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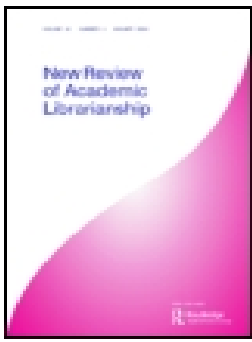
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## The University Library: Places for Possibility

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### ABSTRACT

University libraries are constituted in the literature by a range of overlapping and shifting conceptual models that are deployed to capture, express and legitimise their repurposing, progressive status and function within the university campus. Over the last two decades university libraries have been increasingly characterised as highly responsive and receptive to the fast-moving currents of technological innovation, and emergent teaching and learning paradigms. This paper charts and discusses the evolutionary trajectory of the university library set within an historical context, exploring the discursive influences that have both stimulated and propagated what might be described as progressive transformation. The paper seeks to portray and unpack the Zeitgeist of the academic library that has been cultivated in contemporary times; positioning the university library against a backdrop of global developments that have shaped the university sector from the early 1990s, and offering a macro-level exploration of the increasing status of the university library.

### KEYWORDS

COVID-19; digital technology; globalisation; information commons; learning commons; learning spaces; pedagogies; social constructivist learning

### Introduction

University libraries are increasingly characterised in the literature as dynamic and vibrant places and spaces in which learners, cast in the role of discursive consumers with a manifold of mutable needs and expectations, are socially and academically networked, supported and developed in a myriad of ways (Vogus & Frederiksen, 2019; Salisbury & Peseta, 2018; Farmer, 2016). University libraries have also been heralded in the literature for their responsive and receptive disposition to the fast-flowing currents of educational innovation impacting the university sector. Within this framing it is claimed that libraries are operating with a range of versatile and interactive learning and study spaces that utilise the rapid advances in digital technologies as well as supporting the changing practices in research, teaching and learning. Creating social and inspirational spaces to both scaffold

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and advance emerging pedagogical practice, embedded within learner centred and social-constructivist learning theories, has become an increasingly dominant driving dynamic in the more recent evolutionary trajectory of the university library. As such, university libraries are at the juncture where new digital technologies and emerging pedagogical practice blend and operate at different levels and in different environmental settings. However, in very recent times this evolving paradigm has been disrupted by the COVID-19 health crisis. And yet, as this paper will touch upon, university libraries, in response to COVID-19, have proven to be key response agents reaching out to all learners and staff through the augmentation of existing digital practices while at the same time pushing the boundaries with respect to digital technologies. Moreover, the COVID-19 restrictions on universities have certainly heightened awareness of the importance and value of the library as an actual physical entity comprising different social and interactive spaces and zones serving a multitude of needs.

### Mapping the transformations

University library transformation has been represented in the literature by a range of overlapping and shifting conceptual models deployed to articulate and legitimise their developing status and function within the university campus. As a concept and actuality, the university library space and operational structures embody what Ray (2001:250) refers to as the 'dynamic of perpetual change'. Later commentators such as such as Vogus and Frederiksen (2019:46) also acknowledge the open texture and fluid approach taken by the university library when it comes to space design and interventions to support learners and researchers:

[...] librarians are either in the process of designing new and improved spaces, in the middle of a library renovation, or embarking on assessment studies of existing spaces. [...] Some libraries are receiving design changes based on the use of study spaces. Others are adding areas for collaboration, discovery, and social interaction.

Such physical, structural and conceptual changes within the library aim to encourage a range of desirable activities and behaviours. A sense of the broad spectrum of interactions and activities at play within the university library has been observed by Mallon (2016:36):

Taking a walk around a contemporary academic library can often feel like an ethnographic experiment; observing students in their native habitat, studiously pouring over books in the stacks, sleeping on a couch in the lobby, or huddled around a computer with their peers, provides valuable insight into their true uses of the space. Other demands, both internal and external, on a library's space are also likely present. These demands, as well as a rather continuous need to cement the library's value and necessity on campus, can lead to a need for updating and revitalizing an academic library's physical space.

Mallon's observations on the need for campus libraries to revitalise in line with emerging innovation and trends - to be relevant in a rapidly changing world - should not be regarded as a somewhat sketchy, parochial and disjointed spectacle. Rather, the current trajectory of library repurposing and reimaging is a global phenomenon. Indeed, professional guidance for academic library new-builds and upgrades (space design reconfiguration) is now a global industry with no shortage of online planning resources and reimaging toolkits and consultancies available (Mallon, 2016; Mehta & Cox, 2019). Unsurprisingly, these developments have created certain unifying effects with respect to library transformation. Moreover, the increasing significance of the university library has drawn the attention of researchers, generating a proliferation of research exploring the impact of library design and repurposing on learner experience.

From the literature (and direct observations) it is fair to say that university libraries, with their increasingly broad functionality, have evolved to become indispensable resources and the foremost places for the reconfiguration of the design, location and utilisation of innovative informal and formal learning and teaching spaces. Almost 15 years ago McDonald (2006:13) ventured to describe certain defining characteristics of the then 'cutting-edge' university library: '[...] academic libraries around the world are successfully merging exciting architectural expression, inspiring internal spaces and good functionality'. Listing key traits McDonald (2006) notes:

[...] ideally learning spaces should be functional, adaptable, accessible, varied, interactive, conducive, environmentally suitable, safe and secure, efficient and suitable for information technology. New spaces should have 'oomph' capturing the minds of users and spirit of the university.

The use of the adjective 'oomph' is interesting as it depicts a social place full of energy and vitality - the place to be. McDonald's characterisation creates a particular imagery for the university library, one where it is a fluid entity conceptually and functionally, with various multifunctional, trendy and seductive designed spaces that allow learners to transcend beyond their subject departments and be part of a vibrant academic community. However, universities are not the only institutions going through paradigm shifts and evolving with what McDonald (2006) refers to as 'oomph'. The criteria of architectural expression, inspiring internal spaces and expanding functionality (and much of the other criteria listed above) can equally be applied to other social spaces such as new museums and heritage sites/visitor centres which are, as cultural and social entities, places that represent the intersection of public funding, shifts in historical consumption, new technologies, education, commemoration, and visitor experience. Museums, like university libraries, are also responding to new global trends and emerging theories driving change. New museological and

postcolonial theories have radically shaped the mechanisms and politics of display in museums. Moreover, the digitisation of archives and artefacts has radically changed the ways museums are experienced. Such technologies have introduced the concept of the virtual museum that expands reach and audience. In terms of transformation and paradigm shifts the university library is just as multifaceted and innovative as the modern-day museum. And yet, although these institutions have transformed radically over the last few decades, they still retain something of their traditional depth and coherence. These institutions - as cultural institutions - share certain self-reflective as well as progressive trends and dynamics; as Carr (2006:7-8) asserts: 'museums and libraries are [...] places for reflection, critical thinking, and as a place for possibility.' This image of the library as a 'place for possibility' resonates strongly with our contemporary expectations in that it underscores how the university library has transcended beyond what we might call a hub for retrieving information and knowledge to become, in effect, a transformational space for the individual; where they grow and fulfil their potential social and intellectual capacities.<sup>1</sup>

Much of the academic literature and research exploring university library transformation takes the form of case-studies that discuss conceptual models, mapping particular trajectories of transformation or paradigm shifts and evaluating user behaviour and experiences. What is less discussed and analysed is how the evolution of the university library relates to, and interacts with, the wider global currents shaping the university. The following seeks to address this lacuna by examining the evolution of university library space design and functionality against the constellation of wider global developments and pressures shaping the nature, scope, structure, and operation of the university over the last three decades. The contention here is that the evolutionary trajectory of the university library can only be fully appreciated and understood if it is located against the backdrop of global trends and imperatives shaping the university. As we write, the socio-economic, educational and structural changes that are being wrought by COVID-19 on the university experience will act as a powerful catalyst mobilising the library to both expand existing digital services as well as create new platforms and initiatives based on digital technologies. Indeed, under the COVID-19 restrictions the notion of the digital library looms large with some universities describing the library provision as a 'zero contact service'.

The paper seeks to highlight how our university libraries are at the intersection point where global educational policy imperatives, digital technologies

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<sup>1</sup>The recently opened and much-celebrated Victoria and Albert museum designed by Kengo Kuma and located at Dundee waterfront is an obvious example where the intersecting strands between the university and the museum - as 'places of possibility' - is evident (for more information visit <https://www.dundee.ac.uk/stories/va-dundee/>).

and emerging concepts on pedagogy interact. In other words, the university library is an expression of and catalyst for new innovations within the academic learning sphere. The paper is framed by the following broad questions: What types of activities are library spaces intended to encourage and support? How can the different library spaces be understood and legitimised in terms of theoretical framing? (Theoretical framing is contextualised within this paper as the formulation of conceptual relationships that make sense of and explain the phenomena of library transformation and reconfiguration). These interlinked questions seek to reveal insights into how university libraries are positioned as responsive agents of change; how they engage with and in certain instances may advance contemporary understandings on student journey and teaching and learning theories. A key aim here is to provide insights into how university libraries are adapting to both complement and progress teaching and learning pedagogies embedded within social-constructivist learning theories.

### **The university library: the embodiment of the cultural Capital and academic status of the university**

In contemporary times, university libraries are very much perceived as institutional showcases, regarded as the embodiment of the cultural capital and academic status of the university. They are very much a hive of activity, open 24/7 and firmly positioned as the epicentre of university academic life. As Cox (2018) points out the literature provides descriptions of a conscious, strategic and organisational alignment by libraries with the wider university institutional strategy. The library seeks to provide a range of services to the infinitely complex and sometimes intangible and shifting character of the individual learner or researcher, while at the same time it both responds to, and engages with institutional strategy and global trends and imperatives. The library represents a fusion of innovative ideas and practices, exhibiting the intersection of a manifold of evolving dynamics, resources and services including: digital technologies; learner support; research enabling and scaffolding; knowledge repository and knowledge creation; space for collaborative and individual study/learning as well as enacting and augmenting pedagogical innovation (Salisbury & Peseta, 2018).

Of course, this is not a fringe endeavour, or a subtle overlay on more traditional activities. Part of the university library evolving core activity involves the continual scanning of the academic global horizon for new emerging educational trends, initiatives, technologies and learning tools that can be adopted for utilisation (Salisbury & Peseta, 2018). University libraries employ a range of approaches to gather intelligence on how learners use and feel about their library spaces and environments. As such,

much of this intelligence gathering on users informs and legitimises change. And yet, although transformation has been endlessly infiltrating into the structure and culture of the university library it would be wrong to suggest that the libraries' fundamental notions and core activities have been completely neglected and displaced by some form of pick and mix approach. Rather the core function - that of an information hub - has been strengthened and supplemented with other services.

As touched upon earlier, the university library has evolved with multiple functionality, creating diverse spaces where social interaction and networks, both vertical (within academic disciplines) and horizontal (across academic disciplines) are negotiated, formed and played out and where different levels of intellectual struggle and development unfold. Those using the library, undergraduates, postgraduates and PhD researchers at all stages of academic development, are cast in the role of participating and engaging social actors as well as consumers with differing needs and expectations who transition through a complex mixture of emotional and cognitive alteration and adjustments. The library operates with an assortment of what might be described as emancipatory and transitional spaces. Learners at different stages of academic study and from different academic disciplines, go through a range of social-cognitive processes, negotiating a sense of belonging and emotional attachment to a physical space, a group, a community and an institution.

Over the last decade the increasing prominence given to physical space within the university suggests that despite the widespread celebration and utilisation of virtual environments, it is the actual physical buildings and tailor-made teaching and learning spaces that are dominating the practical application and functionality of universities (Cox, 2011; Matthews, Andrews, & Adams, 2011). Commentators such as Ojennus and Watts (2017) provide useful glimpses into the growing attentiveness to learning and teaching spaces within the university by arguing that the diverse student body (with different learning preferences and study needs and expectations), together with the emphasis on pedagogical practices that shift away from a traditional-lecturer centred approach to more flexible student-centred approaches, have compelled a fundamental rethink of the use, design and location of learning and teaching spaces. There is now a growing body of literature emphasising that teaching and learning spaces are not simply containers or stage-sets where the university's core activities - teaching and learning - take place in or against. Teaching and learning spaces are now increasingly understood as embodying a complex (and sometimes contested) pattern of interrelated social-cognitive and social-practical processes and possibilities (Edwards & Usher, 2008). The salient point to make here is that learning and teaching spaces are recognised as



conveying certain images and discourses about the university's overall core activities (teaching and learning philosophy and practice) and the library has evolved to be key place on campus expressing new ideas and concepts with respect to learning spaces.<sup>2</sup>

From the literature we can appreciate certain conceptual models emerging and securing a foothold with respect to characterising the nature and scope of the transformations and changes unfolding within the university library. However, it must be acknowledged that these conceptual models, while seeking to offer rationalisations and understandings on the transformations unfolding, do themselves mutate and conflate within the literature itself. As such, any claims to an explicit and universal depiction on the transformation within the library will be problematic. This lack of a consensus will reflect, in part, the diversity of the library case-studies under investigation and the theoretical underpinnings being adopted to make sense of the unfolding changes (the theoretical basis on which the evidence is selected, filtered and understood). Thus, it's important to acknowledge from the outset that the various models found in the literature to describe library transformation, while arguably helpful for framing the different phases of transformations and pathways of progression, may nevertheless fail to adequately capture and articulate the various complexities and nuances of the activities and practices at play within the library. Whilst acknowledging these limitations it is argued that the models discussed within this study do provide important universal reference points and signposts in the narrative on university library transformation.

Even the most cursory exploration of the literature reveals that technological innovation features prominently in the narrative of the evolution of the university library. The early 1990s was the time when digital technologies surfaced to make a widespread and tangible impact on university life and libraries quickly reconfigured and augmented their traditional academic role to take advantage of these emerging technologies. Initially, the university library absorbed the activities normally associated with campus computer labs. In many respects, the libraries' proactive posturing helped to accelerate the use of digital technologies, providing digital user-friendly spaces for individual and group study (Accardia, Cordova, & Leeder, 2010). The 1990s also witnessed university libraries adopting newly emerging information storage and retrieval systems such as digitised catalogues (Accardia et al., 2010). Thus, the early 1990s onwards ushered in a rapid flow and expansion of digital technologies that transformed the nature and scope of university activities more generally and the library more overtly.

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<sup>2</sup>A point underscored by Harrison and Hutton (2014:134) quoting Oblinger and Oblinger (2006:1.1) when they claim that physical or virtual spaces can bring people together, encourage exploration and collaboration and discussion or correspondingly space can carry unspoken messages of silence and disconnectedness.

As Accardia et al., (2010: 311) state: 'The 1990s saw the birth of new way of thinking about libraries relationships with technology.' Some commentators suggest that during the early period of the IT revolution (seen here as the 1990s) there was mounting disquiet that rapid expansion of digital information available from the internet would quickly replace physical text in the form of books and journals, leading to wide spread speculation surrounding the future role and purpose of libraries. From the mid-1990s onwards the flourishing of online resources and increasing use of off-site shelving facilities meant that the once book-centred paradigm (shelving space model) was no longer the powerful driver dictating space design (Bennett, 2009). This development opened the possibility for a new range of paradigms for library space planning. One obvious development was that space design solutions quickly shifted away from improving interactions between readers and physical books and journals towards creating multiple user spaces based on individual learning preferences, social learning, and interaction supported by a range of digital technologies.

In response to such existential happenings, university libraries quickly reconfigured, launching what was to become an endless succession of conceptual and physical transformation. Inevitably, such surging developments pushed against the grain of tradition and led to a fundamental rethink of the core ideas on the role and function of the library. The fundamental rethink involved a move from emphasising collections to offering a range of services and by the mid-1990s, the transformations and associated rebranding(s) were sufficiently manifest that the signifier 'information commons' surfaced to conceptualise the emerging library space usage paradigm (Turner, Welch, & Reynolds, 2013). The information commons paradigm can be loosely defined as a reconfiguration of the physical space, bringing together previously separate entities - IT services and library reference - into one communally designed space. The information commons model was seen, in part, as a response to the growing challenges associated with engaging with the rapid increase of information through digital technologies. The information commons model, responding to the fast-flowing external environment, quickly evolved, transcending beyond simply reconfiguring the physical space towards dissolving conceptual barriers between IT services and library function. In practical terms, the disciplinary boundaries between the librarian and the information technologist were softening, becoming more porous and allowing for blending of activities. This was driven by a need to adapt to the increasingly closer connections between research methods and digital access to information. A key challenge for the information commons model was the formulation of a sufficient range and depth of services and expertise that ensured the user/learner had an array of options for the identification, retrieval, processing and presentation of information in a variety of formats.

The rapid expansion of the university sector from the 1990s together with the increasing incursion of digital technologies attracted interest from academics and researchers which resulted in a burgeoning amount of research spotlighting, advocating and critically examining a range of new teaching approaches and learning models. This newly developing pedagogical field of research became both a backdrop and catalyst for a new push for library transformation (Sullivan, 2010). The university library, as an institution looking to secure its relevance at a time of considerable change, was perceived as an obvious site to accommodate the newly emerging and expanding services unfolding to support the increasingly diverse student body (linked to the expansion of the university sector) and by the early part of twenty-first century the concept of the learning commons surfaced in the unfolding narrative surrounding university library change (Sullivan, 2010; Turner et al., 2013). For some the learning commons model, by simply foregrounding and accentuating the teaching moments intrinsically at play within the information commons model, was in itself, a natural embellishment to the established information commons model (Sullivan, 2010). In other words, in the early days at least, there was a tendency to view the learning commons model as a fresh but predictable development firmly situated under the information commons umbrella. For example, Somerville and Harlan (2008) suggest the learning commons model is the second iteration of the information commons. However, for others charting the developments with the universality library, the learning commons model heralded a new chapter and paradigm shift in the conception and functionality of the library, one characterised by new space design features inspired by emergent teaching and learning pedagogies in higher education (Bennett, 2003, 2007). As Hussong-Christian, Gascho Rempel, and Deitering (2010) suggest the introduction of the learning commons signalled that the library was becoming a more interwoven component of the student experience and not simply a paper and digital resource hub and support unit function. Paralleling the changes to the university library are a range of new pedagogies that promote active and social constructive learning and within this context the learning commons model may be seen as a juncture where the library space specifically supports and promotes new and emerging pedagogies.

Turner et al. (2013) endeavour to counteract the conflating tendencies found in the literature by presenting what they view as underlying distinguishing features between information commons and learning commons. Their portrayal is instructive because it invokes an image that helps to both contextualise and conceptualise information commons and learning commons, providing important distinctions between the two models. Under Turner et al. (2013) analysis, the learning commons model places

considerable emphasis on the students as learners with distinct and intersecting attributes and characteristics, such as individual needs, prior-experiences, expectations and aspirations. They suggest that one of the fundamental differences between the information commons and learner commons is that the latter recognises the individuality, agency and needs of the student while the former views the student as simply passive consumers of information. Drawing on Bennett (2003) Turner et al. (2013), suggested that while the information commons model empowers 'knowledge seeking', the learning commons facilitates the learner in the actual creation of the new knowledge. There is also an emphasis on the social dynamic of learning here. The learning commons helped to spotlight and normalise the concept of social learning within the university, seeking to connect people through sharing a learning space(s). As such, there is a strong recognition and emphasis placed on the concept and practice of group study, and for students to connect through shared learning, where they take ownership and manage their learning in the library space (Turner et al., 2013). The designed flexibility within the library whereby students can shift seating to create their own group learning space not only engenders feelings of empowerment, ownership and community but helps facilitates more meaningful learning. The salient point here is that the learning commons model underscores the social-cognitive processes of belonging to an institutional space and community.

The learning commons model also creates the conditions for closer integration with the wider institutional services including cross-disciplinary and cross collaborations with experts. By way of example, services that traditionally operate external to the library such as student administration, student counselling/wellbeing/careers and student support services - that help in exam study skills, learning/study skills and writing skills - have often transitioned to become fully or part integrated within the library building. This library interaction and merging with other services has given rise to the term 'superconvergence' within the literature (Cox, 2018).

According to Turner et al. (2013) this integrating dynamic or 'superconvergence' of the learning commons denotes a notable shift in the strategic direction of the university library, a shift that aligns the library role with institutional wider aspirations for more cohesive and inclusive working practices. A point noted by Sullivan (2010:130), drawing on Bennett (2008:184-85):

[...] the learning commons is clearly and explicitly aligned strategically with the institution-wide vision and mission—that is, as a dynamic and active partner in the broad educational enterprise of the institution, not just the library-centric enterprise". [...] At this level, the library has greater involvement in a wider range of campus-wide initiatives.'

Thus, in many respects the learning commons model takes a major step towards increasing the plurality of activities unfolding within the library: raising its profile and reconfirming its relevance. Moreover, the learning commons model also sign-posts the new strategic role of the library that goes beyond aligning reactively with university wider strategy. Rather, within the learning commons model the library is exhibiting a pioneering role with respect to the development of study and learning spaces (Cox, 2018).

The university library, embracing and enacting the learning commons model, can be perceived as far more multifarious with respect to its ethos, operation and outlook, engaging with a much wider range of institutional departments/actors and dealing with more complex, non-linear processes. Under these newly emerging arrangements the library constitutes a sophisticated and complex fabric of activities that facilitates the notion of a university-wide learning community (Harland, Stewart, & Bruce, 2018). All this reflects the desire for relevancy but also, the unique character and complementary temperament and potential of the university library. The learning commons model necessitated changes that pushed the boundaries; libraries' relationship with its users are moving from transactional to more collaborative engagement. For example, libraries opened 24/7 and adopted open and inspirational architecture designs with zones and subzones designed to accommodate a range of preferred learning needs and preferences. Zones and subzones included: shared technologies, special booths that act as meeting rooms for peer group work and peer presentations; living social spaces, characterised by low coffee tables surrounded with couches and armchairs and large open areas where students can socialise and consume food and drinks. Library users were given more choices with respect to where and when to learn and study. University libraries augmented traditional study spaces by installing kitchen areas to supplement the official library cafe arrangements. This created the opportunity for learners to personalise the space in ways that cast them as co-creators rather than passive consumers of the spaces within the library. Discussing space design within the context of the university library Farmer (2016:90) provides a helpful list of what she found to be salient features:

- Differentiated spaces for individual and group work, some with presentation/projection capabilities; classrooms are also available
- Mix of office- and leisure-style furniture (including bean bags and diner booths), much of which may be moved and arranged to suit learners
- Pervasive technology, including hundreds of computers with a variety of software programs, Wi-Fi capability, large-screen dynamic display/signage,

- Multimedia consumption and production areas service centres: reference, technology, writing, thesis/research assistance,
- Instructional design, faculty development
- Food consumption and leisure areas altering

Throughout the last two decades university libraries have been receptive to the growing realities of the student being increasingly unbounded from traditional learning and teaching paradigms. The widespread penetration of digital technologies are providing a new language and set of roles, positions, identities and meanings with respect to university education (Delaney & Bates, 2015; Fisher & Newton, 2014). Traditionally, (before the wide spread of digital technologies) learning and teaching was characterised as space and time bound, taking place within the lecture theatre or classroom. Under such traditional situations, lecturers/teachers are cast in the role of the 'sage on the stage' - the knowledge gatekeepers and the authoritative custodian of interpretation and meaning (Colet, 2017). Under these traditional arrangements there is an asymmetrical relationship with the lecturer cast in role of the expert, and the student viewed as the layperson. However, these traditional roles and identity dynamics have been steadily challenged and reconfigured by the steady outpouring of innovations derived from digital technologies. Digital technologies are opening new possibilities for learning and pedagogy - to be fluid, diverse and liberating (Delanty, 2001; Edwards & Usher, 2008). Such technologies are said to open spaces for new freedoms to surface, where learners are less bounded by what Edwards and Usher (2008:54), drawing on Lankshear, Peters, and Knobel (1996) describe as 'spaces of enclosure' - of the book, the classroom, the lecturer/teacher and curriculum. Within the context of the increasingly unbounded teaching and learning paradigm - where the traditional or formal teaching and learning settings of the classroom and study areas no longer hold sway - the university library has been adopting a pioneering role in creating new and discursive spatial configurations for informal social learning and teaching supported by digital technology. What we have here is a recognition that digital technologies not only enable us to do more but also foster certain behaviours.

The creation of such social spaces for student learning resonates comfortably with social-constructivist learning theories. Social-constructivist learning foregrounds the notion of shared experiences and pooled cognitive resources whereby small groups of learners - with common interests/goals - gather and process information through numerous social interactions and mutual critical reflections. Such group interactions allow for the co-construction of new knowledge schemes to unfold (social learning). These customised social spaces exhibit a range of activities from scheduled

focussed problem-solving collaboration (and very much outcome-oriented) to more organic and intermitted exchanges whereby groups of fellow students gather for largely independent study that also allows for spur-of-the-moment reflections, discussions and exchanges. Some of these social spaces are used for what Crook and Mitchell (2012) refer to as ‘ambient sociality’ where students visit and study independently without social interaction but at the same time they enjoy using a social space as a locale simply to feel a passive participant of a learning/studying community. Here the buzz from these social interactions forms a familiar study community backdrop (Bryant, 2009; Bryant, Matthews, & Walton, 2009).

Over the last decade the concept of ‘makerspaces’ has become a prevalent worldwide phenomenon in university libraries. Cox (2018:227), drawing on earlier commentators, (Altman, Bernhardt, Horowitz, Lu, & Shapiro, 2015) describes the makers space as a: ‘natural fit for the library as they promote creativity and entrepreneurship’. The makerspace can be described as a community-operated, hands-on, practical workshop-type space where its members are free to develop ideas and then translate those ideas into tangible physical constructs/artefacts with a focus on design and prototyping (Pasquini, Knight, & Knott, 2020). There is no standard blueprint to a maker space or as to what equipment it needs to qualify, and as such they come in many different forms. Nevertheless, while acknowledging these differences between maker spaces there are common characteristics emerging. One is their open, inclusive environment which tends to be interwoven within the core busy hub of the library rather than at a periphery. The other common emerging feature relates to the common equipment such as 3D printers, laser cutters as well as traditional hand tools. Such spaces enable users to express themselves creatively and to share and collaborate with others from other academic disciplines. The makerspace is said to have complemented and not displaced the established evolving information commons and learning commons paradigms (Slatter & Howard, 2013). The makerspace concept is an attractive proposal for the university because it provides extra resources and support for the practical elements and tasks already embedded within in the curriculum. Indeed, early indications have already established that 3D printers within makerspaces are useful in complementing the activities already in place within medical engineering and dentistry subjects. Although a central pillar of the makerspace concept is the actual act of building and making a physical artefact, Turner et al. (2013:226) point out that the makerspace is not specifically defined by a space with tools and equipment to make physical artefacts but rather as a ‘mindset of community partnerships, collaboration and creation.’ This notion of a ‘mindset of a community partnerships, collaboration and creation’ is interesting as it invokes the notion of the actual human interactive



processes involved as well as the actual tangible physical outcomes. The maker space concept also resonates with and adds texture to the idea of the library as a space of possibility. Moreover, this focus on the production of tangible products acts as a subtle counterpoise to those elements that are firmly coupled to the idea of the virtual library enabled through digital technologies.

### **Our evolving world: positioning the evolving university library within the global arena**

On the morning of the 12<sup>th</sup> March 2019 the CERN Physics Laboratory (in partnership with World Wide Web Consortium and the World Wide Web Foundation) hosted a 30<sup>th</sup> anniversary event celebrating the birth of the internet. This CERN event kick-started a series of world-wide celebrations, some of which reinvigorated debates surrounding the potential of the internet and digital technologies in shaping human relations and interactions. The celebrations surrounding the reach and impact of the internet and digital technologies cannot be overplayed; connectivity, instant unbounded possibilities are a common theme. As we know the internet and associated digital technologies, with its effects of compression of time and space, is central to the overarching narrative on the processes of globalisation - that is our contemporary expressions of globalisation.

But what do we mean by globalisation? And how has it shaped our universities? Globalisation has become an overarching concept that is used to understand the various ways in which the world is becoming increasingly interconnected and co-dependent. Globalisation is generally conceptualised as being driven by an amalgamation of technological, social and cultural processes as well as economic dynamics and factors. Globalisation drives change and assigns new roles and functions, and as Rizvi and Lingard (2010:22) point out: 'globalisation is a concept that is used not only to describe a set of empirical changes, but also prescribes certain desired interpretations of and responses to these changes.' This latter part is a salient point, as it indicates that the processes of globalisation create certain social imageries (Rizvi & Lingard, 2010) and discourses that both constitute and manipulate our institutions, including universities and, by default, their libraries.

Over the last two decades university education policy has been increasingly thought about and made within the context of globalisation. Ball (2017) refers to this policy coming together as a new 'global policyspeak'. This is most noticeable in the discussions and debates on the spread of global policy, where international non-government organisations such as United Nations Educational, Scientific and Cultural Organisation,



(UNESCO) World Bank, Organisation for Economic Co-operation and Development, (OECD) and World Trade Organisation and regional organisations such as the European Union (EU), recognising the potential information communications technologies (ICTs) have in circulating ideas across national borders, have become major players when it comes to identifying and constructing global educational policy imperatives and policy approaches (Rizvi & Lingard, 2010). Such organisations create a global educational policy field within which educational policy imperatives and developments and ideas are shared and explored, promoted and diffused and steered. Significantly, these organisations help create a shared understanding on what is “good practice”, and the sorts of challenges ahead, as well as providing a global policy agenda for universities, holding them accountable through various international benchmarking tools (seen as soft governance approach). Consequently, universities are now endlessly reviewing and revising their practices, curricula and pedagogy to meet emerging global expectations articulated by this global policy field. And yet, we need to acknowledge that this is not a complete and unreflective acceptance of the generic global policy assembly; global educational policy imperatives may invade the individual nation state but it’s wrong to assert that local educational systems (embedded within state culture and traditions) are fully displaced by these global educational policies and imperatives. Although global policy convergence provides a powerful steering force the actual global policies and imperative themselves are translated into practice in complex ways interacting with and sometimes interrupting other indigenous policies in play in local settings. As such, although global polices act as powerful drivers instigating a reshaping and reconfiguring of nation state education policy and practice they maybe received and enacted differently (Ball, 2017).

There are different and competing ways of construing the nature, extent and significance of globalisation – the contemporary realities of global interconnectivity and interdependence - and its implications for the university. Under the emergence of globalisation our universities in the sphere of economic policy assumed even greater political significance than in the past and the drive to expand the university system was seen as having an essential part to play in advancing economic growth and social justice. What is evident is that universities are increasingly perceived as crucial in ensuring sustainable economic productivity and competitiveness in the context of the processes, pressures and the requirements of the global economy (Ball, 2017). Within this context, globalisation has mobilised widespread acceptance of neoliberalism, generally defined and analysed as an ideology and set of discourses characterised by an economic set of practices that promotes public services such as universities having more freedom from

state control and subject to market forces and competition. The emergence of neoliberalism must be seen in the context of global flow of policy ideas - what Rizvi and Lingard (2010) view as the social imaginary of globalisation - which produces a set of imperatives for education policy and a particular way of thinking about and steering education and its contemporary challenges and purpose. As such, neoliberalism is also seen as a philosophy, culture and form of governmentality - ways of thinking, acting and of doing things (Ball, 2012, 2017).

Neoliberal form and logic have steadily intruded into the university, profoundly shaping its ethos and strategies. Under neoliberalism universities are propelled to be market actors pursuing new revenue streams and subject to more accountability in the form of invasive audits and extensive data reporting on performance and activities. Critically, neoliberalism constructs students as the consumers (with needs and expectations) and university faculty and the library as service providers meeting learner needs and preparing students for the challenges of employment in an increasingly fast changing and interconnected world. As such, under neoliberalism there has been increasing focus on the university student experience and quality and value for money of university services. Mahony and Weiner (2017, 560) drawing on Harvey (2005:2) suggest that under this neoliberal thinking, human wellbeing and potential is advanced through liberating individual entrepreneurial freedoms and skills within an institutional framework. More nuance and fine grain research on the pervasiveness of neoliberalism within university education has given rise to what some refer to as neoliberal subjectivities: the subjective experiences and lived manifestations of neoliberal narratives that work to push individuals into becoming neoliberal subjects. The influence of neoliberalism on culture and subjectivity is well documented. For example, Türken, Nafstad, Blakar, and Roen (2016) drawing on Foucault's theory of governmentality posit that the neoliberal interventions promote entrepreneurial culture, where the 'autonomous entrepreneurial self' is advanced as the only way forward; compelled to self-monitor and continually reconstruct and upgrade and to maximise their human capital value in order to accommodate the changing demands of society and employment. As Türken et al. (2016:34) point out, under this neoliberalism subjectivity framing: 'The individual is [...] obliged to engage in the self-realisation project and develop a better version of themselves to manage life.' Within this framing the student experience - their learner journey - is viewed in performative terms; demanding academic ability, self-motivation and mental agility to engage with and transverse the complexities of the world.

We also have to consider that within the debates about global processes and neoliberalism impacting universities, the concept of the knowledge-

based economy has surfaced to occupy a dominant position (Olssen & Peters, 2005). Put simply, the knowledge-based economy derives from the notion that knowledge and education can be treated as commercial products, and that educational and innovative intellectual commodities and services, characterised as productive assets, can be exported for high value return (Barnett, 2011; Ball, 2017). For universities - as productive knowledge generating entities - these entrepreneurial freedoms are signposted in a certain way. As Ball (2017:28) notes within the context of university human science research production:

The processes of neoliberalism are reconfiguring the relationship between human sciences researchers and their research. The relationship is no longer articulated by curiosity, critique and enlightenment progressivism, but instead by responsibility, investment and improvement. Our relationships to our discipline and to ourselves are remade as an ethics of enterprise.

The knowledge-based economy, especially by re-emphasising the importance of technical and scientific knowledge, constitutes a new (ongoing) set of challenges and demands for universities with respect to research and knowledge production practices. Naturally these challenges and demands have a bearing on how universities deliver graduate and postgraduate education (Rizvi & Lingard, 2010). Reflecting and adjusting, as a means of attaining and maintaining the necessary flexibility and adaptability to meet these new and emergent educational expectations and challenges, has been critical for institutional relevance and survival (Ball, 2015, 2017). As Nguyen (2010:88) suggests: 'Universities must become a pioneering cradle in the production of new knowledge for society [...] and they are mandated to provide global-adaptive knowledge to global moving students.' The assertion here is that universities must produce new kinds of graduates that are equipped to working creatively with knowledge, are flexible and adaptable and have greater mobility in terms of moving within and across different sectors of employment. Meta-skills and flexible career paths loom large here. Employment and working practises becoming more interconnected, with the spectre of disciplinary boundaries softening and becoming more porous (Rizvi & Lingard, 2010; Brehony & Deem, 2005). Hook, Hickey, and Jackson (2018:39) drawing on Buckingham (2013, 30) observe: '[...] graduates need to [...] adapt to the stresses of a "portfolio" lifestyle.' Such notions align with post-Fordist thinking where adaptability and flexibility are perceived as an essential component in the drive to increasing a nation's economic competitive edge on the global market.

This is then a glimpse of the shifting global landscape of the university sector in which we must locate the evolving university library. The library has been implicated in the global struggles and challenges of the university. The assertion here is that the university library is located at the intersection

point where dynamics such as: global education policy imperatives, local university strategic planning, national and international competition for students, and emerging digital technologies and new pedagogies interact. These dynamics have coalesced in different way to open up a discursive space for new proactive and reactive opportunities for the university library (Cox, 2018; Woodward, 2009; Bryant et al., 2009).

## Discussion

Globalisation has helped create the conditions for the expansion of university education, resulting in a greater diversity in the student body. Overall, the expansion of university education participation has resulted in unparalleled challenges and changes to the sector as it seeks to engage with and respond to this greater diversity in learner needs and expectations. Most notably the increasing focus on enriching the learner experience, and the endless diffusion of teaching and learning innovations and paradigms derived from digital technologies, has precipitated considerable change to the library space. Here the library is firmly embroiled in the complexities of the student journey.

Over the last two decades the concept of students as 'customers' of the university and the drive towards a business-like model – rooted in neo-liberal ideology and practice – has gained considerable traction within the library. There is a case to argue that our university libraries (although not all) have been remodelled along the lines of commercial enterprises including a strong orientation to the demands of its consumer/customer. As Berkovich and Wasserman (2019:1042) point out the new business model for the library emphasises *efficiency*, *calculability* and *predictability*. Our university libraries' reactive and proactive alertness is, to a large part, dictated by technological innovation and the needs and expectations of a diverse student body. The library is increasingly high tech and well informed, using a plethora of increasingly sophisticated data gathering technologies to construct user profiles and space and technology utilisation. This data on learner experiences, needs and behaviours are exploited to evaluate library space performance and to mobilise alterations and change, through informing operational planning and strategy. It is here we see the student – as customer – being co-opted as co-designers and co-planners of the library services, technologies and associated spaces on offer (Saunders, 2015).

Although the points of genesis and patterns of development with respect to the repositioning and transformations will inevitably vary, what is clear is that in both practical and conceptual terms, university libraries are in a state of becoming. This means they have an operational plasticity, continually being reconceptualised and reconfigured and in some cases rebranded,

in response to the interplay between new pressures and challenges stemming from the changing university landscape. University libraries are challenged with the task of providing the inspirational space(s) and digital and physical resources for learners to simultaneously interact with their peers and the external world; allowing the learner to not only access and engage with the endless flow of new knowledge but to filter, utilise and reformulate that knowledge in creative ways for particular consumption.

Looking across the literature we can detect certain contours and characteristics with respect to learner experience. The metaphor of a 'learner journey' has emerged, habitually used to conceptualise the individual studying at university. The learner journey can be characterised by multiple experiences, perspectives and meanings and is dependent on the individual student biographical disposition and their interactions with their tutors, peers and institutional setting. We have two fluctuating catalysing features inextricably at play here; the 'individual subjectivity' (inner self) and the 'external environment'. With respect to the external environment the library now occupies a prominent position in the terrain and topography for the learner journey, helping the learner to navigate the challenges. Within this external dynamic the library seeks to foster and sustain social-cognitive processes of belonging to a group, a learning community and academic institution.

At the most fundamental level, the way the library enriches and shapes the student experience – or learner journey - is viewed as the key barometer for measuring impact and success. The necessity to open 24 hours, 7 days a week to meet demand can be viewed as a potent statement of its increasing relevance within the university campus. Moreover, this particular departure from the traditional time bound paradigm is a clear sign of the library's adaptability in a fast-changing university landscape. We can see a Darwinian natural selection and survival mentality at play here. In functional terms this means that any library space and associated technologies that don't attract sufficient learners to justify their existence will either be required to quickly evolve to be more appealing or alternatively be jettisoned, replaced by a new space bounded initiative.

Sticking with the social Darwinian analogy for a moment, we can develop our conceptual lens further by drawing on the model of 'punctuated equilibrium' to map the more radical evolutionary shifts within the library. Punctuated equilibrium posits that evolutionary change is generally moving incrementally with a certain evenness (or equilibrium) but this headway is subject to infrequent disruptions - punctuated by forces that produce both rapid and radical changes and departures. Arguably, the arrival and impact of certain digital technologies, most notably the internet, can be seen within the context of punctuated equilibrium. Both Darwinian

thinking and punctuated equilibrium can be a useful heuristic device to help understand the current evolution of the university library and its near future trajectory. Indeed, the recent COVID-19 health crisis can be seen within the context of punctuated equilibrium. The impact of the COVID-19 health crisis has spotlighted and mobilised the library to consecutively close down the social character of the library while intensifying its outreach, virtual dynamic and digital character. Under the COVID-19 health crisis new virtual library innovations and initiatives have rapidly emerged, with some no doubt finding a foothold. And yet, the current impact of COVID-19 on the university has certainly underscored the indispensable physical social dimension the library, and the part it plays in fostering and supporting the notion of a learning community through a discursive range of fluid social learning spaces and informal collaborative environments.

## Conclusion

This paper represents an effort to portray the *Zeitgeist* or spirit of the university library in contemporary times. The library architecture and space encode certain values and convey certain messages and we have witnessed considerable adaptation in the university library architecture. Over the last three decades the university library has been implicated in the global struggles and challenges of the university and, consequently, has shifted considerably from their traditional anchor points, becoming increasingly more organic, growing in scope and reach in new directions. In contemporary times university libraries are under increasing pressure to deliberate endlessly on what it means to be a library user and how such users consume and interact with digital technologies and assorted spaces within the library.

To invoke the importance of the university library is to raise questions not simply about the types of services on offer and the sorts of activities library spaces are intended to encourage and support, but also how these different library services and activity-bounded spaces are legitimised. If we return our original questions: **What types of activities are library spaces intended to encourage and support? How can the different library spaces be understood and legitimised in terms of theoretical framing?** The first observation to make is that these questions require us to bring together a multiplicity of factors and evolving dynamics within one realm. The argument here is that the evolutionary trajectory of the university library has been shaped by a number of global developments including the advances by penetration of digital technologies, trends in pedagogy, the infiltration of neoliberalism in the university (Berkovich & Wasserman, 2019), and critically, the global policy drive for wider participation in

university education, together with the intensifying focus on evaluating and improving the student experience. These dynamics have coalesced in discursive ways to open up a space for proactive and reactive opportunities for the university library (Cox, 2018, Woodward, 2009; Bryant et al., 2009). Most notable has been the increasing focus on enriching the learner experience and the endless diffusion of teaching and learning innovations and paradigms derived from digital technologies; collectively they have precipitated considerable change to the library space, working practices and ethos.

The nexus links between library space and social constructivist learning have received recognition in enhancing student experience and engagement in learning (Bryant et al., 2009; Bryant, 2009). These dynamics are likely to feature in the future developmental trajectory of the library. However, what is less understood is how the complex non-linear processes and interaction between library space and social constructivist learning shapes learner subjectivities and communities of accomplishment and achievement. It is argued here that more research is required in order to capture, delineate and specify how library space influences the fluid complexions and contours associated with social constructivist learning. Such enquiry, perhaps drawing on the field of anthropology, will illuminate the more nuanced and textured insights on how the library moulds the learner to achieve meaningful membership of the academic and social worlds of the university.

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