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Interregnum: Disruption and the in-between time for higher education

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Abstract

Higher education in the developed world is challenged and disrupted by shifts in public policy, economic and social issues, changing demographics and emergent technologies. Policymakers and leaders are beginning to imagine a different future for colleges and universities, one in which a new paradigm for teaching, learning, research and collaboration will need to emerge. The shift from a "business as usual" paradigm to a new one will take time and involve difficult challenges and disruption. The resultant "in-between time" (known as an interregnum) will be difficult for leaders to manage. It requires anticipatory governance rather than the dominant new public management forms of governance and courageous leadership, both of which pose challenges for institutions. This paper explores the implications of the paradigm shifts now underway.

Keywords

higher education; leadership; paradigm shift; organizational change

1 Introduction

Thomas Kuhn (1962) described how paradigms and frameworks in science change over time. Rarely are such changes smooth and straightforward. They are contested and resented, damaging and demanding for all involved. For example, the change from an understanding of how the earth's underlying geology was formed – the shift from Alfred Wegener's (1929) theory that the earth was once a single supercontinent which had gradually broken apart to the theory of plate tectonics where each "plate" has been moving for billions of years (Oliver et al., 1968) – was a hard-fought battle. So, too, was the development of the germ theory of disease by Pasteur or the more recent theories of gender (Dreger, 2015). What is clear in any such fundamental paradigm disruption is that incumbents seek both to hold onto their status as "paradigm gatekeepers" and that they will use a variety of methods to discredit emerging paradigms and those who advocate for them (Dreger, 2015). The messy time between the decline of support for a well-established paradigm and the securing of support for the emergent paradigm is known as an "interregnum" – the in-between time.

An established paradigm is based on a shared understanding of how a specific domain or phenomenon works – the normative and routine work undertaken, the methodologies and business processes typically used and found acceptable, the ways in which anomalies are explained and the general response to challenges or contradictory data and experiences (Anand et al., 2020). A paradigm delimits the ways in which one domain works from the way other competing paradigms operate. For example, within psychology, the approach of cognitive-behavioural psychologists is significantly different from that of, say, enactivist psychology (Meyer & Brancazio, 2022) or psychodynamics. Incumbents defend the boundaries between one paradigm and another, fearful that change would undermine the fundamental understanding that shapes and informs all aspects of their work. In higher education, the open admission and open university paradigm is very different from the highly selective competitive admission paradigm, which is much more normative. Similarly, the community college and polytechnic paradigms are seen as different from the university paradigm.

Paradigm change occurs due to one of three conditions or a combination of the three: (a) evidence shows that some fundamental tenets of the paradigm are no longer tenable – as in the example of plate tectonics; (b) the community of practitioners' values and mindset shifts due to generational shifts or increased inter-disciplinary understanding; or (c) the emergence of new technologies or social understanding challenges key elements of the paradigm, requiring change and development. Kuhn (1962) observes that to be accepted, the new paradigm must demonstrably solve challenges and problems which the "old" paradigm either could not or shows an ongoing deterioration in its ability to do so. Many incumbents who sustain the established paradigm resist and challenge the emerging paradigm (Barber, 1961; Beveridge, 1959; Kuhn, 1962), as can be seen in higher education (Battersby, 2019; Fleming, 2021; Ginsberg, 2011).

A paradigm in higher educational systems is constituted of existing commitments and related dynamics – universities and colleges, unions, government as investors, students with expectations, alums as investors – and established practice models for education and the dynamics of their interactions, and the adoption of common business practices. Colleges and universities use industrial production models – batched entry, common business processes (large classes, face-to-face teaching supported by some online learning), quality assurance through examination and peer review, and bell-curve assessments.

Despite significant differences in the cultural context in which colleges and universities operate worldwide, institutions appear remarkably similar in both what they do and how they do it across the world. The paradigm "works" and has been replicated as a set of "best practices"

despite strong evidence of inequities and lack of efficacy in many of the business processes and the pedagogic practices employed (Abdulbaki et al., 2018; Haxhiymeri & Kristo, 2014). Though change has been occurring since the arrival of digital technologies in the mid-1990s and the impact of the growth of online and hybrid learning, the dominant paradigm is still seen by many as the "gold standard" for what a college or university should be (Brink, 2018; Frank et al., 2019)

Table 1 below shows the paradigm of higher education that was dominant in the period 1960-2000.

Table 1: The established paradigm

Feature	**The established paradigm**
Methods of teaching	Lecture-based, Professor centred
Course delivery	Primarily on campus, synchronous
Curriculum structure	Discipline-driven (including boundaries within disciplines) and rigid
Assessment	Mid-terms and final examinations with frequent testing in between
Research focus	Discipline-specific, publish or perish, focused on individual achievement
Funding model	Government funding, student fee revenues and entrepreneurial revenues
Institutional structure	Hierarchical, bureaucratic, new public management
Student demographics	School leavers, some mature students predominantly full-time
Links to human capital markets	Focused on certificates, diplomas and degrees as credentials
Global engagement	Limited study abroad programs, significant presence of international students on campus

2 Challenges to the dominant paradigm

The dominant paradigm has been gradually changing due to a set of developments, some of which come from outside the institution and some from within. Five key trends and patterns are leading to a significant change in the dominant paradigm. These five trends and patterns are:

1. Concerns about funding and the medium to long-term viability of institutions and systems: Small changes in the number of international students, the retail price index, inflation, building maintenance costs or the costs of labour and pensions have made universities and colleges increasingly financially precarious. One private college or university closed every week in the US following COVID-19 (Marcus, 2024). Several established public institutions in the US, Canada, the UK, Australia and Europe face fiscal risk, with some facing bankruptcy, especially in jurisdictions in which the number of international students has been restricted by the actions of government. PwC (2024) – one of the worlds largest consulting companies - estimates that 40% of universities in England, Northern Ireland and Scotland will operate deficits in 2024-5.

2. Concerns about commercialization and competitiveness replacing academic integrity: In the Global North, universities and colleges have faced a continuous and steady decline in per capita income from government sources over a long period of time. To make up for lost revenue and to respond to rising costs, universities and colleges have aggressively pursued international student registrations and other sources of "entrepreneurial" revenues - as pioneered by Warwick University (Thompson, 2013). This has led to suggestions that the "marketization" of colleges and universities has lowered academic standards, lowered academic integrity and made the institutions so focused on financial and commercial outcomes at the expense of losing focus on purpose and academic integrity (Brink, 2018; Fleming, 2021; Frank et al., 2019).

3. Concerns about the lack of connection between learning outcomes and the skills in demand in each nation's economy: In the UK, the Office for Students (a government agency) has repeatedly challenged universities and colleges that offer degrees that produce graduates whose subsequent income is too low to trigger student loan repayments - and also courses and programs which have high drop-out rates. This UK regulator has threatened to fine universities that offer such programs up to £500,000 (or up to 2% of a university's qualifying income) (Adams, 2022). In part, this is about strengthening the connection between learning and skills in demand in the labour force, but it is also part of a quality assurance paradigm in which quality is assessed in terms of the subsequent earning power of graduates. This in itself is a major shift in the idea of a university as outlined by Cardinal Saint Newman (Newman, 1852) who saw higher education as about the pursuit of knowledge for its own sake and as a form of character building. The link between learning and skills in demand is also a concern for employers. A growing number of employers no longer trust higher education qualifications as an indicator of the potential capability of employees and are instead hiring on the basis of demonstrable skills and competencies, not qualifications (Fuller et al., 2022). Given the extent to which students use debt to fund their studies, many are now looking at the return on capital and beginning to think that the investment in a college or university long-program is not producing the return needed to fund the lifestyle they desire and are looking at alternatives.[1]

4. Concerns about emergent technologies, especially artificial intelligence (AI): Digital technologies, began to be deployed by universities and colleges in the early 1990s and became more ubiquitous over the decade that followed. In the US and Canada, since 2010, online learning registrations for college and university courses have been growing at a faster rate than registrations for face-to-face classes (Johnson, 2024). In part, this is because students are seeking greater flexibility as they balance studying with work and other commitments, but also because educational technologies have provided a platform for delivery and student support, which has been continuously improving since the first learning management system was launched in 1990. The more recent developments in AI, which are moving towards personalized learning and the availability of high-quality learner support on demand, challenges many aspects of the dominant paradigm. Artificial intelligence is widely used in higher education by both students and staff, but not always ethically. Issues of academic misconduct, plagiarism, and AI abuse are growing (Crompton & Burke, 2023; Dolunay & Temel, 2024). What is more, the ability to

[1] Office for Students (2018): Value for money – The student perspective. Office for Students. Available at https://www.officeforstudents.org.uk/media/3105/value-for-money-the-student-perspective-final-final-final.pdf

prevent or detect the use of AI in assignments, examinations and research publications is declining (Edwards, 2023; Fowler, 2023).

5. Concerns about the "platforming" of higher education: As universities and colleges adapt to the digital world, they increasingly offer "mix and match" learning opportunities – in-class, online, modular and stackable learning, short courses, boot camps and a range of services. Rather than "one size fits all" – the college or university of the 1960s – they are now becoming platforms offering student choice, like Shopify or Amazon. Indeed, several colleges and universities have outsourced their learning platform to an online program management (OPM) company, such as 2U or Coursera. This is how Arizona State University grew its enrollment in online and flexible programs from 400 students in 2010 to 73,000 in 2024 (ASU News, 2024). Many academic staff see these developments as the university exploiting their intellectual property for revenue.

To some, the combination of these factors, coupled with poor leadership and ineffective governance (Murgatroyd, 2024a; Paul, 2024), poses an existential threat to the idea of higher education and the purpose of colleges and universities (Komljenovic et al., 2024). What is more, governance processes are rarely anticipatory and are often slow (Kallo & Välimaa, 2024).

3 Patterns and Possibilities

AI and related technologies (robotics, 3D printing, analytics) present new opportunities to reimagine how higher education is undertaken and how time, space and collaboration will be implemented. While some may see AI as so transformative that it will bring an end to education as we know it (Khan, 2024; Postman, 1996), the reality is that educational institutions and eco-systems change slowly, if at all (Kilis & Murgatroyd, 2024). Rather than embrace significant change possibilities, the institutional instinct is resistance and obfuscation.

There are several ways in which AI-enabled technologies and other developments carry the potential to change the fundamental education and learning paradigm in colleges and universities:

1. An end to highly selective admission to increase completion and success rates: Current admission practices in all but open universities are intended to find the "brightest and best" based on high school examinations and other assessments. These are deeply flawed – leading to some 16% of students dropping out before the end of their first year (Guerra, 2022). The biggest flaw is that it has led to the under-representation of key groups in colleges and universities – single parents, Indigenous persons, minority language speakers or those whose first language is not English, newcomers and immigrants, and persons with disabilities.

2. An end to content-based "instruction": Lectures and similar "sage on stage" processes are ways of presenting content to students, often using cases, exemplars and humour to bring content "alive" and ensure its currency. AI enables access to content in all media at any time, for any level of learning, anywhere.

3. An end to semesters and time-based credits: The 1906 Carnegie unit for credit (1 credit = 15-16 hours of formal instruction plus 30 hours of self-study for a total of 45 hours) remains the basis for university and many college courses (Shedd, 2003). Most academic courses are three credits. This is now much more about managing faculty workloads and collective agreements than about student learning and learning outcomes. The Carnegie Foundation itself now questions whether this approach to time-based learning is relevant currently: They recommend a focus on learning, engagement, and outcomes.

4. An end to simple reading assignments: Now that students can use AI tools to summarize any text or multimedia material, reading long academic papers and books is somewhat redundant unless the purpose is textual analysis and reinterpretation of text (which AI tools can also undertake). Students will make increasing use of summarizing, compare and contrast, and analytic tools to read materials for them and highlight the issues that the material suggests require their attention.
5. An end to assessments which rely on individual responses: Given the challenge of ensuring that the individual submitting the assignment is the author or creator of the work, there is a growing need to reimagine assessment (Murgatroyd, 2018, 2019).
6. An end to the idea of academics as "knowledge masters": The idea of a tenured faculty member (of itself a growing anachronism) as an expert in their field is increasingly problematic. In the 1950s, medical knowledge was doubling every fifty years. According to IBM's analysis, by 2020, it was doubling every 73 days. Now, in 2024, in the age of AI, it is doubling every 11-12 hours[2]. It is impossible to be "on top" of the knowledge available in a specific field of expertise. In 2022, approximately 5.14 million academic papers were published, an increase of 22.78% from the 4.18 million in 2018.[3]Trying to stay current has become impossible. Academics create distinctive pathways and provide insights, but most importantly, they provide role models for how to tackle a discipline and assess the veracity of research within it.

There will be other challenges to the business-as-usual paradigm, which will be resisted with vigour and determination, with issues of "quality" and "integrity" weaponized against change and innovation (Murgatroyd, 2024b). Indeed, some of these moments of resistance are already appearing (Butterfield, 2024).

Other pedagogical developments are also causing the established paradigm to shift. These developments include a strong focus on equity and inclusion, de-colonization (especially in Commonwealth countries), gender sensitivity and work-based and community-based learning (Cormier, 2024). While some are sceptical that the curriculum and teaching shifts seen around the world represent fundamental change – subtle and nuance shifts within a paradigm are not the same as paradigm shifts –the underlying feature of many of the current developments is that they are drawing attention to the frailty of "business as usual" and challenging some of the underlying assumptions about teacher roles, student agency and the nature of knowledge.

4 Emergence and Possibilities

As financial concerns amongst college and university administrators grow and as governments continue to either freeze or reduce per capita funding (Usher & Balfour, 2023), leaders in colleges and universities are beginning to imagine a different future. For some, this could mean "rightsizing" through program closures and staff reduction; for others, it may mean re-purposing; for others, it may mean full or partial closure. The next decade will be difficult and demanding for leaders and policymakers (Murgatroyd, 2024a; Paul, 2024). Five key possibilities appear to be emerging:

1. Mergers and acquisitions. This is already becoming a discernable development with acquisitions in the US (e.g., the University of Arizona purchase of Ashford University)

[2] See https://www.linkedin.com/pulse/human-knowledge-doubling-every-12-hours-amitabh-ray/

[3] See https://wordsrated.com/number-of-academic-papers-published-per-year/

and mergers in South Australia, the UK, Finland, and Singapore. Reducing duplication, securing economies of scale and rationalizing program delivery is also happening (Georgieva & Abdelazim, 2020).

2. A reimagining of the college or university as an accreditor of learning, no matter where or when that learning took place. This approach gives emphasis to what students can do rather than to time-based learning and instruction. This approach leveraged three decades of experience in prior learning assessment and competency-based assessment for credit at Western Governors University, The Open University UK and Athabasca University in Canada, as well as India's National Programme on Technology Enhanced Learning. This also aligns with a significant growth in skills-based hiring by some of the largest companies in the world (Fuller et al., 2022).
3. A collaboratory between industries with the need for highly qualified people and colleges and universities able to meet needs and expectations. We see this in the collaboration between IBM and community colleges, Siemens mechatronics programming in colleges and universities worldwide, and the Singapore Skills Future initiative.
4. A global network of like-minded institutions which share learning and assessment so as to reduce operational costs and increase access. These began to emerge following the first phase of massive open online course (MOOC) development – e.g. the MIT and Harvard partnership with edX – and are now gaining new momentum. For example, the Asian Universities Alliance involves fifteen universities from fourteen countries seeking to strengthen collaboration, faculty development and the co-creation of courses. Open Universities Australia and OntarioLearn are similar operational collaborations in which online courses are pooled and shared across institutions, with recruitment and support centralized to lower costs.
5. AI-enabled centres for personalized learning and skills development are available. Sam Altman, CEO of OpenAI, and Sal Khan, founder of the Khan Academy, have both advocated for a new model for education from Kindergarten to PhD. They see generative AI as able to offer all levels of learning, expert and peer support and assessment through adaptive individualized instruction and intend to launch a range of services aimed at making learning available at low or no cost in multimedia formats with support networks worldwide (Khan, 2024). Some private providers are exploring the potential of these developments for new approaches to accredited learning.

When taken together, these five developments pose challenges to the existing paradigm but do not yet constitute a new paradigm that is either operationally or financially viable. Change is a work in progress.

When we look at the established paradigm framework introduced earlier, we can now explore what the emerging paradigm looks like in Table 2 below.

Table 2: The established and emergent paradigms

Feature	The established paradigm	The emergent paradigm
Methods of teaching	Lecture-based, Professor centred	Active, engaging and authentic student learning – project-based learning, work-based learning and other forms of deep learning.
Course delivery	Primarily on campus, synchronous	Blended and online learning with asynchronous and flexible learning options. Students can "mix and match" how they learn.
Curriculum structure	Discipline-driven (including boundaries within disciplines) and rigid	Increasingly inter-disciplinary and cross-boundary learning within disciplines.
Assessment	Mid-terms and final examinations with frequent testing in between	Continuous assessment and project-based assessment, with a larger number of formative assessment opportunities.
Research focus	Discipline-specific, publish or perish, focused on individual achievement	Collaborative, interdisciplinary team-based research, with an emphasis on impact not just publications.
Funding model	Government funding, student fee revenues and entrepreneurial revenues	Increasingly diversified revenue streams, funding through partnerships and alliances, and less reliance on government funds.
Institutional structure	Hierarchical, bureaucratic, new public management	Flatter, more agile, responsive and resilient.
Student demographics	School leavers, some mature students predominantly full-time	More diverse, older students balancing work, life and family through part-time and flexible programming
Links to human capital markets	Focused on certificates, diplomas and degrees as credentials	Shift towards competency-based assessment, "product" portfolios and testimonials.
Global engagement	Limited study abroad programs, significant presence of international students on campus	Comprehensive strategies for internationalization – e.g. diploma and degree multi-national partnerships.

5 Emergence and anticipatory governance

These developments respond to the concerns explored earlier in this paper. They are opportunities amidst a sea of challenges. The tight circle of decision-makers in higher education - the leadership oligarchy - will be increasingly challenged to respond creatively and innovatively to volatile, brittle and uncertain conditions. Risk management will be at the forefront of their minds.

How are colleges, universities, and policymakers responding to this emerging future? Responses are conditioned by the process of governance, which, though responsive, is often reactive rather than anticipatory (Carvalho, 2020). The new public management regimes developed around the world in the 1980s that focus on accountability for specific performance requirements – employability of graduates, cost management, quality of instruction and research productivity (Liang, 2024) – are poorly designed to respond and anticipate rapid and substantive change. These governance regimes are themselves changing as more networked forms of governance begin to emerge (Stransky-Can, 2023). Indeed, some have suggested that the dominant governance paradigm of new public management is no longer fit for purpose (Haugen & Olsen, 2024) and that new models are needed to take full account of commitments to equity and inclusion, collaborative research, sustainable development, technology management and the need for close alignment with the needs of the human capital market. These pressures are fracturing "old" governance models and require a new approach, one that builds trust and commitment both within and beyond the institution (Navi & Maradi, 2018).

As universities and colleges begin to anticipate the future, they recognize – as do the consultants employed to advise them in growing numbers (Shore, 2024) – that the future requires new approaches to governance – more decentralized, more entrepreneurial, more responsive to specific needs, more flexible, more creative, more digital, faster, smarter. The one-size-fits-all design for courses, programs of study, assessment and admission – needs to be reimagined in the light of new possibilities. Students, faculty and others closest to the "action" need to be empowered to make decisions and accept risks (Sturm & Turner, 2017). Differential fee structures, the ability to make local arrangements and "deals" to enable continued innovation, and focused teaching, learning, and research are all features of the emergent paradigm.

The risk analysis methods currently used by institutions focus largely on operational and reputational risks. What is needed is a more robust approach to risk, which considers the high probability of "black swan" developments coming from those who fully embrace AI and the technology-enabled learning future, backed by very significant amounts of investment (Khan, 2024) as well as the emotional risks associated with a failure to manage change and transformation effectively (Aven, 2014; Slovic, 2010). The biggest single risk to a college or university at this time is the desire to maintain "business as usual" in these unusual times.

6 Conclusion

It is not yet clear what the emerging paradigm for higher education might be in each nation or system, but it is clear that the paradigm that existed before the COVID-19 pandemic is being gradually replaced by new models and prototypes, such as that seen at the Tecnológico de Monterrey, where new models of teaching, learning and community engagement now shape its core work (Oliveres, et al., 2021). Minerva University, based in the US but operating globally, is seen as the most innovative university in the world – its small group, seminar and problem-based learning model breaks the mould for what teaching and learning look like (Cannon & Kosslyn, 2024).

The next decade will see more experiments, risk-taking and innovative approaches to the way in which a college or university operates. Some will fail. Some will learn from failure and reimagine their ways of operating. Most will "watch and see". This time is known as an "interregnum" – an in-between time when new ways of working are emerging and "business as usual" becomes increasingly non-viable. It is a challenging and often messy time. A time that requires courageous leadership (Phillips & Phillips, 2020).

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All roles associated with this article were by the author.

Competing Interest

The author has no competing interest to declare.