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Where is Value in Digital Higher Education: From Commodities to Assets

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Abstract
Students, academics, and higher education institutions' administrators and leaders use digital platforms in their everyday work. A diversity of platforms offer various services, target different clients, and include different business models. Most of these platforms are proprietary and form the edtech industry. We should pay attention to the specific economic form of coordination in which digitalization of and in higher education is expanding, namely assetization.

In 2020, digital platforms, which had already gained a significant foothold in higher education (HE) globally, were suddenly thrust into the limelight, as HE institutions over the world suddenly pivoted to operating almost entirely online. As a result, there has been a collective recognition of the influence of such platforms and related discussion of their role and impact.

Digital Platforms in Higher Education

Although the debates over the past two years have helped to educate those who knew little previously about the role(s) of digital platforms in HE, they have failed to adequately account for the tremendous diversity of digital platforms that exist in and around HE. However, we must understand this diversity in order to truly grasp the potential long-term implications of the "digitalization" of HE across the world.

Broadly conceived, there are three categories of digital platforms that can be found in the HE sector. First, there are platforms that target individual students directly, running in parallel to the institutionalized and regulated HE system (e.g., apps that automate note taking or allow for group annotation of course materials). Such platforms collect content and aggregate user data, while the platform owner makes pedagogic decisions, structures the learning process, and innovates (if desired) with the collected user data.

Second, there are platforms that almost serve as educational "institutions" in their own right (e.g., apps that allow self-employed teachers to offer micro- and other courses directly to prospective students). Such platforms serve as intermediaries, connecting service buyers (learners) and sellers (content providers). They also directly structure the social and economic relations that exist on the platform—setting the terms of use—and unilaterally determine how content will be provided, what teachers can do, how learners can interact, how content is assigned value, who has access and who does not, pricing, and so on. Such platforms can also benefit from the user data, e.g., by offering personalized suggestions to learners for particular classes, deciding on teacher payment based on user behavior, etc.

Finally, there are platforms that are integrated directly into the work of a university, via contractual arrangements. Generally, universities pay a subscription or fees for the use of such platforms. A university might integrate such external proprietary platforms into its digital ecosystem, allow certain data flows, and even use proprietary analytics operations (i.e., receiving intelligence about teachers and students as part of the platform functionality). In this case, the university is the personal data controller and is responsible for making sure that personal data is collected, accessed, stored, and processed legally. Nevertheless, there are ways in which personal data might be shared with the

proprietary platform owner to aggregate, analyze, and create new data about particular users. Generally, it is very difficult to change such arrangements, given contractual implications and also the scale of integration that occurs.

Understanding Digital Platforms as Assets, Not Commodities

The three categories outlined here have different business models and client foci. The first is direct to consumer service, the second is intermediation between individual users, and the third is a business-to-business model. However, in all three cases, platforms are protected by a software licence and terms of use. As a result, they work as assets (i.e., resources that generate ongoing value and economic benefit, as a result of ownership and control), rather than commodities (which only have value at the time of purchase). There are many implications to this, which must be better understood by HE institutions around the world. In the remainder of this article, I will highlight three key points that are particularly relevant for policy and practice, namely the implications for value, for control, and for user data.

First, the fact that edtech platforms operate as assets in terms of their financial models has important implications. Universities do not pay once for ownership rights over a particular platform. Rather, they generally pay annual subscriptions for access and use. There are similar ongoing payment models in place for platforms that directly target students. These arrangements ensure that students, staff, and HE institutions are locked into ongoing relations with platform owners, as it becomes increasingly technologically, legally, or pragmatically difficult to sever ties. As a result, the platform owner has significant power to increase the cost of accessing and using the platform.

A second implication relates to control. With commodities, ownership rights are exchanged when products and services are sold and bought. However, in the case of accessing assets, all ownership, follow-through, and control rights stay with the asset owners. They decide about access to the platform, how users interact, and what they can or cannot do. Moreover, edtech companies structure learning and social and economic relations on their respective platforms. Conditions of operations can unilaterally and even suddenly change, if the owner issues new terms of use, decides to sell the platform, or merges with another company. Individual and institutional users have little say about how things are run on the platform, including algorithms that make predictions and have a consequential impact on their learning paths. In addition, due to commercial sensitivity, users often have little awareness of which operations exist at all in the platforms and how they are designed.

Finally, there are implications in terms of user data. Digital platforms collect digital user data whenever users engage with them, e.g., any content posted, individual click-through behavior, time spent on particular activities, the sequence of their actions on the platform, their IP address, their machine ID, and so on. Such user data can be made valuable in its own right when aggregated, analyzed, and turned into intelligence. At the moment, discourse in edtech and education more generally places high bets on data-rich processes as aiming at personalization and automation to support efficiencies and effectiveness. In reality, we notice the early stages of such operations in HE. There are lots of experimentation in innovation with user data in how various analytics and other intelligence are integrated into a platform offer. Data privacy regulations do not tackle the issue of data-rich operations and statistical calculations. When user data is aggregated, individuals are always put in groups and in relation to each other in search of potential trends. New information is produced about individuals with looping back to target their behavior. But students and staff as users do not have a say in how their data is processed for producing analytics and predictions in the products in platforms that they use for their studies and work. It is, therefore, key who gets access to the aggregated user data, who has an opportunity to innovate in edtech, and who can benefit from its potential future economic value.

Edtech has an enormous potential to bring benefits to students, staff, and HE at large, but it matters how it is rolled out and how it is governed.

Conclusion

There is much to say about edtech in HE. Clearly, edtech has an enormous potential to bring benefits to students, staff, and HE at large, but it matters how it is rolled out and how it is governed. We need to think much more carefully about how we can make

proprietary edtech platform owners accountable to HE stakeholders and the public at large. We also need to do more to control potential predatory lock-in and monopoly exploitation. If edtech becomes dominated by a few giants, as has happened in other industries, what would that mean for the future of our sector? Finally, we need to find ways to ensure more democratic governance of user data. Should currently private data assets be made publicly available, for example, so that aggregated user data could be used by everyone for ethical and socially just innovation? These are key questions that policymakers and stakeholders should urgently address. ◢

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