



University Estates and Postdigital Higher Education: Space, Place, and Being a University

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Abstract

Estates are a key interest for universities. In an era of postdigital higher education dominated by cost, benefits, and a pursuit of value, the relations between the estate and the university are again in question. Drawing from literature on postdigital higher education, university facilities, and study of university built environments, this paper extends current debate on university estates and facilities using a space and place lens. An introduction outlines the key texts and questions for this paper. After, space and place are conceptualized and defined. These concepts are then used to revisit university estates and facilities a literature, primarily focusing on the United Kingdom and drawing on complimentary and contrasting work from the United States. The influence of material space(s) for placemaking in universities is a key focus. Subsequently, the paper challenges the influence of performance based discourse and performativity for the forms, function and stated purpose of university estates and facilities. A concluding note highlights university estates and facilities as key to concepts and practices of being a university.

Keywords Universities · Estates · Facilities · Postdigital education · Engagement

Introduction

What influence do estates and facilities have on staff and student engagement? This paper explores the influence of university facilities for engagement in and with postdigital higher education. The idea emerged through a series of formal and informal meetings by the author with colleagues from a set of universities in the United Kingdom (UK) and United States (US). These formal and informal, place-based and online meetings were held between 2019 and 2021. During this period, a discourse of disruption and sharp change in policy, planning, and practice of university facilities relating to the impacts of the Covid-19 global pandemic enveloped universities

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across the globe. With lockdowns across the UK and US, scholarship continues to make sweeping assertions about the forms, functions, and stated purpose of universities. From *Being a University* (Barnett 2010) to the changing ecologies of learning and practice for educational environments (Barnett and Jackson 2019) and learning spaces (Savin-Baden 2008), to tracing the emergence and complex history of Oxbridge (Salter and Tapper 1994; Stone 1974; Tapper and Palfreyman 2005) and the physical university (Hoelscher and Harris-Huermann 2019; see also Temple 2014), there is no shortage of lenses, theories, and ideas about the social, political, economic, and material *being* of universities.

Alongside these lenses, some of the more contemporary literature and research focus on university activities in dynamic relation to local, regional, national, and international pressures, including student numbers, access and participation in and with student residential accommodation, governmental funding regimes, recruitment, and retention (Ritzer et al. 2018). Literature and research posit several internal and external drivers as contributing to a McDonaldization (Hayes and Wynyard 2002) of university teaching, learning, research, operations, and university facilities. As Ritzer et al. (2018: 1) note, ‘a key dimension of McDonaldization is the “iron cage” of control, via rationalization’. Within this lens, every aspect of a university is up for interrogation. Even so, university education persists as a human social activity. Does technology augment or otherwise influence this fundamental principle of the university? In an era of postdigital higher education, what calculus counts for university estates?

Costs, Benefits, and the Pursuit of Value in University Estates

University estates are a substantial line-item in university budgets. In the UK and US, in 2021, the Association of University Directors of Estates (AUDE) reported the size of university estates across the UK rose from 20,589,170 to 20,924,549 m² or 335,379 m² between 2018/2019 and 2019/2020. AUDE (2021) measured expenditure at 623 mln GBP for estate repairs and maintenance. Energy expenditure for university estates at 391 mln GBP AUDE (2021). In 2018/2019, capital expenditure was 3.26 bln GBP across all institutions. This fell to 2.639 bln GBP during the 2019/2020 fiscal year as universities absorbed the cost-reduction measures relating to what continues at the time of this paper to be an ongoing global pandemic (Covid-19). The Higher Education Statistics Agency (HESA) (2022) traced total expenditure of higher education institutions in the UK at 44.9 bln GBP, with estate capital expenditure making up approximately 10.7% of total university expenditure for the year.

According to the HESA (2022) data, between 2016/2017 and 2020/2021, student numbers increased from 2,376,975 to 2,751,865. Across all HE providers and HE staff categories, there were approximately 224,530 staff members, excluding atypical staff members, working in some capacity for a higher education institution. As noted in an earlier study by Caird et al. (2015), salaries formed the top-line cost for universities and other higher education institutions. University facilities, the second highest cost to universities after staff salaries, are an obvious point of focus for university administrators, trustees, staff, faculty, and students (Caird et al. 2015). The Education Reform Act of 1988 transitioned the University Grants Committee into the Universities Funding

Council, radically reducing the public funding of university estates that defined the development of universities in the UK (University Grants Committee Block Grants) (Shattock 1994). These block and land-grants were vital to the *startup* physical and financial capital of universities across the UK. Now, universities work tirelessly to quantify and qualify their teaching, research, and estates. Through a series of exercise, work to correlate and rationalize inputs (funding streams, students, staff) and outputs (knowledge generation and dissemination, degrees) feels interminable.

Recently, a consortium of AUDE, Willmott-Dixon, the Higher Education Design Quality Forum (HEDQF), and a number of other stakeholders have started a project to study the influence of university estates and facilities for student outcomes. The authors note 'Campus spaces and places: Impact on student outcomes' is 'a narrative overview of the key international insights into the potential impact that the design and use of campus spaces and places can have on student outcomes' (AUDE 2022: 6). The paper focus on the US and UK, with several contributions for Europe, Africa, Australia, and Asia. Highlighting exigent literature and research on university estates and student outcomes, the key themes and issues presented in the paper include student engagement, student satisfaction, quality of life, student retention, and attainment. Drawing from exigent literature and research, exploratory workshops, and focus groups, the working paper highlights some key areas (past, present, and future) for study of the relations and interface of university estates, facilities, staff, and student outcomes. Clearly, the relationship of university estates, facilities, and student outcomes is central to current debate concerning universities.

This McDonaldization of university education, and by extension the facilities that underpin university education activities, often positions universities as providers and students as consumers, exasperating the rise of what may be called a McUniversity (Ritzer 1996). In a postdigital period of higher education history, the focus is on the integration of technology in teaching, learning, and research, and quality assurance in the form of continuously assessing university practice against frameworks of (research, teaching, and knowledge exchange) excellence.

In a postdigital era of university education, *what role does the estate feature in the rhythms, rituals and routines of being a university?* (Lefebvre and Harvey 1991) And what value do students, staff, and the wider public derive from the material environments (spaces) transformed into places through use by students, staff, and the wider public? At a time when Government policies, planning, and practice focus on *value* for money, what value are university estates and related facilities providing students and staff? Additionally, what might be made of the space between the places that compose a university estate? Much is made of the material and the social; however, the material and sociospatial draw heavily from the open space (green and brown) that allows for the interlocutor of space and place.

University Estates: from Learning Spaces to Place

One key thread of literature and research relating to university estates focuses on material spaces and space use in universities. Space use in universities by staff, students, and visitors has been described by Temple (2014) as the human social

activities that transform space into place. A number of others have also written about space and place, focusing on the diverse ways in which individuals and groups activities (studying, researching, and working) in university estates transform the material spaces into places. Admittedly, a key question for this lens is, what exactly the authors mean when they imply activity translates space to place. In other words, is what is being assessed the ways spaces are used and utilized? Alternatively, are the activities (teaching, studying, researching) what is being assessed? And it is the activities undertaken that make otherwise empty classrooms, labs, libraries, cafes, and hallways into these places? Places that define what have historically and traditionally been called the activities of universities.

Excellence of university is a race to the bottom, piledriving for efficiencies, generally read as ‘do more with less’. Drawing on theoretical and operational work, a focus and privileging of financial drivers and interests relating to university estates has become central to debate surrounding universities. A focus on the financial value of university facilities discounts a history of university facilities as fundamental to the social, cultural, and political influence of universities to their local, regional, national, and international fields of interest. These interests, internal and external, for universities balance teaching, learning, and research with recruitment, retention, access, and participation.

Taking these notions of space and place and applying them to the university, I engage with some key ideas, themes, and issues emerging from the literature on university estates I encountered during my research and review. The university as a space, continuously under pressure to negotiate in and between *capitals* (individual, group, social, economic, and reputational), highlights university estates and facilities as key resources to the practices of universities.

Facilities

One of the clearest and most demonstrable metrics for university space and place are in the form of facilities. Costs to maintain and sustain university estates are only exceeded by staff salaries (KPMG LLP 2019). From university websites to on-site estate projects, university estates are front and center in creating, developing, and sustaining university capitals (economic, social, reputational) (Klewes and Wreschnick 2009). While university estates are considered key to our understanding of university ‘space’, the use of university spaces transforms these material/physical and built environments into places where students and staff, community members, and visitors locate their idea(s) and ideal(s) of a university (Temple 2014). Space can be inspirational, attractive, and bring promises of future success and other desired experiences which attract students to geographically move, take on debt, and immense risk now associated with the non-guaranteed outcomes of higher education.

Temple (2017) explores the effectiveness of university estates to develop and sustain an idea of a university in a material sense. Citing an opportunity to study the influence of university estates for university effectiveness and efficiency, Temple focuses on the forms, functions, and stated purpose of university built environments

(teaching, learning, research, and so called third-spaces). In *The Physical University: Contours of space and place in higher education* (Temple 2014) positions pressure on university facilities as a consequence of shifts in policy, practice, and social expectations. Policy and planning have been revised in a discourse to widen access and generate further participation in university education. Unsurprisingly, moving from elite to mass to universal university education without a concomitant increase in funding for facilities to augment growing numbers of staff and students has a cascading influence on the budgets and finances of students, staff, and universities alike (Rudd 1980). Grant and aid are increasingly under pressure, often being transitioned to loan systems (i.e., US and UK). And university funding bodies (Higher Education Funding Councils, Office for Students, Department of Education) have been creating performance frameworks (Research Excellence Framework, Knowledge Excellence Framework, Teaching Excellence Framework, NSF, GRF) to define, assess, and fund current and prospective projects. Ostensibly, these funding models and regimes creep into the definition of what is valid and valuable research, knowledge, and teaching in university spaces.

In this environment, universities are using facilities to differentiate themselves. The pursuit of new (and renovated) teaching/learning, research, and residential spaces has been dubbed a *facilities arms race*, positing facilities within a wider range of institutional obligations to respond to a growing diversity in public, private, and partnership (public–private) funding of university estate developments (McClure 2019). University estates emerge as one means of defining and differentiating an institution from its peer group (i.e., Civic Universities, Russel Group, Post-1992, Public Land Grant Institutions, Ivy League) institutions seeking to create a story and identity using their built environments as a visual language of expression.

Callender et al. (2014) note that university estates are critical to the identity and organization of historical and emergent university-related activities. Managing a university's estate, facilities, design, the student and staff experience and university effectiveness have become intertwined. Marmot (2014) highlights the enduring legacy and importance of university estates for students, staff, and visitors. From Bologna to Paris, Oxford to Winchester, institutions are thriving in one of the most persistent global growth sectors of the twentieth and twenty-first centuries (Dua et al. 2020).

While the physical estate continues to be a key driver of student and staff recruitment and retention, university estate facilities and built environments have limits. Namely, as growth in student numbers have risen in relative and absolute terms, pressure on student housing provision, teaching, and learning spaces and allocation systems have pressurized institutional estates and their physical capacities (HESA 2022). Marmot (2014: 58) notes: 'the role of the university estate[s] in enhancing or lowering the student experience, the staff experience and effective learning [makes a] case for evidence-based and consultative approaches to the creation, management, and operation of university estates. While facilities are part of the material, psychological, and social environment of universities, the influence of the built environment on student and staff experience and engagement remains an open question in need of further empirical study'.

Facilities and the Postdigital

Questions about the use(fulness) of facilities in an era of postdigital life are emerging. The present is full of blurring and blended learning spaces (Lamb et al. 2022). Universities are negotiating a contentious period of intense physical and material space revision. As a push for hybrid and messy ways in which students and staff now learn, work, and live persists, how can we know the influence and value of university facilities if we lack data and evidence upon which to evaluate and assess their impacts? How are university leaders and administrators to quantify and rationalize material, physical university space drawing intensely from capital budgets and resources? Organizations like the HEDQF and AUDE (2022) are picking up on renewed interest in this area of research. Their project on the influence of the university estate and built environments for student outcomes is one example of a growing and diverse range of interest groups aiming to explore, research, and understand the linkages between the university estate and facilities and student (and staff) access and participation outcomes.

While *smart campuses* (Hipwell 2014) are gaining popularity, the notion that high-speed Internet, smartphones, and tablets will replace material spaces such as libraries runs counter to nearly a century of persistence of the material and physical university (Stone 1974). The smart campus and Internet of things may have a strong value in current forms and models of a university; however, technology is a tool to augment and does not replace the critical value of facilities and estates for universities activities.

The influence of digital technology on ideas and ideals, values and principles for teaching, learning, and research is emergent and complex. One of the key concerns and considerations in an era of postdigital university practices, the Internet, and smart campuses is how these technologies are scrapping, storing, and maintaining data from students, staff, faculty, and members of the wider public. Williamson (2014) is concerned with the encroachment of private corporations (Facebook, Google, Microsoft) on the methods and methodologies of digital practice for teaching, learning, and research in postdigital higher education. Moreover, he wonders how influential these organizations may become in the construction, organization, and operation of teaching, learning, and research using digital technology. Similarly, Knox (2014) posits that as digital technologies accelerate and their integration in university activities (teaching, learning, and research) deepens, how will the absence of planning and policy to moderate the use of digital technology in universities influence student, staff, and university practice. Will large corporations become substitutes for state investment in university infrastructure? Will the Bill and Melinda Gates Foundation no longer fund projects, but rather whole departments, entire buildings for the exclusive use of a few natural scientists? As ever, a concern for the funding models, the political, and historical drivers of university infrastructure decision-making is in demand. The tradeoffs and compromises from books and libraries for tablets and smartphones remain opaque and moving towards postdigital university without knowing where university administrator, staff, and student choices guide university practice is a moral and ethical quest in need of immediate attention.

In a time when too much information may be too readily accessible, constructing how to search, what to focus on, and how to present what is encountered in a systematic and cogent manner is an art and skill (Jandrić 2019). Data-driven is only as good as the people who implement the tools. Algorithms are great at replicating

their *questions* and cataloguing ‘responses’. But it is students, staff, and the wider public enmeshed in these who are generating novel ideas and questions at the intersections of physical-material, digital, and postdigital space.

Considering student numbers and changing student population demographics and characteristics (Lea 2015), university facilities define the physical, material environment of and for universities. Alexandra den Heijer (2005) highlights the pressure on university estates to perform, by returning on their investment. First, to signify a place where teaching, learning, and research are primary activities. After, to support the placemaking of students, staff, and visitors to an institution. Moreover, to respond and be nimble as both the spatial and physical requirements of a university to perform for students, staff, and visitors continue to emerge and complexify across time. Especially, as we look at the direct and indirect, measurable, and non-quantifiable influence of university facilities and estate on current and prospective staff and students. Facilities, space, and place are now being repositioned and reframed in relation to performance and functionality for internal and external stakeholders (Lamb et al. 2022).

Learning Space Performance

Conceptualizing the university estate and learning space performance has become a key debate in contemporary postdigital literature. Lamb et al. (2022) argue for a more nuanced understanding of learning environment. To counterbalance a focus on the physical dimensions and contents, or over-emphasizing teaching and learning practices, the authors suggest recognizing ‘learning space as contingent on a complex and shifting assemblage of human and non-human actors, which extends beyond the immediate concerns of pedagogy to include, among other things, university strategy, government policy, commercialization and ... technology’ (Lamb et al. 2022: 3). Even so, there is a strong case to be made that the dimensions which influence university estates and related learning spaces. University estates and their related learning environments are complex and contingent to the institution itself; the work also raises into relief a key concern. In this work, the material environment maintains (at least superficially) a durability that constantly changing individual and groups do not. The authors posit that postdigital learning spaces are more than their material basis, how does this assemblage theory capture the similarities and differences, compare and contrast how these material environments are used (and disused or unused)? In other terms, space (material and social) may hold as much value and relevance empty as it does be used. This tension between ‘empty’ and ‘full’ space is an artifact of the material university carried into the postdigital era of higher education.

The performance of space has a cascading influence on staff and student placemaking within universities. Carnell (2017) explored the link between educationally purposeful activities and an evidence-based fit-for-purpose university estate. The paper explicitly states it does not address ‘the intersection of digital spaces and education enhancement ... [rather] ... the paper takes a holistic approach to educational space which recognizes the whole campus as a place where continuous flow of formal and informal learning can take place’ (Carnell 2017: 1). The research project from which the paper draws examines staff and student feedback on the university learning space strategy and the learning spaces as material environments. Findings

from the paper forged a critical note on what Carnell calls a thriving research-based education physical environment, including informal spaces for social connections, formal spaces for collaborating and connecting, spaces that are flexible and varied, and defined assessment and exhibition spaces (Carnell 2017: 10).

Assessing Learning Spaces

How can universities assess their learning spaces? What defines a quality learning space? Who decides what a quality learning space is? And can individuals and institutions understand how learning spaces are translated into places for teaching, learning, and research through the practices of students, staff, and others who interact with and use their material and digital environments?

Carnell (2017) assessed staff and student attitudes and perceptions towards the fit-for-purpose nature of teaching, learning, and research spaces in a research intensive university. In his work, he argues the material-social-personal nexus of learning space performs better when there is a clear and definable assignment of material space for specific uses. Lecture theatres for large lecture-based classes, small break-out rooms for small sections, and informal study spaces where students can do academic work and meet informally with others. Defining what a learning space is, is key to assessing and understanding the influence of the material-spatial on the individual and the individuals' interactions with those spaces.

University estates and learning space performance continue to gain interest. Evidence of the interest in the influence of university estates and facilities for the material environment precedes what teaching, learning, and researching are completed within it. While digital tools and technologies may augment this materiality, and they do, technology (as yet) does not substitute for individuals and groups interacting at various time/space intersections for teaching, learning, and research practice. Discussing the university estate and learning space performance cannot be conceptualized in a vacuum. The material environments, from the architectural conventions to the infusion of digital infrastructure and technology, call out for further inquiry. As the HEDQF and AUDE argue in their recent report on university environments and student outcomes, the material, social, and technological intersect in university estates, learning environments, and spaces (AUDE 2022). Even so, the hierarchy of values and principles highlights how the material is often underestimated for its influence while postdigital debate overestimates the short-term value and influence of digital technologies for university education, it may also drastically underestimate the long-term value of human–human and human–environment interactions (augmented by technology, but irreducible to it or a set of dimensions self-selected and reified) as Lamb et al. (2022) have proposed in their discussion on the digital technologies 'shaping and being shaped by, learning spaces and practices in postdigital learning spaces of higher education institutions'.

Space, Place, and Being a University in a Postdigital Higher Education Landscape

Postdigital higher education has several interpretations, extensions, and lenses. In their work, Lamb et al. (2022) note, it has never been more critical to examine and understand the forms, functions and stated purpose of learning spaces. For example, Boys (2022) examines the influence of spatial inequality on the influence on learning spaces practices. Specifically, how pedagogy needs major revisiting to understand what learning is in virtual and physical environments. Similarly, Goodyear (2022) argues for the realizing of a university we desire through questions of design justice, educational infrastructure, and social innovation. While these approaches highlight several key tensions, drivers, and debate the dimensions influencing the material and sociospatial environment of university estates, they would also benefit from further discussion of *who* might influence their respective aims and objectives and *how* values and principles could be imbued into the material and sociospatial environments of which the authors speak. Imagining a more equitable university estate requires a concerted and ongoing interest in the influence of policy and planning for university estates and learning spaces in postdigital university teaching, learning, and research spaces.

One of the single most influential counterbalances to the McUniversity Ritzer discusses is the intra- and inter-group diversity in facilities in and across universities. For example, visiting central London, I am struck by the variance between universities. University College London-Bloomsbury, the London School of Economics, and King's College London are all within walking or short transport of each other. Still, the material environments of their estates and facilities vary dramatically. The architectural conventions, and the strategies to create, obtain, and maintain the university estate is evidenced across all three institutions. Even so, University College London is a far cry from a campus university. Instead, the University College of London estate is embedded and disbursed across Bloomsbury (and now east, towards Queens Park in east London). Just afield, the London School of Economics is another heavily gated assemblage of buildings, some from the original founding of the institution and others currently under construction. Just down Southampton Row, King's College London has its central building and related sub-buildings where pockets of researchers and research groups are housed.

This paper in many respects is attempting to offer a counterweight to technology defined higher education. To counterbalance what the authors perceive as an overly optimistic view that technology and new technological toolkits of the postdigital university have ushered in an unprecedented era of learning access and participation. As Williamson (2014) and Knox (2014) caution, technology can not only be an incredible tool and toolkit, but it can also be an unruly master. If technology is treated as a substitute for human-to-human interaction, rather than a mediator of human-to-human (and human–environment) interactions, it is possible to overestimate what these tools can and should do for learning spaces and learning environments. While simultaneously underestimating the tyranny of tools such as Google Search, Bing, Firefox, ERIC, and other digital search engines is this myth they offer boundless access. In reality, they are tools to sell not apolitical objects aimed at the

social and collective good of societies and civilization. Unchallenged, these tools have become associated with generating unprecedented number of access points. If a student or staff have a mobile phone, they can learn anything. If a student or staff have access to a PC and a robust wireless connection, the universe is limitless. This discourse marginalizes the realities that high-speed Internet, personal computers, and understanding what these tools are, and more critically, how to use them critically remains a key issue in need of further reflection. A strong set of cases that more opportunity does not always unfold into better outcomes for students, staff, universities, and the broader commons (Ostrom 1990).

Sustainability continues to be in the foreground of university estates and facilities debate. Government policy aiming to incentive the refurbishment of, and development of more sustainable built environment is a key area of interest for universities, cities, regions, national, and international groups. AUDE (2021) and HESA (2021) continue to focus on how the estates management data they generate in partnership could be used to support evidence-based university estates decision-making. Even so, there is a cautionary tone and tale in this work. The global population continues to rise, and the number of citizens who are demanding on universities is stable. Unless there is a substantive reduction in the enrolment of university students for a protracted period of time, incentivized by national, regional, and local policies, there will continue to be an incentive to participate in university education. The rising cost to the individual for university participation has not yet created a robust disincentive to reduce total enrolment figures. One need only read the paper to see public and private universities bragging about the wild number of students applying for a university place. The fact that this continues, even as costs of attendance (tuition, fees, housing, transportation, maintenance) continue to rise in both real and adjusted terms (Dearden et al. 2011), signals demand for university education, specifically, material university education is robust. Further, the presence of university estates precedes the digital turn, and underpins the ability of the digital university to exist writ large. As such, the presence and absence of student and staff in university estates pose real issues for the forms, functions, purpose, and use of university estates for staff, students, and the wider public. Estates face several comparable issues relating to their sub-urban and urban estates, campus and city estates, public transport links, teaching space, research space, and study space allotments. Generally, there continues to be sustained pressure on the university estate as more students are enrolled, more staff are employed (faculty and non-faculty), and the wider public demands further transparency over where and how public funding for university estates is being utilized.

Rudd's (1980) cautionary tale on Government funding of university estates offers insight into the tradeoffs and compromises of diverse funding models for university and non-university facilities. Specifically, the influence of developing and maintaining university provided residences. He was skeptical of the abstract value being associated with universities providing student residences, and the drag on other funding related to developing and maintaining student residences. Instead, he proposed a bifurcating of funding

(university and non-university post-compulsory education). He also highlighted how funding steered towards residences was choking off funding to non-residential facilities that better served what he argued were the core functions of the university (teaching, study, and research space). Even so, knowing the contents of the black box that contains all the line-items for Government budgets for universities does not necessarily secure clarity over whether, and how, university estates and facilities will be funded, nor, that funding university estates and facilities undercuts university spending on non-residential activities. Ostensibly, data notes university estate costs are the second highest line-item in university budgets after staff salaries (Caird et al. 2015).

While university estates substantively influence university budgets, surrendering the material and sociospatial of space and place to the digital is overly optimistic. As evidenced by the number of staff and students who have returned to campus during and after campus closures for the Covid-19 global pandemic, the tractor beam of university estates for staff, students, and the wider public has not been diminished. Quite the opposite, students and staff are returning for the social and individual relations they maintain in and across their respective institutions. While scholarship has been focusing on the rise of the machine and the digitizing of everything university, the reality varies from the ambitious speculation that university estates are no longer as critical as they have been across history. Much to the dismay of ideologues, university estates persist as key centers for the human social activities of university education.

The rise of the digital and the postdigital turn in higher education has not rendered the university estate and material spaces less relevant. If nothing else, it has amplified the relevance of the material for the human social activities of teaching, learning, and research. As Lamb and Ross (2021) note, the Covid-19 global pandemic causes a sharp change in attitudes and perceptions towards the importance and influence of the material university. Even so, the short-medium term evidence is this did not diminish the desire for a material, estates based university education. Instead, it highlighted the nuance and range of value and importance individuals, and groups give to the material university. The university estate and related facilities are not these inert built environments. The learning environment is a semi-permeable material, social, personal, psychic, emotive, spiritual, and astral intersection. The built environment is a material representation of what universities value. The material spaces that make up the university estate and its facilities do not simply exist, they are embedded in the routines, rituals, and rhythms (Lefebvre and Harvey 1991) of staff, students, and other guests of the university. The postdigital offers opportunities for study of the influence of the university estate and facilities for student and staff teaching, learning, and research outcomes. The digital toolkit currently availing itself focuses on pedagogy, teaching, and learning modalities and methods. All of these are critical exercises. But it is my earnest hope that this paper makes a case that what the digital offers university estates and facilities is an opportunity to unlock and better understand how these material sociospatial environments influence students and staff now and in the medium and longer terms. This would be a digital turn worthy of any university.

Concluding Note

This paper has traced some key drivers, debates, and tensions relating to university space and place. From the cost-value propositions scattering across the discursive landscape to the more specific lenses on the influence of a digital turn for conceptualizing and studying *being* a university. Across the literature and research encountered in this paper, an undercurrent reaches for more imagination. Looking too far into the past offers little to the current pressures of costs, material-physical space constraints, student and staff population booms and busts shaping our current contexts. A sheer lack of empirical evidence on the relationship of the material-physical university to the social and individual meaning and purpose derived from participating in university education also looms large across exigent literature and research.

University education is a human social activity. The estate is a material environment that disproportionally organizes the day-to-day life of a university. The day to day being teaching, learning, and research. Moreover, while several scholars have suggested the rise of a digital wave has ushered in a sea-change relating to the forms, functions, and stated purpose of universities, leaning into the digital does not devalue the material. Instead, quite the opposite has been argued in this paper as elsewhere (see Gourlay 2022). One may ask, *so what?* Imagining space, place, and being a university now and into the future requires an awareness of the compromises and commitments made in the physical, social, and individual being of universities. Far from static monoliths, universities are dynamic suspensions of nature. Just like their inhabitants, university spaces are what their guests make of them. The shared activities of teaching, learning, researching, of deep and abiding inquiry, are what occurs in the gaps between the words and the spaces that authors have argued generate the place of universities. To imagine the present and future of the postdigital university, just look around, it rests in and with the people whose work stewards values and principles of *space*, *place*, and *being* a university.

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