continual evolution of human society. Active learning is inextricably linked to development of the higher order thinking capabilities such as analysis, and critical thinking – which are essential to effective functioning in the present and future society and importantly completely necessary to the innovation and creativity required to solve complex problems and keep human society moving forward, positively.

Active learning is a necessity to develop the capabilities required for successful citizenship and driving positive change for human society, in the 21st century and beyond. Increasingly, education is being conducted online and hence, central to the present paper is the argument that active learning in online learning environments is a necessity. Furthermore, the faculty role in active online learning is crucial. The role of faculty in facilitating active learning online is discussed and a conceptualization to guide the design of online courses based on the active learning paradigm is proposed.

THE CURRENT AND FUTURE WORKFORCE

In 1994, the venerable Peter Drucker offered to the world the article: The Age of Social Transformation (https://www.theatlantic.com/past/docs/issues/95dec/chilearn/drucker.htm). First published in the Atlantic Magazine in November of that year, Drucker envisioned a world where the blue-collar worker (the 'class' (*his word*) that had displaced the farm worker) was now rapidly disappearing itself. Some in the United States at that time (and to a lesser degree now) blamed the loss of manufacturing positions in the US on movement of manufacturing offshore. Drucker, disagreeing with this premise, envisioned a world where now the 'knowledge worker' was ascendant. Over 20 years ago, Drucker said this:

But--and this is a big but--the great majority of the new jobs require qualifications the industrial worker does not possess and is poorly equipped to acquire. They require a good deal of formal education and the ability to acquire and to apply theoretical and analytical knowledge. They require a different approach to work and a different mind-set. Above all, they require a habit of continuous learning. Displaced industrial workers thus cannot simply move into knowledge work or services the way displaced farmers and domestic workers moved into industrial work. At the very least they have to change their basic attitudes, values, and beliefs. (1994)

Human society is now fully established and entangled in the Age of Social Transformation. The worldwide accounting firm PwC prepared in 2017 a report describing the workforce of 2030, a year that is now only a decade away (www.pwc.com/people). In their report they state: "We are living through a fundamental transformation in the way we work. Automation and 'thinking machines' are replacing human tasks and jobs and changing the skills that organisations [sic] are looking for in their people. These momentous changes raise huge organizational [sic], talent and HR challenges – at a time when business leaders are already wrestling with unprecedented risks, disruption and political and societal upheaval" (p. 3). The Lumina Foundation supports the Institute for Higher Education Policy (IHEP) a nonpartisan, nonprofit organization. IHEP states its mission as promoting access to and success in higher education for all students. In their 2014 White Paper, IHEP wrote "instruction for all students should enhance problem solving, critical thinking, communication, and other transferrable skills that will enable them to become valuable members of their communities". Drucker's prophecy is reality. And that prophecy, we contend, requires the inclusion of active learning strategies whenever and wherever possible, including in online learning environments.

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