Unlearning, relearning, staying with the trouble: Scenarios and the future of education

Matt Finch[1] · Niamh Ní Bhroin[2] · Steffen Krüger[3]

Abstract   In times of turbulence, uncertainty, novelty, and ambiguity—the so-called TUNA conditions—our experience of the past may prove a poor guide to the future times in which our decisions and their consequences will unfold. Under such conditions, the manufacture of scenarios that are plausible future contexts for a given issue and are designed to enrich strategic thinking by challenging expectations can help to inform decisions and debates. Education is often subject to such debates, as it is, among other things, a way of preparing for what the future holds. This article gives an account of learnings and unlearnings from a scenarios project applying the Oxford Scenario Planning Approach to the digitalization of education in Norwegian schools. It shows how challenging issues raised in the context of distant imagined futures proved to be immediately pertinent in the developing Covid-19 pandemic. This article sets this work in the wider context of education futures and ongoing debate about suitable methodological choices for institutions and communities wishing to explore how we will teach and learn together in times to come. As a wide range of actors explore the possibility of a new social contract for education, the article proposes that future scenarios can provide fresh perspectives on issues that are difficult or even impossible to resolve within current frames of reference, including questions of equity and justice that may be construed differently in times to come.

✉ Steffen Krüger
   steffen.kruger@media.uio.no

   Matt Finch
   matthew.finch@sbs.ox.ac.uk

   Niamh Ní Bhroin
   n.n.bhroin@media.uio.no

1   Saïd Business School, University of Oxford, Park End Street, Oxford OX1 1HP, UK

2   University of Agder, Campus Kristiansand, Universitetsveien 25, 4630 Kristiansand, Norway

3   Department of Media and Communication, University of Oslo, Gaustadalléen 21, Forskningsparken, 0349 Oslo, Norway

🌀 Springer

Education is, among other things, a way of preparing for what the future holds. We learn our way into every tomorrow. Whether seen as a policymaker's tool for change, a way of ensuring that cherished values or practices continue in times to come, a space for unfettered exploration, or a venue for becoming a particular kind of person, education has a unique and privileged relationship with the future. Yet, unpredictable uncertainties abound. In what context will education take place? Who will be the actors in the teaching and learning ecosystems, formal and informal, of tomorrow? What spaces, physical and virtual, will those actors inhabit? How will they relate to one another, and what value will be created by their interactions?

In times of turbulence, unpredictable uncertainty, novelty, and ambiguity—the so-called TUNA conditions (Ramírez & Wilkinson, 2016)—the experience of the past may provide a poor guide to the most pressing decisions of the age. Given that we cannot gather data or evidence from events that have not yet happened—and in one foresight practitioner's memorable phrase (Davis, 1998), an observed trend is only a trend until it bends (or breaks!)—we require tools that enable us to consider how times to come may differ from the present in ways that challenge our current expectations.

These issues have been explored within educational research from a "futures literacy" perspective (Miller, 2007, 2018). This forms part of a wider concern with future uncertainty that can increasingly be found in popular as well as scholarly and professional texts (see, for example, McGonigal, 2022). Facer's (2011) work on "learning futures" has been especially significant, seeking "to create future-building schools that actively support their communities to tip the balance of socio-technical change in favour of fair, sustainable and democratic futures" (p. 105). In this article, we follow a distinct tradition within strategic foresight: the Oxford Scenario Planning Approach (Ramírez & Wilkinson, 2016).

Scenario planning offers one approach to learning about uncertainties in the present-day context and considering their implications for the choices we face here and now. Scenarios that are plausible visions of the future context (Spaniol & Rowland, 2019) and are explicitly designed to contrast and challenge our assumptions (Ramírez & Wilkinson, 2016) offer fresh vantage points to support wiser decisions. As Burt and Nair (2020) argued, the benefit of scenarios may include "unlearning" as well as learning—making use of scenarios' provisional and speculative quality to enable "letting go or relaxing the rigidities of previously held assumptions and beliefs, rather than forgetting them" (p. 2).

In this article, we offer some brief reflections on what we have usefully learned, and unlearned, during pandemic-era scenario work applying the Oxford approach to education and its potential futures. In the conclusion, we also consider implications for the development of a new social contract for education.

Schools and/or screens: The example of the Oslo scenarios

In late 2019, the University of Oslo's Department of Media and Communication developed scenarios for the future of Norwegian education, set in the year 2050 (Finch et al., 2021; Finch & Sandford, 2022). This work, which was a collaboration between two projects, Screen Cultures and Living the Nordic Model, aimed to support researchers working under

conditions of uncertainty to produce future-oriented knowledge that would be of use to policymakers and other stakeholders. Teachers, representatives of technology firms, government agencies and nongovernmental organizations (NGOs), and policymakers joined researchers to address the increasing digitalization of primary and secondary schooling in Norway. This shift had raised concerns about the involvement of commercial entities and uncertainty about the longer-term consequences of digitalization and datafication for children's futures.

The project's scenarios were anchored in the context of a real-world decision-maker: the typical Norwegian head teacher. In Norway, the head teacher is responsible for organizing the school and teaching in line with relevant legislation and guidelines. Head teachers therefore have primary authority over the use of digital devices within an individual school setting. Head teachers also have extensive links within their communities and across the hierarchical levels of their education systems—from national, county, and city governments to suppliers, teachers and their unions, parents… and of course, students.

The scenario set drew on contextual uncertainties faced by Norwegian head teachers to elaborate three scenarios on a 30-year timeline. These were titled The Child Who Had to Grow Up, Norway Prime, and Make Norway Great Again. Each offered its own challenges to expectations and assumptions about the future of digitalized teaching and learning.

The first scenario, The Child Who Had to Grow Up, depicted a climate-ravaged post-capitalist world on the brink of collapse. The economics of profit and net worth had given way, out of necessity, to a more equitable one of yield and fair-share distribution. Adults were occupied with the pressing need to address environmental emergencies, while children and teens self-educated across age groups in advanced virtual environments, assisted by artificial intelligence. Education was more about exploration than instruction, and the increased independence and responsibility demanded of older learners challenged the current boundary between adolescence and adulthood.

In the second scenario, Norway Prime, Norwegians were employees as much as citizens in a world of corporate dominance; big business and the state were deeply entwined. Surveillance was the norm, privacy was dead, and machine intelligence provided people with physical comfort at the price of their conformity. Education took place in the home, tailored to develop the workers of tomorrow. In this scenario, children's health and well-being became the last battleground between parents and institutions as carers argued—against the prescriptions of corporate algorithms—that they knew what was best for their children.

Finally, in the Make Norway Great Again scenario, the oil-rich nation's plans for "life after fossil fuels" collapsed after a series of economic and financial shocks, sending the nation into a spiraling decline. Schools remained remarkably similar to the institutions we know today, but they operated in an impoverished environment characterized by social tensions and authoritarian politics.

The workshop outputs were refined and published as a set in March 2020, as Norway was challenged by its first Covid-19 cases. Several issues identified in the scenarios swiftly rose to prominence. Young learners working remotely from home had to take more responsibility for their learning, as in the first scenario of The Child Who Had to Grow Up, while adults concerned themselves with meeting the needs of an emergent crisis—albeit a pandemic, rather than an eco-catastrophe. As policymakers had to trade off productivity against health and the convenience of "just-in-time" supply chains versus "just-in-case" procurement of masks and other medical equipment, the world appeared to have a foretaste of this scenario's economic concerns (see, for example, World Health Organization, 2022).

Norwegian parents, whose assessment of Covid-19's threat to their children's health differed from that of the state, lobbied for school closures on Facebook, taking a battle

over perceptions of well-being into digital spaces akin to those of the second scenario of Norway Prime. The digital terrain of education became privatized too; the only slight difference was that Microsoft, not Amazon, had managed to secure the deal for schooling in Norway. In April 2020, the corporation announced that its Teams tool had more than doubled its user base, seeming to confirm Norwegian parents' impression that this use of an online medium for education was determining their and their children's reality.

Finally, the economic shocks of Covid-19, including the slowing of the oil market, caused Norway to engage in public spending at a scale unprecedented in peacetime, breaking a self-imposed cap on the nation's sovereign wealth fund, such as that which had appeared in Make Norway Great Again. Events and dynamics that had seemed the province of challenging scenarios prior to the Covid-19 pandemic were becoming all too real in the here and now. This is not to say that the scenario set had served as a soothsayer's crystal ball; it was not a matter of correct prediction as much as of the successful expansion of the frame of reference through which scenario learners perceived that the world could unfold.

Staying with the trouble: Using plausible futures for wise decisions

"Staying with the trouble requires learning to be truly present, not as a vanishing pivot between awful or edenic pasts and apocalyptic or salvific futures, but as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings", wrote Haraway (2016, p. 1). Though scenarios built using the Oxford approach are set in times to come, they offer a way of "staying with the trouble" in this sense, helping us to confront the limits of ways we currently perceive our present situation and to acknowledge the circumstances in which we are entangled.

Scenarios are not mere thought experiments, but ways of finding a basis for action even when it seems impossible to know what is about to transpire. For Dewey (1910), new and practical ideas could be found through "reflection" on a "felt difficulty". Rumelt (2022) drew on Dewey's ideas to argue that strategy, and therefore policy, are design problems that can also be addressed in this way. The difficulties we feel when we encounter a challenging scenario provide us with a way to address the most wicked problems of our age and face up to what Ravetz (2011) called "contradictions":

> here meaning a tension whose resolution, or a problem whose solution, is impossible in the terms of the currently accepted frameworks.... Contradictions evolve with the system they affect. They can be less salient at the outset, and can indeed be suppressed for a long time. But they can eventually 'mature' and require resolution lest they damage or destroy the whole system. (p. 142)

As one student of Saunders (2021) neatly phrased it, misquoting Einstein: "No worthy problem is ever solved in the plane of its original conception" (p. 161). Addressing such contradictions requires creative thinking of the "bisociative" kind described by Koestler (1964). As Dubitzky et al. (2012) put it, "bisociation, according to Koestler, means to join unrelated, often conflicting, information in a new way. It is being 'double minded' or able to think simultaneously on more than one plane or matrix of thought" (p. 16).

Scenarios provide that fresh plane of thinking, offering new ground where creative solutions can be found to problems irresolvable within current frameworks. Rather than seeking out desirable futures (e.g., judging for ourselves, from the shoreline of the present, how we wish the sea to come ashore), useful learning (and unlearning) can take place when we deliberately manufacture futures that challenge our assumptions. Doing so, and using this

process to create hindsight, allows us to make judgments on the present from the perspective of each contrasting future.

In a spirit of humility, we ask ourselves: How would our choices be considered from the point of view of each scenario? What would inhabitants of each future value? Would they be glad for the education we are planning to provide them with? Would the future worlds of work, of politics, and of health or family life be well served by the educational choices we are making today? Answering these questions can help address the three issues Vickers (1965) identified as fundamental to sound decision-making in the present: reality, values, and instrumental capacity—or "What's happening? What does it mean for us? And what can we do about it?"

This has implications not just for strategy and policy but the very identity of the institutions and communities that participate in education. As Lang (2022) noted, there can be a "temporal mismatch" between organizational identity, which is inherited from the past, and strategy or policy, which are oriented toward the future. When contemplating the future governance of the education system, and the renewal of the social contract that will ensure our common good in times to come, we must consider not just what our institutions will do but what they may need to become.

As we explore the diverse and uncertain contexts within which education will develop, we recognize that many actors have a role to play in shaping those futures, that they will already have a perspective on what lies ahead, and that "the dialogue… must involve the widest participation possible" (UNESCO, 2021, p. 156). In such circumstances, the common ground of a time that has yet to arrive can provide a useful space for discussion and debate between even the most antagonistic of actors, as scenario planners discovered during peace building and reconciliation work in South Africa and Colombia (Kahane, 2017, 2021).

Indeed, foresight has the potential to make a special contribution to discussions of equity, because the debate over what is equitable and just always takes place in a historical context. As Sen (2009) pointed out, no single, perfectly just imaginary exists against which all circumstances can be judged. Therefore, justice may rather be seen as a question of our capabilities and liberties within a given context; scenarios, as a contrasting set of future contexts for a specific user, use, and purpose (Ramirez & Wilkinson, 2016), manufactured to challenge assumptions, may provide us with fresh and useful perspectives on the challenges of justice and equity faced in the here and now.

As noted in a previous scenario project (Finch & Mahon, 2021) on European regional inequality:

> Justice isn't computational, even when the courts tell us that they are deciding a case "on the balance of probabilities", as the civil standard of proof is defined in Ireland. The economist John Kay points out that "legal reasoning uses a narrative rather than a probabilistic approach": we argue a case in court and seek to win by telling the more compelling or persuasive story.

> Given that justice is narratively and socially defined, it won't do to just "run the numbers" when we look at its future. We need to think, not just about how Europeans define… inequality today, but how inequality and injustice might be understood tomorrow. No one has privileged access to the future, and it's impossible to gather data and evidence from events which haven't happened yet; even when foreseeable trends do seem to exist, the experience of Covid-19 has reminded us how easily a seemingly inevitable curve can be bent or broken by events which decision-makers had not accounted for.

This close attention to the specific context and purpose of futures work is resonant with Facer and Sriprakash's (2021) objection to the generic and undifferentiated "universalization" of standardized futures literacy techniques; they called instead for "divesting these practices from claims to institutional authority and desires for universal codification and instead positioning them as part of a broader movement of educational and social struggles over the future" (p. 2).

Chermack (2022) emphasized that the Oxford approach is intended to be procedurally agnostic. It offers not a rigid method but a way to "understand and navigate the methodological choices in designing an intervention that effectively supports the purpose and capabilities of the specific scenario learner" (Ramírez & Wilkinson, 2016, p. 19). Examples of the approach being tailored for the use of educational settings include not just the Oslo study presented here but the Islands in the Sky foresight project of the UK's Open University (2023).

As we contemplate a new social contract for education, we understand this also entails exploring through localized practices of cocreation how the context for education might unfold in ways both within and beyond our various expectations, predictions, intentions, hopes, and fears. Such exploration includes but is not constrained to the question of how the five dimensions identified by UNESCO's (2021) report on "reimagining our futures together" might manifest and be viewed in a range of different and challenging futures: pedagogy, curricula, teaching, schools, and other educational opportunities across life and in different social and cultural spaces.

As Facer (2011) put it, "Only by rewriting the stories we tell ourselves about the relationship between education, technology and social change can we ensure that schools are really equipped to prepare all of their students for the future" (p. x). The question for teachers, learners, and the various organizations and communities in which they participate becomes "How will we adapt, evolve, and thrive even if uncertainties play out in ways for which we had not initially prepared?" We have found that scenarios provide not the final answer to this question but some useful tools for informing the design of a wise and effective route forward in the face of unfolding futures.

References

Burt, G., & Nair, A. K. (2020). Rigidities of imagination in scenario planning: Strategic foresight through 'unlearning.' *Technological Forecasting and Social Change, 153,* 119927. https://doi.org/10.1016/j.techfore.2020.119927

Chermack, T. J. (2022). *Using scenarios: Scenario planning for improving organizations.* Berrett-Koehler.

Davis, G. (1998). Creating scenarios for your company's future [Conference presentation]. In *The Shell International 1998 Conference on corporate environmental, health and safety excellence: Bringing sustainable development down to Earth*, New York.

Dewey, J. (1910). *How we think*. Heath and Company.

Dubitzky, W., Kötter, T., Schmidt, O., & Berthold, M. R. (2012). Towards creative information exploration based on Koestler's concept of bisociation. In M. R. Berthold (Ed.), *Bisociative knowledge discovery* (pp. 11–32). Springer.

Facer, K. (2011). *Learning futures: Education, technology and social change*. Routledge.

Facer, K., & Sriprakash, A. (2021). Provincialising futures literacy: A caution against codification. *Futures, 133,* 102807. https://doi.org/10.1016/j.futures.2021.102807

Finch, M., & Mahon, M. (2021). Tales of the times to come: The humanities and scenario planning. *Irish Humanities Alliance*. https://www.irishhumanities.com/blog/tales-of-the-times-to-come-the-humanities-and-scenario-planning/

Finch, M., Ní Bhroin, N., & Krüger, S. (2021). Learning from futures you didn't see coming? Scenario planning, education and the (post)pandemic world. *CORE*. https://core-evidence.eu/posts/learning-from-futures-you-didn-t-see-coming-scenario-planning-education-and-the-post-pandemic-world

Finch, M., & Sandford, R. (2022). Scenarios as a device for forming common futures: Plurality and the post-pandemic university. In M. Carrigan (Ed.), *Building the post-pandemic university* (pp. 20–37). Edward Elgar.

Haraway, D. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Kahane, A. (2017). *Collaborating with the enemy: How to work with people you don't agree with or like or trust*. Berrett-Koehler.

Kahane, A. (2021). *Facilitating breakthrough: How to remove obstacles, bridge differences, and move forward together*. Berrett-Koehler.

Koestler, A. (1964). *The act of creation*. Penguin.

Lang, T. (2022). Being and becoming: Reconciling the temporal mismatch between organizational identity and strategy by providing identity with a future. *Strategic Management Review*. https://www.strategicmanagementreview.net/assets/articles/Lang.pdf

McGonigal, J. (2022). *Imaginable: How to see the future coming and be ready for anything*. Random House.

Miller, R. (2007). Futures literacy: A hybrid strategic scenario method. *Futures, 39*(4), 341–362.

Miller, R. (2018). *Transforming the future: Anticipation in the 21st century*. Taylor & Francis.

Open University. (2023). *Introduction to Islands in the Sky*. https://www.open.edu/openlearn/money-business/hybrid-working-planning-the-future/content-section-5.3

Ramírez, R., & Wilkinson, A. (2016). *Strategic reframing: The Oxford scenario planning approach*. Oxford University Press.

Ravetz, J. R. (2011). Postnormal science and the maturing of the structural contradictions of modern European science. *Futures, 43,* 142–148.

Rumelt, R. (2022). *The crux: How leaders become strategists*. Profile.

Saunders, G. (2021). *A swim in the pond in the rain*. Bloomsbury.

Sen, A. (2011). *The idea of justice*. Harvard University Press.

Spaniol, M. J., & Rowland, G. (2019). Defining scenario. *Futures & Foresight Science, 1,* e3.

UNESCO (2021). *Reimagining our futures together: A new social contract for education*. Report from the International Commission on the Futures of Education. https://unesdoc.unesco.org/ark:/48223/pf0000379707

Vickers, G. (1965). *The art of judgment*. Basic Books.

World Health Organization (2022). *Valuing health for all: Rethinking and building a whole-of-society approach*. https://www.who.int/publications/m/item/valuing-health-for-all-rethinking-and-building-a-whole-of-society-approach---the-who-council-on-the-economics-of-health-for-all---council-brief-no.-3

Matt Finch is an associate fellow of Saïd Business School at the University of Oxford, a former kindergarten teacher, and a strategy and foresight consultant at mechanicaldolphin.com. His previous public projects include workshop design and facilitation for the OECD, scenarios for the Australian energy sector, and foresight consultancy to the European Commission's Horizon-funded IMAJINE project on the future of regional inequality. Matt is also a member of the Strategic Foresight Expert Working Group for the

European cybersecurity agency ENISA. Matt has written on scenario planning for a wide range of popular, professional, and scholarly publications; his most recent research explored scenario planning for the post-pandemic university, strategy for public institutions in the turbulent landscape of US domestic politics, and strategizing across multi-organization international membership bodies in times of uncertainty.

Niamh Ní Bhroin   is associate professor in media studies at the University of Agder, Norway. She researches how the digitalization of society affects the everyday lives of children and young people. Ní Bhroin is a member of the EU Kids Online network in Norway and has helped establish the Center for Media Innovations at the University of Oslo. She has participated in national and international projects that investigate children's and young people's media use, and publishes and disseminates research on "screen time", "sharenting", media harm, and the digitalization of education. Ní Bhroin has a PhD in media studies from the Department of Media and Communication at the University of Oslo (2015).

Steffen Krüger   is senior lecturer at the Department of Media and Communication, University of Oslo, Norway, and a co-organizer of the Screen Cultures program. His research interests are located at the inter-sections between media and psychoanalysis, psychosocial studies and critical theory. Recent publications include *Media and Psychoanalysis: A Critical Introduction* (Johanssen & Krüger, 2022).