Introduction to Special Section: Academic Automation, Machine Un/Learning and Artificial Non/Intelligences

Jeremy Hunsinger

This special section grew out of a panel at the Society for the Social Study of Science in 2021. The panel engaged the broader questions of the relations between automation, machine learning, technologization, and higher education. The papers submitted to the special section are representative of one aspect of that panel, that of the technologization of higher education.

For higher education, the processes of technologization parallel that of society in general. Innovation, novelty, fashion, budgets, and similar intrigues push the adoption and dissemination of new technologies. Technologies come into use and either stabilize as part of the ongoing technologization of the university or pass from general use. In my career so far, there have been many technologies that have come and gone, and some that have stabilized. Some technologies have required more technical support and some less. Other technologies have been simple and easy for the institution and/or faculty and students to adapt. Regardless, every new technology takes the labor of everyone involved, and labor involves time.

Time and space are the two central economies of higher education. Some presume that higher education's primary economy is scholarship, but scholarship rests on the proper management of the two central economies. Much of the capital assets (buildings, real estate, infrastructure, etc.) of universities are designed to preserve and distribute time as a resource. The bureaucracy should also tend toward this model. In a similar vein, teaching and research take up the space of those capital assets. This is true of almost every system that produces a form of capital, such as scholarship, or produces workers who have to be trained to conform to economies of time and space. These economies tie back into the labor-oriented economies and symbolic economies of higher education. The various economies of higher education and their interaction are not simple, but it is clear that time and space are two that the other economies require to operate.

The ease of use of a technology is rarely what makes them gain traction in the university. Usually, they gain traction when they make a section of the university's administrative apparatus in a way that supports fashionable trends in university management, such as neo-liberalization, bureaucratized assessment regimes, austerity, a new popular research idea, or a specific teaching idea such as Moodle's social constructivist pedagogy. Most of these new technologies aim to transfer faculty and students' academic lives and labor into some quantifiable, administrative product.

We also should not disregard the function of the fashion system regarding the culture of technology. Much like the fashion system of mobile phones, the technologies you choose are not necessarily chosen merely for their function, but they are chosen for a host of reasons including that the technology is currently fashionable. Whole industries exist to influence technology decision-makers, and while technical decisions are part of the equation of decision-making, technical decisions can be moderated by other interests of the decision-making parties and one of those interests is

to be involved in the current discussions; the current fashions of the technological elites. Fashions operate in many parts of higher education and it is worth paying attention to their changing currents, especially in terms of economic models, and the systems that govern research and teaching.

The papers in the special section pursue that questioning and critique in several ways. Mostly they confront the perpetual technologization of the university and its implications. For instance, Matthew Vetter and Zachary McDowell engage Wikipedia and higher education to critique the ongoing corporatization and privatization of knowledge and the promotion of non-knowledge. They argue that slow knowledge is a mode of resistance to the privatization of knowledge. Because of that, they claim we need to develop knowledge platforms that recognize that efficiency and speed do not yield the best knowledge systems nor the best learning outcomes.

Edward Maclin critiques Learning Management Systems (LMS's) as non-convivial and designed primarily to bureaucratize and administrate students. He uses Ivan Illich's construction of the conviviality of tools to imagine how LMS's could change if they were convivial. While we can imagine the difference, as Illich and Maclin have, LMS's are instruments of administration and not instruments of community or conviviality. Maclin presents a solid argument on how we can do better by adopting Illich's idea that we should restrain technology such as the LMS from its hegemonic position of being an administrative system that subjectifies its users and moves them toward a position where they are only useful for conviviality. In other words, the priority of the LMS should be that it helps us live better together or in the case of the university, it helps the university help people live better.

The final contribution from Mario Khreiche engages modularity as its central question. One of the persistent critiques of technology in higher education is that it transforms the traditional constructions of labor in the academy, transforming academics into part-time technicians or other specialists. The transformation of their work-life impinges on their time, which is already constrained due to overwork and increasing expectations. However, Kreiche's point is less the ongoing critique of labor and more about how modularity in higher education transforms the work-life of the institution. He argues that modularity, frequently found in the U.K., is becoming more common in the U.S. and transforming how people design their classes. He is quite clear that one way that this modularity is created is because the learning management systems have assumptions of modularity designed into them. Thus, the design of the system becomes the design of the course. This insight has significant implications for learning and the management of courses, intellectual property, and basically all of academic labor around learning.

In the end, all the essays in this special section show that the general assumption of technology and learning in higher education seems to be "neutrality"; technology is not neutral, it is political. The technologies we choose to use structure the learning experiences of our students. Our students are learning the technologies, but also the assumptions of those technologies and the designs of the technologies with whatever hidden curriculum those technologies embody. In short, what is clear from these research papers is that educational technology in higher education is a place for concern, critique, and development based on the norms of the university, such as communality, conviviality, and collegiality.