

Synopsis: MacGilchrist et al, 2019. Students and Society in the 2020s. Three future 'histories' of education and technology.

Three speculative scenarios for the future of educational technology are written from the viewpoint of 2040 three speculative scenarios for the future of educational technology. (An example of "social science fiction" as described in Selwyn *et al* 2019b)

They offer some pointers to aims for educational technology research:

- explore alternatives to contemporary schooling and how they can succeed (unschooling, worldschooling, informal schooling);
- how can software be designed differently to support greater equity in education (e.g. Solid; OER, convivial technology, respectful design);
- explore how new ways of living might be developed that promote justice against overbearing corporate control of data and its consequences for individuals and communities.

The scenarios aim to illustrate alternative *sociotechnical* configurations in which technology is embedded:

1. 'smooth users', improving themselves in the pursuit of frictionless efficiency within a post-democratic frame created by large corporations;
2. 'digital nomads', seeking freedom, individualism and aesthetic joy as solopreneurs exploiting state regulations and algorithmic rules while stepping out of the state and deeply into the capitalist new economy, or
3. participatory, democratic, ecological humans embedded in 'collective agency' that see institutions as spaces for exploring more equitable ways of living?

Scenario 1: smooth users, competent subjects

Major technology companies rebranded themselves as global learning platforms that produce software for learning, teaching and assessment with integrated learning resources with the tracking of student data. This development was seen as an important part of developing digital and information literacy in which the main aim is to develop students to respond to the challenges of the digital world but not necessarily to shape it. Education became a site of technical expertise with an emphasis is on productivity creating an "aesthetic of smoothness and predictability" in individual development.

In 2022 adaptive software and predictive education is prioritised in order to optimise educational processes and to help students optimise themselves individually supported by a new generation of AI-driven technologies. However, by 2025 social inequalities remained and the goal of optimising the self remained uppermost. In spite of the rhetoric of 'disruption', traditional hierarchies and

inequalities remained while schools became technology rich without transforming underlying social issues. Schools had become dependent on intellectual property and infrastructure owned by corporations that controlled the analysis of user data enabling greater commercial control of educational goals and processes independently of public democratic overview.

Scenario 2: Digital nomads, exploiting digitalisation for individualism

In the late 2010s a new breed of ‘solopreneurs’ emerged that utilised the data generated by the larger technology corporations as a resource to start their own online businesses. These solopreneurs or *digital nomads* exploited the difference between rich countries and those with low living expenses in order to make startups easier to build. Large investment was no longer required to create a company and the emerging gig economy reduced responsibility for staff in schools.

‘Mindset’ became a central focus and goal of the digital nomad lifestyle. Optimising the self, a more explicit form of individualism, generated the sense that schools and universities were increasingly seen as dispensable while de-centred, on demand learning became increasingly possible. Formal education was assumed to be superfluous. Ironically, these changes arose from the very set of competencies and skills that were promoted in education during the 2010s, namely the recognition of the economic importance of digital technology, the ability to select relevant digital tools to collaborate and to exploit data, to formulate algorithms and to build resources to present and share content. This very skillset enabled young people to liberate themselves from national and state education as well as their potential role in strengthening national economies (e.g. through employment and tax obligations).

Personal branding and authenticity became important life and business goals while the online environment resulted in the blurring of private public and economic spheres. Digital nomads become state free, avoiding regulation in the conduct of business even while relying on national regulations to create a business, and in their personal lives family and child rearing became detached from national schools systems and relied increasingly on online educational systems. Yet the values of those systems prevailed: individualism, technical prowess, teamwork, attainment. Social emancipation and critical attitudes towards social issues became less important as self-optimisation grew in importance realised not only through life style choices but more directly through digital manipulation of reputation and identity. Entrepreneurial thinking became an expression of freedom (e.g. see “I chose Freedom”, the slogan of BNX Digital Nomad at Lisbon Festival in 2018 <https://www.dnxfestival.com/>)

Scenario 3: collective agents, in institutions as spaces for exploring new forms of living

By 2020 education, the economy and the planet were in trouble. Surveillance and dependence on corporately owned software undermined the security not only of

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citizens but also of government. A post-democratic resistance was emerging and new ways of living collectively became a focus. Well-being, inclusion, the environmental impact of digital technology and the need to protect personal data all became high priorities for citizens. Education was reformulated to emphasise collective rather than individual practice. 'Respectful design' became uppermost as a foundation for educational technology building on values of social and cultural inclusivity and respecting a pluralistic approach to ways of knowing.

Data privacy by design became mandatory for all software, including LMS and informed decision making about suitable educational technology became the norm. The gathering and aggregation of personal data became transparent and controllable, owned by schools and students, while software built on responsible creative methodologies became open source. Open educational resources too became widespread, helping to spread diverse perspectives. The data literacy movement widens, with an emphasis on the ethics of data interpretation and application as well as learning to code, and 'convivial technologies' develop with an important consequence that corporate models of profit generation give way to stakeholder, community orientations. The dominance of platforms on the web is curtailed and different providers and services become interoperable so that whatever content is produced using one service can be easily and readily shared with another.

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