

## Submissions Abstract Book - All Papers (Included Submissions)

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Universities and unicorns: how are (education) technology companies making digital data valuable

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**Research Domain:** Higher education policy (HEP)

**Abstract:**

This talk focuses on education technology (edtech) companies working in the higher education sector and the value of digital data. New digital economies and platform business models have changed patterns of control and ownership over user-generated data. While activities in the data brokering industries have increased, users are not positioned as owners (and thus potential sellers) of their data. Instead, firms have enhanced their analytical abilities to turn data into insights, and associated business-to-business data markets have emerged as a result. As universities increasingly digitalise their operations via proprietary platforms, they also collect more personal data from students and staff. Legally, universities are data controllers but they may allow third parties to process their data and engage in other contractual data relations. This talk will present the work in progress from the UU project and address who is able to make university-related personal data valuable, how, and in what form.

**Paper:**

Within rapidly expanding digital economies, digital platforms have been said to function as socio-technical intermediaries (Langley & Leyshon, 2017; UNCTAD, 2019) integrated in digital ecosystems that are made of technical devices, users, sellers, norms, laws, and expectations (Birch & Cochrane, 2021; Van Dijck, 2020). For example, beliefs in projected values of continued extraction of digital personal data has become vital to how investors and technology companies imagine and take account of what their assets are worth (Beckert, 2016; Birch et al., 2021). The significance of these processes have become increasingly important in a context where business-to-business markets have overshadowed the emergence of consumer-to-business data markets (Beauvisage & Mellet, 2020). Many universities are not-for-profit organisations; applying edtech techniques and business models to the higher education sector therefore comes with its own set of challenges and opportunities. Universities tend to use proprietary platforms within their institutions and have only been building up their own data-processing procedures and capabilities to a limited extent. Some universities are therefore looking to partner with market actors in order to find data services that can help them improve organisational efficiency, education quality, and overall ability to generate revenue. The question then becomes, how, for whom, and through what process and structures is this data made valuable?

Scholars have broadly pointed to the importance of turning bodies of user-generated data into intelligence through aggregation and analysis. Sadowski argues this happens in various different

ways. Key approaches include: processing data into intelligence that allow firms to either improve an existing product or service, or to create new ones; selling data-based products (such as business and learning analytics and data intelligence); selling automated matching services and; selling various advertisement services and products (Sadowski, 2020). Accounting for the value of the intangible assets that underpin these processes is crucial not least when considering the price-to-earnings ratio of many big tech companies and edtech companies. While big tech companies—according to Birch and colleagues—tend to use engagement numbers as proxies for such intangibles, the financial value of user-generated data comes from current and imagined usage and control (Birch et al., 2021). Platforms’ overall market power and legal skills condition how data can be made valuable (e.g. Khan, 2017; Pasquale, 2015).

Universities, of course, have a different relationship to their students than technology companies have to their customers. As such, issues around ethical and appropriate use of university-related personal data potentially changes the ways in which data can be made valuable. For example, data services might help universities in mapping and making visible students’ learning experiences and developments. But that legibility also holds the potential to change the political and social nature of the learning experience and the university’s role in it (e.g., Hansen, 2019). In another example, the financial models of many universities are built in part on the number of degrees they produce. Associated revenues are then generated through private tuition fees or government funded grants, subsidies, or loans. Can and ought data be used to expand the ways in which universities allow themselves or others to generate revenue from students?

In the “Universities and Unicorns: building digital assets in the higher education industry” (UU) project, we are interested in how the value of digital personal data in the higher education sector is constructed (Komljenovic, 2020, 2021). By following a theoretical lens of digital rentiership and digital assetisation, we analyse the processes of how data is turned into assets and what kind of assets. Furthermore, we are following the relations between universities, edtech companies, and their investors. Who is assetising the data? Who collects rent and other forms of value from this data? How are the ownership and control relations organized and structured? And finally, what are the consequences?

In this talk, I will present work in progress from the UU project’s qualitative case studies of edtech companies. Insights will be discussed with a focus on what data these companies are collecting from universities; what data they are controlling and processing; how they are making the data valuable; and how they are turning the data into assets. An important part of these processes is the companies’ relations to universities when constructing these digital assets. This will be one of the first empirical insights into the political economy of digital data and digital assets in higher education.

## **References:**

### **References**

Beauvisage, T., & Mellet, K. (2020). Datasets: Assetizing and Marketizing Personal Data. In K. Birch & F. Muniesa (Eds.), *Assetization: Turning Things Into Assets in Technoscientific Capitalism* (pp. 75–95). MIT Press.

Beckert, J. (2016). *Imagined futures: Fictional expectations and capitalist dynamics*. Harvard University Press.

Birch, K., & Cochrane, D. T. (2021). Big Tech: Four Emerging Forms of Digital Rentiership. *Science as Culture*, 0(0), 1–15. <https://doi.org/10.1080/09505431.2021.1932794>

Birch, K., Cochrane, D., & Ward, C. (2021). Data as asset? The measurement, governance, and valuation of digital personal data by Big Tech. *Big Data & Society*, 8(1), 20539517211017308. <https://doi.org/10.1177/20539517211017308>

Hansen, M. (2019, November 13). Managing secrets in higher education. *Impact of Social Sciences*. <https://blogs.lse.ac.uk/impactofsocialsciences/2019/11/13/managing-secrets-in-higher-education/>

Khan, L. (2017). Amazon's Antitrust Paradox. *The Yale Law Journal*, 126(3), 1.

Komljenovic, J. (2020). The future of value in digitalised higher education: Why data privacy should not be our biggest concern. *Higher Education*. <https://doi.org/10.1007/s10734-020-00639-7>

Komljenovic, J. (2021). The rise of education rentiers: Digital platforms, digital data and rents. *Learning, Media and Technology*, 0(0), 1–13. <https://doi.org/10.1080/17439884.2021.1891422>

Langley, P., & Leyshon, A. (2017). Platform capitalism: The intermediation and capitalization of digital economic circulation. *Finance and Society*, 3(1), 11–31. <https://doi.org/10.2218/finsoc.v3i1.1936>

Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.

UNCTAD. (2019). *Digital Economy Report: Value Creation and Capture—Implications for Developing Countries* (p. 194). United Nations Conference on Trade and Development. [https://unctad.org/system/files/official-document/der2019\\_en.pdf](https://unctad.org/system/files/official-document/der2019_en.pdf)

Van Dijck, J. (2020). Seeing the forest for the trees: Visualizing platformization and its governance. *New Media & Society*, 1461444820940293. <https://doi.org/10.1177/1461444820940293>