

Pedagogies of hybridity in the post-pandemic university. Experiences, expectations and possibilities for learning and engagement in education studies

Final report

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Introduction

The project started in September 2022, supported by a research grant from the Society for Educational Studies. It had the aim of exploring the perspectives, experiences and expectations of students for hybrid learning in the post-pandemic university. Prior to the Covid-19 pandemic, in-person lecturing was the dominant paradigm for teaching and learning in Higher Education. Learning in the same space at the same time was widely accepted as the best approach. Public health responses to the pandemic accelerated the use of hybrid models of teaching and learning. These included the sudden use of synchronous video-conferencing tools (e.g., Teams or Zoom), and increased use of asynchronous (pre-recorded) technologies. This disrupted normalised pedagogies and shifted expectations of students towards experiences that meshed with their own of connectivity, e.g., social media. It opened a space of possibility, previously closed, in digital learning and applied digital literacies. Simultaneously, hybrid pedagogies challenged the sustainability of the deeply collaborative, dialogic, interactive and embodied spaces of learning, where complex and dynamic issues of education are interrogated.

We locate the research in the socio-economic discourses of the commodified university, where 'hybridity' has become analogous with 'efficiency', 'flexibility' and 'agility'. Foregrounding how this is central to an instrumental and passive consumption of education, the research investigates how students on a master's in education course navigate hybridity, silhouetting the benefits and barriers in the future pedagogical development of education studies. We emphasise the liminality brought about by hybrid educational experiences education, and through the concept of 'the gutter', we spotlight the fluid and paradoxical nature of learning experiences during and post pandemic. The research is theoretically underpinned by ontologies of time, space and matter as inseparable elements that become flattened within a new temporal frame, spacetime (Barad, 2013) as a fluid, 'smooth' space (Deleuze and Guattari, 1980/1987) characterised by emergent and amorphous movement and a temporal indeterminacy that echoes the disjunctive experiences of time, space and materiality during the pandemic. In liminal spaces, in the gutter, bodies are intimately entangled *transcorporally* (Alaimo, 2010) with things, environments and other bodies, human and non-human. The remembering of experience is not merely a subjective recall of past events but is constitutive of the dynamic field of spacetime (Barad, 2017a) where 'there is no singular act of absolute differentiation, fracturing this from that, now from then' (Barad, 2014:168). Instead, 'moments from the past exist(ing) in the thick-now of the present moment' (Barad, 2017b:33). As such, we explore students' experiences of hybridity with consideration as to how multiple temporal, spatial and material elements including digital, human and semiotic components garner a spectrum of effects and affects that have consequences for how we conceptualise and work within the post-pandemic university.

Comic-book making as one of the methods used in data collection for the project, lends two key concepts to theoretical conceptualisation. The first is that of the 'viewer' a position with increasing

importance to media used during the pandemic and one which we explore in more detail below. The second is the gutter. The gutter is the non-representational space between panels in comics that is an interlude in space, time, action, object, subject and object. This is where the viewer brings their own narrative to the story.

The gutter is used in this project in its biological, narrative and etymological form and function, content and style to explore the *influence* of the past, the collection and collation in the present and through overflow, stagnation and sanitation of its *generation* of unheralded, unthought or unintended outcomes in the future. This is outlined in greater detail below. Suffice to say, the origin of COVID-19 can be tracked to the gutter and how its *influences*, biologically and etymologically are *generative* of unknown flows which are paradoxical and unheralded. These are shown in our findings which find a close relationship between the striated spaces of capital and how they overflowed from the public into the private. Contrary to the technical literature, these are not straightforward impingement or encroachment on the private sphere but are manifest in a reclamation of time through an individual and often resistant use of representational space, of which the Internet is a paragon (but equally paradoxical) example. In this manner, the gutter is a means by which to think about the aporic conditions of the post-pandemic university, which seems to mimic some of the qualities of hybrid learning: here/there, tuned in/tuned out, present/ absent.

The project uses a hybrid ethnography and multi-modal methods. These include digital storytelling as creative, situated, playful, embodied and relational approaches to participants assimilating and disseminating their personal moments of engagement and disconnection with hybrid modes of learning. The research ultimately aims to understand how new modes of teaching, learning and navigating the spaces of the university both digital and non-digital, impact HE courses critically engaged with the complex, dynamic issues of contemporary global education (such as Master's in Education courses). What is vital to grasp, that while the virus has dissipated in its general (if not total level of threat to the population), its influence was – and is – generative of new ways of thinking, emerging and acting in the university. This paper provides an insight into the project and like the project itself, is emergent and nascent in interrogating – if not understanding – the spacetime matter of the gutter, in all of its complexities, offering a novel form to think of and with current phenomena, their effects, affects and defects.

Literature Review

As identified in the aims and objectives of the study, the project examines student experience of hybrid modes of learning and teaching in the university. One of the axioms of the study is to employ 'hybrid' methodologies in the data collection. This includes a range of approaches, detailed below, especially the use of hand-drawn and digital comic making. In the drawing and storytelling of comics, there are two key areas of importance. The first is in the drawn panels where the exposition of the story takes place. In his seminal exploration of comic-book making, McCloud (1993: 63) identifies that 'comic panels fracture both time and space offering a jagged staccato rhythm of unconnected moments'. In the example below, McCloud shows this in action with in-text commentary.



Figure 1: McCloud, S. (1993: 69)

By the end of the sequence, the reader is left to suppose what follows from the final panel. A straightforward reading is a reciprocated kiss shown by the closed eyes of the woman in the second panel. Yet an alternative supposition of the third panel is possible. As McCloud notes, it is the importance of the individual's use of their imagination which is key to the exposition.

While the panel is representational, it is the non-space, the 'blank' between the panels that permits the imagination of the viewer to be employed. This is the second area of importance. This non-space is known in comic-book making as 'the gutter'. For McCloud, (1993:66) 'in the limbo of the gutter, human imagination takes two separate images and transforms them into a single idea'. In this space, a host of different, complementary, competing, coercive actions take place, with the 'silent accomplice' of the viewer, who is an active participant, even complicit in the exposition offered in the gutter.

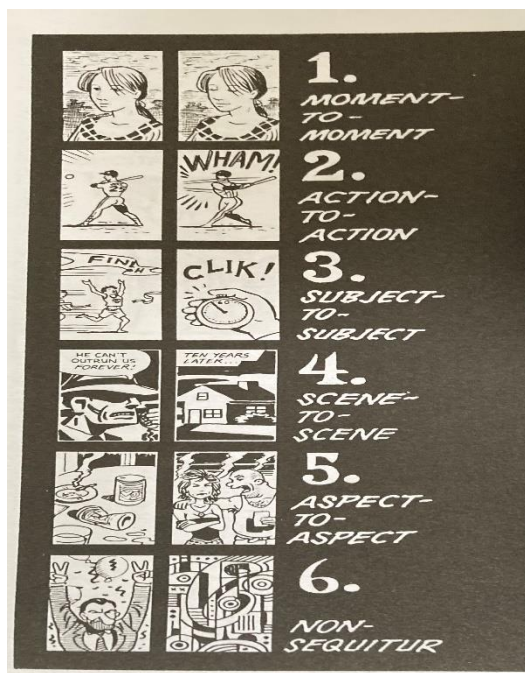


Figure 2: McCloud, S. (1993:74)

As Figure 2 demonstrates, even within an extremely short narrative, entire years can pass between two panels (4), just as easily as moments (1, 2 & 3). In 5, the viewer's attention is drawn to excessive consumption and the effects that this has on the characters in the second panel and time can be shown to pass backwards as well as forwards. 2 shows an immediate action and reaction, where 6 shows a complete abstraction between panels, with the sequence and ending left entirely to the viewer's imagination.

As the project progressed, using comic-book making as a central component of its data collection, the importance of the concepts of space and time in comic-book making emerged. Many of the concepts first identified in the outline of the project are imminent in the methods and methodology. For the purpose of this literature review and its importance to hybrid pedagogies, two concepts will be used. The first is the original theoretical formulation of the gutter. Although at a burgeoning stage, drawing on the role of the gutter in comic-book making outlined above and meshing it with current social thought on space, time and matter, we offer a reworked approach of thinking at, within and between the margins of everyday experience. This has particular resonance for interrogating - if not yet fully analysing or understanding - pre-, during and post- pandemic experience, in relation to the virus and its contents and discontents. The second is the role of the 'viewer', common to visual media. Where pre-pandemic, students and staff may well have contributed to a lecture in synchronous spaces that foregrounded dialogic, interactive and embodied practice, this altered during the lockdown protocols from early 2020. Students increasingly became 'viewers' of educational content, digitally communicating synchronously or asynchronously through video-conferencing technologies. This resulted in participants having more in common with the viewing of on-demand media that were the whetstone of entertainment during 'lockdown' mandates in the pandemic, rather than the embodied and dialogic (theoretically at least) spaces of the classroom and the lecture theatre.

In the Gutter

The first known and recorded cases of SARS CoV-2, the virus that causes COVID-19, were estimated to be found on November 18th 2019, in Huanan Market, Wuhan, China, with its zoonotic origin in stalls selling racoon dogs, foxes and porcupines among others (Worobey, 2021). A follow up study by Worobey and colleagues found that 'health officials and researchers detected SARS-CoV-2 on animal cages, carts, and drainage grates in these venues' (Worobey et al., 2022). The virus's incidence in areas where animals and humans meet drains, belies the word 'virus' own etymological origins. First identified in the English language in the 14th century, it is likely derived from the Proto-Indian-European (*PIE*) root *ueis-*, which means to melt away, to flow. For Germain 'the poisonous attributes of a virus are linked to properties associated with liquids' with the 'primary characteristics of fluids [being] a lack of fixity and disrespect of boundaries' (2022: 81-82).

Viruses which prefigure a pandemic are able to cross borders, be they animal or human, national or political, scientific or cultural, with a fluidity that both fills and empties spaces and times. Fluids have a tendency to 'flow and permeate unless contained by hard boundaries' (2022: 81-82). A gutter, which provides some direction to liquids (from infected animals or otherwise) is equally able to overflow and collect run-off as it is to direct it towards sanitation. It is also a place of temporary stagnation, of blockages and of the mixing of random matter. The continued prevalence of the virus in these areas, even after the Huanan market was sterilised on 1st January 2020, connects the past of animal borne virus to its future human manifestation where it has claimed at least 6.4 million lives and altered means of working, studying, leisure and pastimes, certainly in the medium term and possibly forever. While it is not in doubt that the continued existence of the virus in gutters around the market is a sign of a virus's potential toxicity, it is also an environment that is fertile and febrile

and overflows with the possibilities of unintended consequences. The utopian thinking that was part of much of the early part of the pandemic as the terror of an unknown disease (this was evident in the UK, see findings section) is a testament to this, even if, in many countries, this has been directed towards resistance and rejection of the 'new' or indeed the 'old' normal, through striking, quiet quitting or 'hybrid' modes of working, particularly at the confluence of pandemic with societal crises that engender precarity amongst people (e.g. cost of living crisis, war in Europe, gigified economies, climate crisis etc.). Precarity is a pervasive affective state, increasing in the Global North. Learning to live with vulnerability and insecurity was a pre-existing condition for many students of Higher Education, exacerbated by the pandemic (Taylor, 2022).

In our conceptualisation, gutter space 'materialises and enfolds in different temporalities' (Barad, 2013:17) which can be reworked to new ways of thinking and doing. It is not in error that epidemiologists search sewers, drains and waste products for confirmation of a virus's existence. In the gutter, two spaces are drawn together into a mixture resistant to binaries and their structural desire to create separate and hierarchised oppositions. Gutter space is not organised along Boolean binaries of 'if' 'and' 'or' 'then', but a new time imaginary of spacetime mattering (Barad, 2013), a mode of thinking that operates through a flattening of spatial, temporal and material elements in ways that are *influenced* by the past and *generative* of the future. The 'time of now' is not a thin slice of 'the present' but instead, a thick-now – a distillation of the past diffracted through the present and where matters of time and justice (of what matters) become inseparable (Barad, 2017).

The gutter space, therefore, becomes a fluid space, that Deleuze and Guattari (1980/1987) refer to as a 'smooth', 'open-ended' and 'nomadic'. This is other to the 'sedentary', bordered 'State Apparatus' space of structure, certainty, stability and hierarchy which they refer to as 'Striated' space, evidenced in Higher Education's architectures of linearity, time as progress, employability and productivity. Smooth spaces are characterised by their amorphousness and informality, they operate underground and are open to spacetime matter's immanent, multiple, rhizomic connections. Indeed, movement is different within smooth space: more fluid and dynamic, an always-becoming as opposed to the arrivals and closures of striated space which is 'confined as by gravity to a horizontal plane and limited by the order of that plane to preset paths between fixed and identifiable points' (Massumi, in Deleuze and Guattari, 1980/1987: xi). Deleuze and Guattari (1980/1987) use the sea as the ultimate figuration of the smooth space and the gridded city as the uttermost figuration of striation. However, smooth and striated spaces do not sit outside each other. Just as the gutter enfolds and reworks spacetime matter, smooth and striated space pervade each other, the striated appropriating the smooth and the smooth emerging from the striated. We resist seeing the gutter's superiority as a space, rather its potential and possibility for thinking anew. As Deleuze and Guattari (1980/1987: 500) note,

...smooth spaces are not in themselves liberatory. But the struggle is changed or displaced in them, and life reconstitutes its stakes, confronts new obstacles, invents new paces, switches adversaries. Never believe that a smooth space will suffice to save us

Instead, we conceptualise the gutter as a biological, etymological, narrative and physical non-representational space that is generative of new imaginaries. *Generative* from the *PIE* root 'gene' is 'to give birth, to beget'. The liquids and matter of the gutter are the production of consumption, acting as a prognosis of future possibilities, including unknown possibilities and unintended consequences. Such were the effects of the virus on everyday life, couched in simultaneous apocalyptic and utopian thinking and action (Grek and Landri, 2021).

The liquidity of modernity (Bauman, 2000) and its influence on higher education (Oxenham, 2013), simultaneously positions students as consumers and producers in a double bind. Students, in their freedom to choose their university, course and even where to live, seek a social contract of *quid pro quo*: an exchange of money for something of value, either the achieved status of degree education or homestead. For some the liquid modernity of higher education is so pervasive that it presents itself as a 'freedom, [so that] domination becomes complete' (Han, 2021: 18) with the net result that for students 'freedom not discipline is their experiential reality' (Germain, 2022: 83). Freedom is quality with an array of value-judgements. Freedom of choice is influenced by the perceived gravitas of an award from a given institution. Choosing a degree in Education ties certain discourses and beliefs to the subsequent choice of career that is in one that offers and paid employment in a sector where strikes, resignation from the profession and intolerable workloads are commonplace. As the discussion and findings section, freedom is as much a choice to not execute a course of action as it is to follow one. How many students in Education / Studies would choose to be tied to these future constrictions? Freedom is part of the precariousness of everyday life. Our contention with the spatial and temporal forms of the gutter is to see how the overflow of perceived freedom in the present is a confluence of the influences of the past and the generation of futures.

Focussing on the gutter where intra-actions of spacetime matter, of disease and discourse mingle, is a natural and narrative locus for addressing paradoxical questions and aporias that are raised by post-pandemic hybrid pedagogies, some of which are explored in the findings below. To provide the scope for this, it is necessary to revisit the role of the 'viewer', a role that found its ascendancy during the quarantining protocols of pandemic. On demand media such as Netflix became one of the few venues to escape a world simultaneously saturated by virus and emptied of (human) life. The outside world, to all intents and purposes was an empty space and therefore, in the phrase of Virilio became endo-colonising, that is, turned inwards towards the private and domestic realm. Instead of being a largely hegemonic shift, this carried with it the generative potential of the gutter. Co-viewing on-demand media via 'watch parties' meant that people who were geographically distant could share their interest of narrative through digital technology. As both media and interest mean 'in-between' (Horvath and Szokolczai, 2020: 4) there is a tight connection between how people sought solace in the generative non-representational space of narrative media during the influence of virus. This made the almost immediate transition to online modes of learning, if not processual, then at least a familiar to many (Singh, Steele and Singh, 2021). The eventual shift to 'hybrid' learning where online video-conferencing technologies supplement the dialogic lecture hall and classroom is one of the unintended consequences generated in the new normal of the post-pandemic university.

In its origins, hybrid can be seen as emerging from the mixed matter of the gutter as a political and policy desire to find a rapid solution to wicked problems. Policy from the old French *policie* 'to manage' (*PIE: deik-* 'to show' or 'pronounce solemnly'), is indicative of an efficient one-way, top-down discourse. 'Hybrid' is an extension, or more accurately, a compound of solemn pronouncements of the unpronounceable, of 'new normal' ways of working. In English it originates from the 17th century meaning 'offspring of different animals or species' and has evident links to the genesis of virus. Its *PIE* root 'hubris' means 'wanton violence, insolence or outrage'. The use of the word 'hybrid' in linguistics ties two words together from different language families (e.g., 'amoral' or 'television') (Carey, 2011). Bridging cultures, languages and ideas together, it compounds where hyphens once punctuated, bringing together the in-between (Lee, 2020). It is the perfect striated response to virus. Given its origins, it is perhaps questionable why its usage has not been more keenly examined, yet a 'hybrid' model adheres to the neoliberal architecture of productivity, consumerism and achievement. It is a word, like engagement, performance and attainment on

which several attributions hang. It is a watchword for the current domain of learning and working. 'Hybrid' models of engagement are utilised in order to mobilise institutional responses to the post-pandemic university. In the Council of Europe's response to the pandemic was of a moment between old and new modes of learning and teaching, insisting that the new normal will not do. Traditional boundaries and spaces, long since filled by virus, should result in an 'educational experience not bounded by limits such as seat time, a rigid calendar, bricks and mortar and stereotypic notions of learning' (Harris and Santilli, 2021: 130). Following this, a plea to HEI leaders calls for 'hybridisation of learning modes as the future of [university] schooling' (Acosta, 2021: 184). Although there is no clear definition, the next normal of hybrid learning should and will look very different, given the level of disruption that virus has caused to the current model.

The lack of definition of hybrid learning is a recurring motif in the literature. In general, it assumes that learning and teaching that would normally be undertaken in the same space and time (e.g., a lecture theatre) takes place through media either synchronously or asynchronously. This can replace some of the content that would previously have been delivered in situ. This can also mean that students are present in the classroom while others join via casting technologies, typically known as 'Here or There' (HOT) students (Zydney, McKimmy, Lindberg and Schmidt, 2019). These are features present in massive open online courses (MOOCs), which were predicted as disruptive to the pre-virus mode of education and favoured large institutions with resources to match. Arguments for their utility are unsurprisingly predicated on their competitive market advantages (Yuan and Powell, 2013), yet in spite of their success have not fundamentally disrupted the market. Synchronous hybrid learning, which is the focus of our project, assumes that some learning and teaching will be undertaken through electronic media (e.g., Zoom) and will be supplemented by pre-virus face-to-face learning. It is important to note that a shift to hybrid learning assumes that all learning was undertaken face-to-face in the past. The use of asynchronous technologies, either in the form of written letters to tutors, or via email and VLEs (Blackboard, Moodle) and accessing papers and books firstly through OPAC, then online libraries, shows that the idea of a purely face-to-face education is assumed rather than borne out by experience (see Lingard and Thompson, 2017) and gives lie to the repeated argument that higher education remains one of the last bastions of the 'old' economy, which did not rely on technologies, electronic or otherwise, for its functioning.

In their review of the state of the art of hybrid learning conducted prior to the wholesale shift to online learning, Raes et al (2020) detail the affordances and challenges to synchronous hybrid learning. Stressing that current society (and more so in influences and generations of the gutter), demands flexibility, accessing education where it would not be normally possible improves equity in education and equality of outcomes. These are broadly aligned with the value to institutions which allows specialist courses to be run, especially where these are curtailed by decreasing student numbers. Where education reaches in the hybrid model is limited by potential access to digital technologies, including infrastructure (broadband) hardware (computers) and software (applications). Being able to plug into online learning also mitigates for days where students are too ill to travel but are well enough to access learning at home: whether this flexibility is a benefit extended to the workplace where someone is too ill to go to work, but not ill enough for work, appears as a moot point and lends itself to the increasing notion of never being switched off, even when off.

Unsurprisingly, literacies, especially digital literacies, are a recognised barrier to both sides when teaching in a hybrid mode: ensuring student literacy through access to hybrid learning is pointless if staff are not able to use and/or modify their delivery through the technologies that are used. While it is accepted that teaching using a hybrid model is not a new pedagogy, the reference to McLuhan's

Understanding Media is telling: teaching is not only materially different when using the hybrid model, but it is conceptually different too. While attainment, motivation and engagement are not identified as being significantly affected when using hybrid modes, the authors nevertheless suggest that online learners 'were generally more passive and often behaved like they were watching TV and not attending a lesson' (Weitze 2015, cited in Raes et al, 2020: 16). Addressing this, results, in deference to Kissinger's geopolitics, typical gutter response in a 'constructive ambiguity' of position, or a 'privatisation of ambivalence' (Bauman, 2000; Marrota, 2002) brought about by the use of communication technologies in domestic settings. HOT students are ambiguous in being there and not there, at home in the in-between. Like the matter of the gutter when engaging with interests through on-demand media (note the hybridisation, the use of hyphens), the inevitable outcomes are 'zoom zombies' shambling through the 'creepy university'. These are people, students and staff alike, who are simultaneously 'there and not there', creating what is known as 'the post-pandemic university, because it will take years to recover from the pandemic' (Hunsinger, 2020). As with Barad's (2019) virtuality, a ghostly violence that effects and affects whilst seeming to not be present, whether we continue to live in a post pandemic university, haunted by a virus that is simultaneously there and not-there remains open to debate.

This research project explores students' experience of hybrid pedagogies in the post-pandemic university. It addresses them through their representation and non-representation in striated and smooth spaces and times. This is an admixture of the present with the confluence of past and future evidenced in the theoretical 'freedom' of choice. In practice however, these are a confluence in the present constructed from the influence of the past and the generation of the future. This limits actual choice and instils a self-discipline in individuals and collectives, many of which can be seen in the protocols during public health responses to virus and which remain in place to this day and are common to neoliberal, cognitive capitalism. In spite of solemn proclamations to the contrary, hybrid modes of education and work do not always mesh with the given technical position of solemn policy proclamations, or the freedom offered by education and work in their online, physical or hybrid modes. With the proverbial hybrid genie out of the bottle, there is both a desire and a need from and for the student body to perceive and execute what the next normal looks like. It is perhaps unsurprising, although unforeseen, that the project's participants' responses to hybridity is one of hubris and sometimes, disbelief. University leaders' inherent and vague disposition that 'hybrid' is the future of learning is both symptom and cause of the matter of the gutter, an ambiguous, ambivalent state that students and staff find themselves in with little or no recourse to previous guidance other than quarantine mandates which are effectively lapsed. Addressing these questions will provide indication and guidance as to what education and education studies in HE specifically will look like in the 2020s.

Project participation

The project ran over a total of 12 months. 15 participants took part, all of whom study or have studied at a HEI and were doing so during the pandemic. The group were recruited through a Master's in Education course and represent a diverse demographic. This includes international students, full-time and part-time students and the group embodies a range of ages, genders and ethnicities. The group experienced the pandemic in many and various locations and ways. Several also had experience of teaching others, in schools, colleges or HEIs during the pandemic, as well as being learners themselves at the university.

Research sites

The project has utilised several sites for research. These have included face to face workshops in situ at the university and in an online meeting platform (Microsoft Teams), where the researchers met with participants who couldn't make the face-to-face workshops. The project also made use of a closed virtual server on the digital app *Discord* [Discord | Your Place to Talk and Hang Out](#). *Discord* is an app that many, although not all, our participants were already using socially and is an increasingly popular discussion and gaming app. There is some emerging research about its role and benefits for use in the university (Bills, 2021). *Discord* offers more informal and social spaces than platforms such as Teams or other VLEs (Virtual Learning Environments) commonly used in HEIs. On *Discord* there is a greater degree of anonymity and greater user control of this, with users able to create and use nicknames and avatars to post and communicate. Discussions are more akin to chat rooms than the linear 'post and reply' threads of Teams or VLEs. This makes for easier and more accessible discussion that users can jump into at any point. It also enables both synchronous and asynchronous communication. This allows real time chat but also for responses days later, all in the same place. It also facilitates the sharing of resources in multi-media forms and quick emoji/gif (graphic interchange format) responses as well as longer form text response.

As such, participants have had opportunities to engage with the project in multiple modes across multiple timescapes, the patterns of which have themselves been an interesting insight into engagement with multi-mode access in online/offline spaces. Multi-site and multi-mode access also enabled the generation of multi-faceted data: talk and text, pen and paper drawing, digital drawing, sharing of articles, media content, gifs and images. The nature of *Discord* enabled participants to be both a part of the production of data and the interpretation of data, as we shared 'work in progress' in the production of analog and digital storyboards. As such, the research was aligned with the Kara's (2020) proposition that research is 'made' rather than done or conducted, a more active, creative and participatory mode of researching.

Hybrid ethnography

To acknowledge the conceptual shift toward researching in spaces where physical and digital domains 'touch, overlap, and blend' (Liu, 2022: 1), we made use of a hybrid ethnography (Przybylski, 2021). This allows a broad exploration of the way hybridity functions (or doesn't) in the scope of participants' lives. As outlined below, while some of the findings are at first blush surprising, given its hubristic origins, they should not be unexpected, especially in the way it is used as a mode of resistance and the reclamation of time through straited spaces. Unlike more traditional research approaches, situated methodologically in singular online or offline spaces, hybrid ethnographies span both sites and as such respond to the complex contemporary interplay of how we experience online/offline worlds. Whereas in-person research is bounded in a time and space controlled by researchers, in hybrid ethnography both researchers and participants are embedded in social relations across networks of online/offline spaces that might reflect multiple overlapping and dynamic identities. For example, our participants and researchers engaged in person physically and/or virtually and as avatars asynchronously and sometimes synchronously. As such, relationships and identities were in a state of being (re)invented and (re)established across research sites.

Being able to 'show up' virtually and fictionally if and as one chooses, gives participants an access that is more fluid than single site research. Indeed, it is also possible to be present and a part of the research but *not* engage or contribute. This is not to say that access is necessarily either more or less

easy for participants, or indeed for researchers, than in traditional single sites. These blurred, liminal spaces that are neither the highly informal online social spaces nor the more formal in-person spaces require a negotiation and a reckoning that is part of the interest of this project. The contingencies of online access for participants raise questions of belonging, communication, confidence, navigation and trust. These are all aspects of engagement that are well documented in single site research but not so much in hybrid spaces. As such, hybrid ethnographies require their own methodological pedagogy which must attend to participation and access, the roles of researcher and participants and allied questions of ethics and are a potential further contribution of this project. Hybrid ethnographies can challenge and disrupt disciplinary norms and knowledge, and we look to consider the affordances and contributions for how and what knowledges are generated in these more liminal, hybrid spaces. We simultaneously illuminate the possibilities of expanded digital literacies for the students who took part in the research. For our student/participants, this is research-as-practice, expanding students' own literacies to become a 'site of praxis' (Hickey-Moody, 2015) as well as method, interested as we are in the possibilities for expanded literacies within HE spaces and commitment to the broader benefits of participants' engagement in research activities.

Digital comic-making

The project used visual storytelling and digital comic making. In the first workshop, participants drew, in analog forms using pens and paper, their own responses to learning in lockdown following discussion prompted by a range of visual artefacts relating to the living and learning through and beyond the pandemic. These artefacts included photographs of pandemic learning spaces, memes around hybrid learning, political responses and copies of comics and visual art from a range of artists and writers made in response to the unfolding situation of the pandemic (Boileau and Johnson (eds) (2021).



Figure 4 – A selection of some of the hand drawn comics from the first workshop

Our second in-person workshop used a digital storyboarding tool called [StoryboardThat](#) (see figure 5). Participants were introduced to some of the affordances of comic-making, in particular the semiotics of this mode to develop their confidence and skill in visual storytelling by an invited PhD student working with comics in education.

Kuttner et al (2021), writing specifically about comic-creation as a form of visual storytelling, note several key affordances in what they describe as an emerging and interdisciplinary field of methodological practice. These include the multi-modal nature and interplay of text and image in

comics that function ‘interdependently’ to ‘interanimate’ each other (2021: 201, drawing on Harvey, 1979). They note how for researchers, the movement between image and words affords opportunities to ‘simultaneously explore the surface interactions and the multiple layers of meanings behind them’ (2021: 202). Another key affordance is the potential to include multiple perspectives and create/reflect the multiplicities of meaning within narratives that can engage emotion, imagination and empathy both in both production and in reception. The choices made in sequencing comics and the possibilities for simultaneity, for several things to happen at once, creates its own spacetime matter logic for meaning-making.

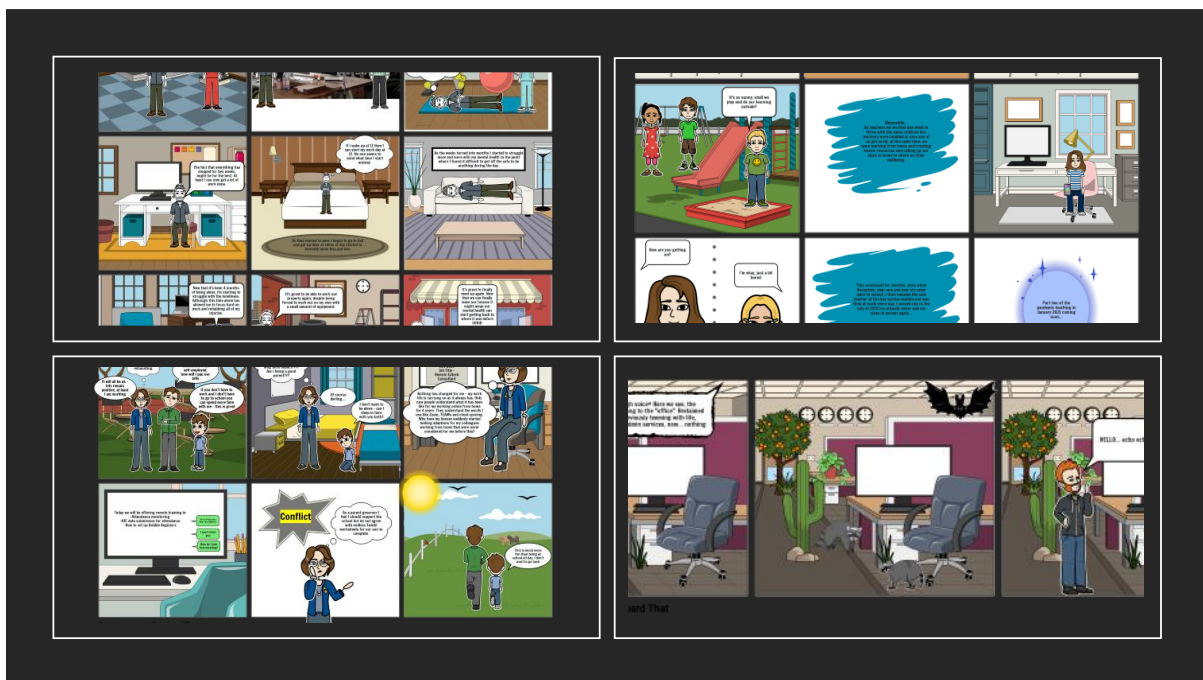


Figure 5: Examples of participants’ creations using StoryboardThat

Visual creative methods

Visual creative methods as a tool for inquiry privileges playful, intuitive and imaginative resources for sense making (Kara, 2021). Hunsinger (2021) considers playful research to be liberating given that it enables the transgression of rules by re-imagining the world differently. As such, creative approaches can be conceived of as smooth spaces. There has been a concerted effort under capitalism to limit and diminish play, to striate educational spaces in favour of economically productive activity, a position seen reflected in education systems, particularly in the dominant arm of education – schooling - or to instrumentalise play (e.g. through gamification or work as play) for particular outcomes. However, the intrinsic nature of play to the social, material, environmental, mental subjective experiences of all aspects of living, what Guattari (2000) considers the ecologies of living, means play can be highly generative in knowledge and sense making. Contra Kant, the role of play is not only in *re*-creation or recreation that is as a simulation or segue from one workday to the next, but instead impels us to remember that ‘free thinking is play to the core’ (Bataille cited in Han, 2021: 83). Privileging play foregrounds open-ended activity, imagination and sharing toward processes that are hidden, ritualistic or customary, to ‘bring forth normally unspoken dimensions of experience, meaning and knowing’ (Pink, 2021:112). In drawing on and drawing about the mundane and routine experiences of life during the pandemic, we wanted to elicit the everyday concerns and experiences and the way these came to matter to participants during the period of learning in

lockdown and its aftermath. Visual methods can afford insights through ‘thinking and making (as aspects of the same process’ (Gauntlett, 2011:4), into phenomena that cannot easily be expressed in words. Drawing creates spaces - spacetime matter) - where ‘connections, associations, linkages of conscious and unconscious elements, memory and emotion, past, present and future merging in the processes of meaning-making’ (Sullivan, 2009:121) can occur. It can elucidate embodied, material, affective responses, where exploring one’s own ‘sensorium’ (Pink, 2021:60). It can be tentative and uncertain and reflect ‘the in-betweenness which is our real situation’ (Grushka, K., 2007:355). The traditional and customary position of play as a liminal space - both inside and outside of culture - parries the enforced event of virus where the proposition of the artificial and arbitrary, unsettling and uncertain ambiguities and liminalities of the pandemic is contingent on rules and laws outside of our control. This is a distinct and separate space, where algorithms, be that of the zombie university or the spread of contagion, are contingently counted, not recounted as a narrative. The connections between uncertainty, creativity and problem solving are well documented (Csikszentmihalyi, 1996/2013) and the initial low stakes sketching and pen and paper drawings in response to the stimuli and the discussions became an initial attempt to ‘make felt the unknowability within the unknown’ (Springgay, 2014:86) to further explore the deeply felt experiences of the pandemic.

Below, we consider some of the key findings from the in person and digital conversations and the analog and digital storyboards produced by participants.

Discussion of key findings

Time and space

The pandemic's disruptive and dislocating effects and affects in time and space were experienced in multiple ways by participants. In common with the technical literature on the affordances of hybrid learning, the lockdown caused a sudden shift from the public space of the university with its highly regulated and predictable clock time, to highly restricted use of the home and online communications. In Figures 6 and 7, the ticking clock is simultaneously a figure of normative timekeeping, an ominous ‘countdown’ to the arrival of the pandemic, representative of a lacuna of time and the fracturing of tempo-spatial norms of the pre-pandemic.

January 2020...was midway through my second year of uni and travelling with my best friend... ..by March the clock struck and lockdown hit

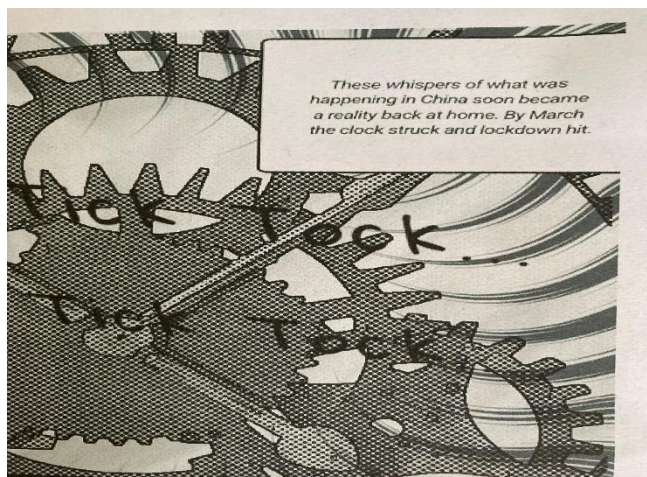


Figure 6: Tick tick tick tick. Thumbnail (panel 2)



Figure 7: Clock time

The experience of the shift to online learning is represented in written text in panel 3 in Figure 8, where the participant notes she was: *'Spending all day in my little box room on either Microsoft Teams in a black void in lectures'*.

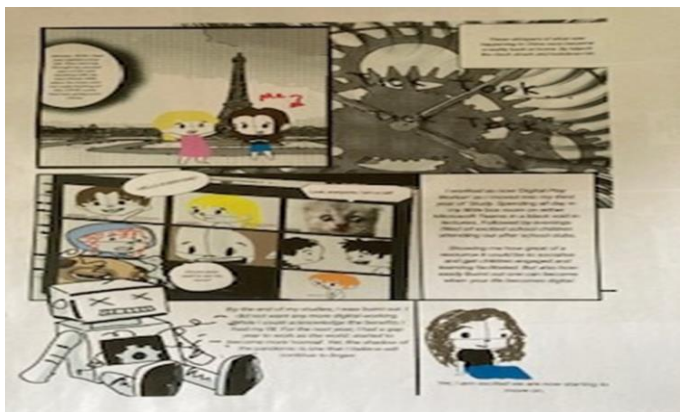


Figure 8: Tick tick, tick tick

This is in contrast with the young children for whom the participant runs an 'after-school' club. As shown in Figure 9's lively depictions, they have a curious engagement with the technology and are fun and playful: *'HELLO EVERYONE!...Do you guys want to see my room?' Look everyone, I am a cat!* With its broader cultural reference to some of the more comedic entanglements with technology during the pandemic (BBC news, 2021), the younger children's more excited engagement with the possibilities of technology were not mirrored for the university students for whom the shift to screen-worlds were considered more restrictive, empty and deficit.



Figure 9: Tick tock tick tock. Thumbnail 2 (panel 3)

The ambivalence toward online learning as depicted in the young children's engagement (or the novelty of the possibilities of technology in the early days of lockdown) compared to the more hesitant (dis)engagement of the university students was evident for those participants who were both learners themselves and educators of much younger learners. Alongside the playfulness and enthusiasm of the youngest children, older students, including undergraduates, enacted another form of playfulness; using the technology to derail and disrupt teaching, for example by sharing Teams links with other non-learners to facilitate their interruption of taught sessions.

Online and Hybrid Participation

Logging onto Teams (the platform used at the university) but not being able to engage was a common response from participants. The specific functionalities of Teams were noted as a factor in this; other engagement with platforms not available at the university (e.g., through VR) was seen by one participant as an immersive environment that offered an accessibility that promoted engagement and a connectivity to others that was beneficial to mental health. Turning up as someone else, as an avatar, was attractive for the control it gave in ways to be present and engaged, while for others, education through a screen brought about the feeling of 'talking into a void' (see Figure 10), a recurrent term and image of reference across the participants' responses.

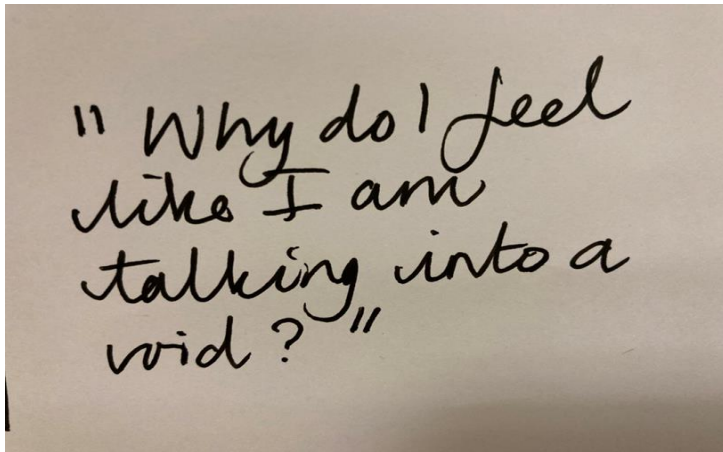


Figure 10: Talking into a void (thumbnail)

In Figure 11, a participant (a criminologist working with youth justice teams) greets his undergraduate class in panel 1, to be faced with 12 blank and silent screens. His optimism for an increased engagement on returning to campus face to face is crushed. In the final panel depicting the return to on campus activity, he is faced with an empty lecture theatre.



Figure 11: participant storyboard

This lack of attendance once restrictions were lifted and on campus learning became possible again was noted by another participant - also a lecturer in HE. In sessions which would be expected to have 220 students, now had barely half that number turning up to lectures. A new attendance monitoring policy at the university was a post-pandemic response to the absence of students on campus. This was felt by some participants as the directional approach they needed because they lacked motivation and incentive to attend in person post pandemic. For others, attendance monitoring was a blunt surveillance and disciplinary tool, and they were resistant to the University expectation and discourse of physical return as 'what students want'. Attendance monitoring as a proxy for engagement, when participants felt the considerable challenges to engagement were a lack of real care or understanding about the multiple challenges of students' lives, such as having

multiple care responsibilities, health concerns, the cost and time of commuting, some of which we explore further below. The 'easy solutions' of punitive attendance monitoring extended to other 'efficiency things' that have stuck post pandemic. One participant who was a teacher noted how online parents' evenings, highly controlled 5-minute slots where restricted time and human contact 'forces you to go directly to the data'. Online spaces were seen less 'human', '...where the data matters'. An accountable space aligned to the performance/performance management of students and teachers where the human is displaced, trying to enter back into the conversation amidst the technological and domestic hiccups, as in Figure 12:

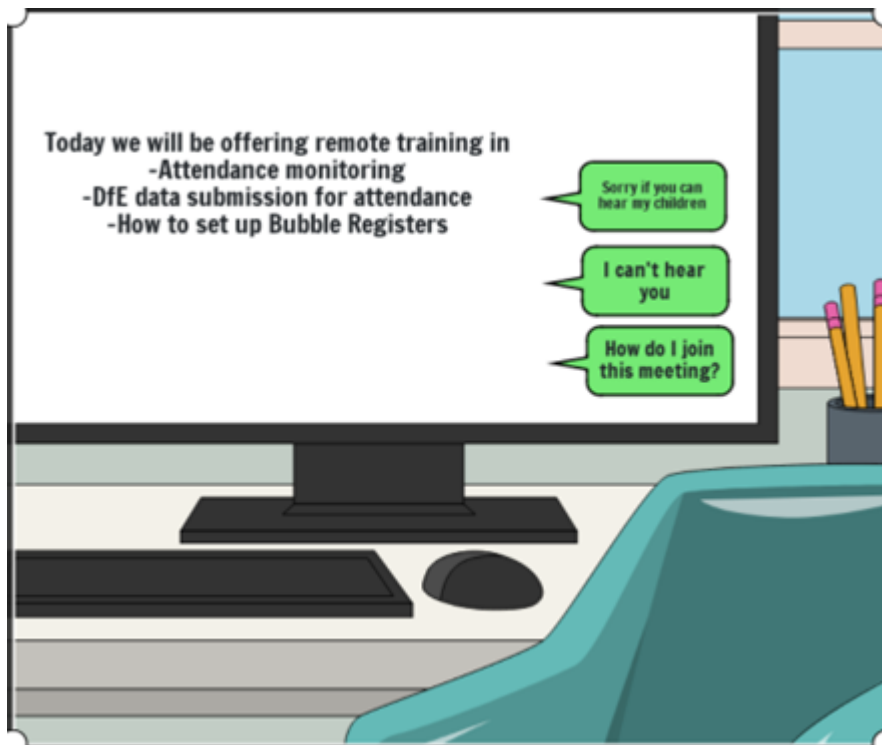


Figure 12: Thumbnail. I can't hear you

As a collective, participants rejected the '*micro-management*' of the pre-pandemic university of time and space and demands for 'being present' to be replaced by a desire to resist going back to the '*exhausting*' micromanagement of pre-pandemic time and space, with an especial focus on rejecting commuting. Yet, if they were commuting, they could also engage in learning. This shift in both the conception and perception of time, space and place requires further examination and thinking for practices and pedagogies in the hybrid university and will hopefully be addressed in a forthcoming module to be introduced on the MA Education at Birmingham City University.

Hybrid participation: Project participation

Months of use of online spaces resulted in an online presence where '*opting out seems more normalised*', and where it is '*OK not to be present*'. This was not necessarily a not turning up, but what one participant described as being '*tuned in. Tuned out*'. Participants felt the ambiguities, inconsistencies and contradictions around expectations for hybrid learning and as researchers we also experienced this in the engagement on the project. What people said they wanted (e.g., in person meeting), was not always how they were prepared to engage, often opting out at the last

minute to attend to personal demands and joining instead online. Given the increase in the use of video conferencing technologies and their increasing endo-colonisation of the domestic and private sphere of the home, the blurring of personal boundaries is perhaps unsurprising. The project participation mirrored some of the learning behaviours noted above: the option to not be seen on camera suggests that the act of 'viewing', a key component of on-demand media use during the pandemic worked back to the educational sphere. The choice not to be seen on camera still represents an act common with the mixture of the smooth and striated spaces and times of the gutter, where representation and non-representation are mixed matter. As this project used a hybrid ethnography with no privilege given to online or dialogic arenas, the online sessions were revealing in that the majority of participants – and in one session, all of them – kept their cameras off. While the participants remained talkative and responsive to the topic, the disjunction that arose from participants transitioning from their car to their home reinforces two contrasting notions. First, that the traditional 'dead time' and 'non-places' (Auge, 1995) no longer applies. Mobile technologies and especially that of the Internet means that it is possible to take part in work, education or research even when not at home (or at work). Second, that the increased use of these technologies, as seen above, offers a choice of opting out of certain elements of participation. In spite of the offer of incentives such as lunch, refreshments and the opportunity to meet within traditional dialogic spaces, the online sessions were at least as well attended as those carried out face-to-face. Having the option to join online was seen as not a substitute, but as an offer that should be parallel to more traditional offers. In a Boolean sense this is not 'If Or' but rather 'And', suggesting that this is a dynamic of bringing together, typical of the gutter and hybrid approaches that does not privilege one mode of representation over another. The timings of the sessions, outside of conventional working hours (post-1700) may have contributed to this, however the level of non-representation, either through not turning a camera on or asking the group to 'bear with me while . . .' suggests that these are blurring not only of domestic and discourse, but some reclaiming of the annihilation of time over space (Virilio 1984; Bauman, 2000), in the sense that the participants were happy to give their time, but at least partly, if not wholly on their terms.

Hybrid pedagogies and everyday life

Specific to the university but echoed in government policies around lockdowns at the time, participants spoke of arbitrary, inconsistent and illogical rules that led to a general apathy towards the university's decision making, and some refusal/rejection of the policing of time and space by university security and management and wider surveillance, threaded through with fears of racialised policing as part, for some, of the structures of everyday living (see figure 13).

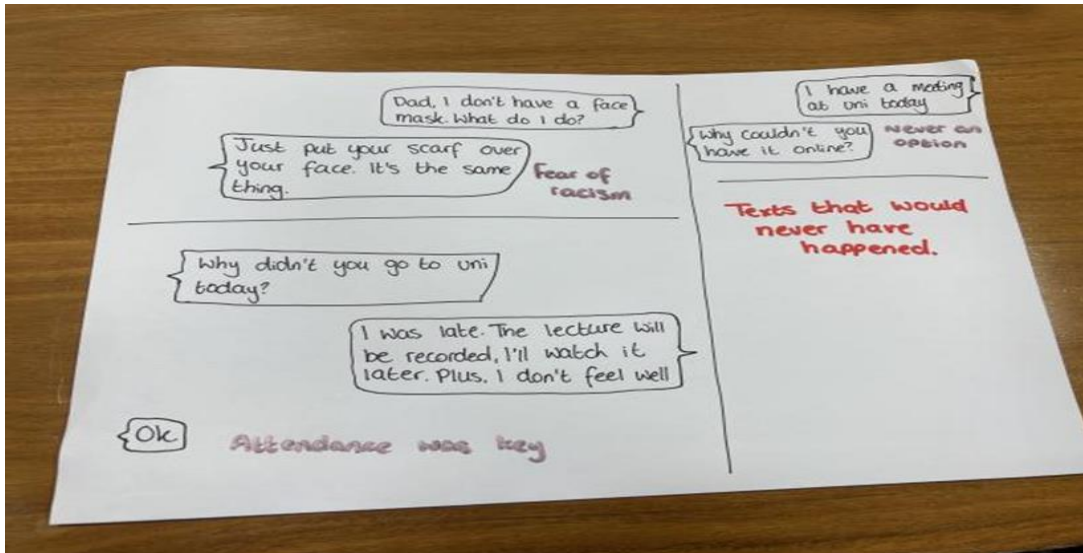


Figure 13 – The ambiguity of hybrid pedagogies: the conflation of racism with virus; tuning in and out

Participants spoke of what they perceived to be *'unspoken shifts to hybridity'* but in ways that they have not been part of discussing or defining or fully understood. Despite the university expectation of a return to campus and a policing of time through attendance monitoring, some of the participants felt they had experienced *'less rigid structures and expectations'* around learning. This is shown in Figure 14, where *'disengagement'* from online learning became the norm, rather than the exception, tightly connected the strictures around social lives that were not in place pre-pandemic.



Figure 14 – Pre and post pandemic ways of living and education

The reclamation of space through time as money

As Figure 14 identifies, the reclamation of time, be that saved through commuting or not requiring to be in classrooms lead to an increase amount of time available to be spent with family, a common element in the storyboards.

In common with Figure 13, the 'option' of not needing to attend where there were online options is an affordance where things beyond control such as the weather, or with feeling unwell, permits and allows control over some aspects of everyday life that would normally be enforced in the rigid boundaries of temporality (timetables, deadlines, calendars) and space (classrooms, vehicles used for commuting). The mixing of the gutter, in this case the individual's desire for sovereign control, *through* the use of technologies that are framed as 'productivity' sees a realignment from being at the behest of techniques of control (Germain 2022) with the redeployment of these to the individual's own ends. The pairing of 'spending' time with 'saving' money should not be overlooked: time is still money, but in this case, it is not solely in service of the furtherance of productivity and instead allows and expansion of the space and time of the domestic sphere, counter to the argument that the imposition of viewing technologies are a necessary intrusion of the public (work, education) into the private.

As seen in Figure 11, many of the participants saw the benefits of the time and money saved through not commuting, up to several hours a day was seen to offer more time for other activities, caring responsibilities and other work commitments. Of those students in full-time education, the majority do paid work in addition to their study. HEPI (Higher Education Policy Institute) 2023 data shows increasing numbers of students in paid employment (55% in 2023, up from 34% in 2021), an increased average hour spent in employment (7.5, up from 4.8 in 2019 and 13.5 hours for those with a job) and increased numbers for other proxies for time constraints/ poverty such as care responsibilities or living a long way from campus (Neves and Stephenson, 2023: 35-37). These figures are only available in this detail for full time undergraduates, so only begin to give us a measure of what is heightened for postgraduates in a post-92 university such as our participants, including the likelihood that all these factors and more intersectional identity markers (e.g. (dis)ability and health), are compounded for students with care obligations.

One parent of young children who studied part time spoke of the enjoyment and freedom of accessing activities and learning that he would never have accessed previously, while simultaneously caring for and entertaining his children, who occasionally appeared in online spaces, a phenomenon of blurring of family and professional spaces traditionally kept separate. However, the (now) quieter spaces of the university became a venue for 'getting things done', in contradistinction to home (especially for students of education), where the home was the venue for marking, lesson planning etc. and often a noisy, crowded shared space of multi-generational family members. There was an inversion between place and space.

The implications for inverting place and space were significant for some participants. While teachers may be aware of the effects of domestic and caring responsibilities from speaking with students in traditionally coterminous spaces, places and times, hybrid learning catches this in a double bind, with these responsibilities enacted in students' home space and then transmitted into the homes of other students and staff, as seen in Figure 15. Hybridity in this form attests to the flexibility required not only of the learning but demands of the domestic realm: with a cat's hunger taking precedence over the learning needs of a student. This creates an arena that would not occur in traditional dialogic spaces, as the absence of the student from the home means presence in the classroom. In these spaces and times of the gutter, the confluence of competing demands means that even relatively banal operations are just as vital and placed on an equal – perhaps even higher - pedestal with education. From the liquid modernity of higher education comes the final privatisation of

ambivalence: the domestic, private realm is simultaneously present and absent: the harder one tries to be present in all spaces and places at all times, the less they succeed in realising their commitments to themselves, families and the education milieu. Even learning within the freedom of HE becomes a discipline within itself, brought into relief by the student being dislocated and removed from the final panel (into the gutter), so that missing the details for a forthcoming exam is little more than alphanumeric jargon, the language of technology superseding the realities of everyday life.



Create your own at Storyboard That

Figure 15: hybrid learning

Health, wellbeing and burnout

It is unsurprising that the disruptive and dislocating effects and affects in time and space were experienced in multiple ways by participants. Sudden shifts from the public space of the university with its highly regulated and predictable clock time, were supplanted by the sometimes highly restricted use of often limited spaces of the home and online communications, which as is now established in the literature and follows a pattern where, in all pandemics throughout history pre-existing inequalities are exacerbated with those 'individuals and countries with least resources most affected by the shock' (Stokes 2022: 3). England's healthcare system was especially prone to these problems, with a low ratio of medical and nursing staff per capita in comparison with the OECD average. While there were no participants who experienced hospitalisation due to acute or chronic ('long COVID') symptoms of the virus, the psychological effects of the virus were found to be acute and chronic. A similar exacerbation of inequalities can be witnessed in compulsory education. In the 2018/19 school year overall absenteeism figures stood at 5.7%. Provisional DfE data for the 2022/23 school year to date shows this has risen to 10.5%. Persistent absence amongst pupils eligible for Free School Meals has more than doubled from 8.4% of pupils in 2018/19 to 18.8% of pupils in 2022/23 to date.

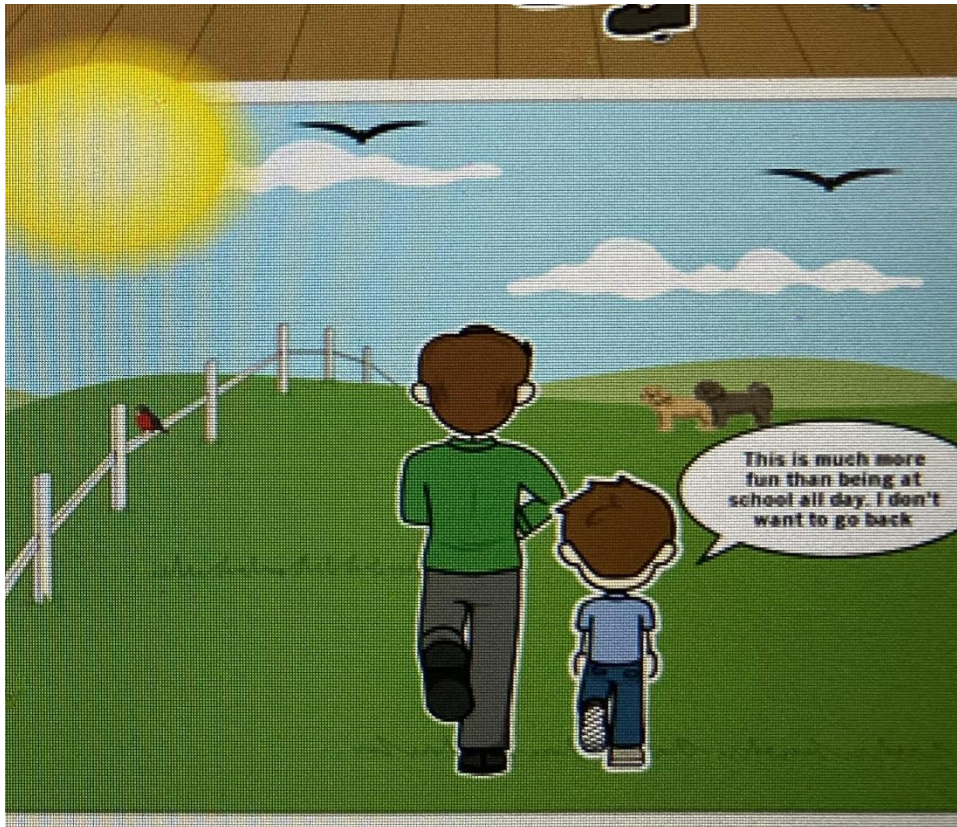


Figure 16: Much more fun than being at school. Thumbnail.

Where normed and normalised behaviour was supplanted by viewing pictures of streets filled with absence, these spaces were compounded by the lack of normalised temporal logics and where normed expectations no longer made sense, especially those expected in education of teaching, learning, collaborating, debating and disagreeing: hence the oft used aphorism of 'we're all in this together', as everyone's experience, while individual is also universal. To abate, or at least address this, 'when there's nothing else to do, the best way to feel like you're still part of society is to watch what everyone else is watching' (Three Per Cent, 2020), familiar to watching streaming services during the pandemic, or the news broadcast from deserted cities, but also manifest in the individual experience of one of our participants, but familiar to all – and in terms of the mute button – continues to this day.

The universal individuality of pandemic experiences can also be seen from a parallax view. Many participants spoke passionately about wistfully remembered rejoinders with nature, using the freedom from normalised clock time to spend time in ways that transcended the price of 'spending' time, to those of individual and collective value of freedoms to curate time differently with family, on health and self-care. For some, the pandemic offered the opportunity to redress imbalances between work and wider life: one participant spoke of how the lockdowns had saved him from the pre-pandemic burnout he was experiencing, arriving at an auspicious moment to take stock from the excess rigours of work to the exclusion of all else: watching became waiting for a time to be better (Chabot, 2018).

While burnout was remedied for some participants, a more common response was burnout caused by the excess of digital communication, which was the chief means of social contact, in the scope of

work and leisure, during the pandemic. Burnout itself is a technical term, lending itself to notions of mechanical injury, such as the burning out of tyres on a vehicle, or the overheating of electrical components in a computer, rather than being centred on humanity's relationship with nature as seen in Figures 16 and 17.



Figure 17: I prefer to be here

This generates a curious hybrid between human and machine, illustrated in the comic of the burnt-out robot (Figure 18) which conflates the human with the machine, which, having expended all of its energy, lies dejected and discarded following a period of intense intersection between machines, thus leaving the physical state in a purely technical form:

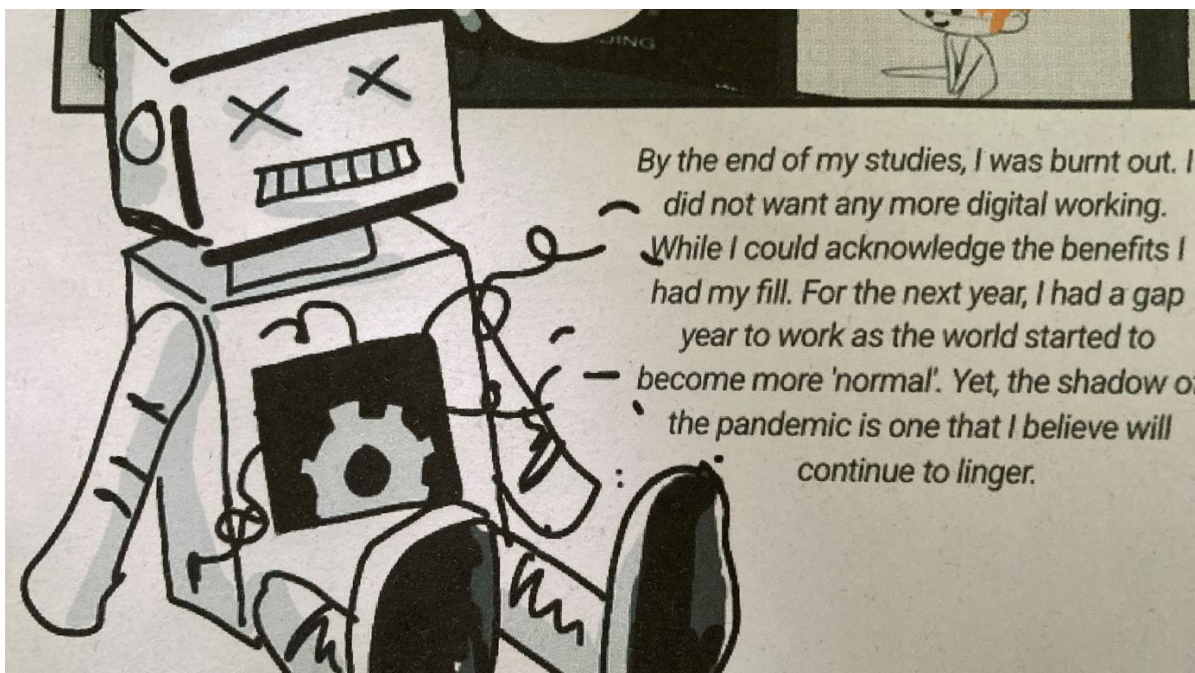


Figure 18: The Burnt-out Robot

Appraising the effects and affects of lingering psychological symptoms long after the pandemic is one of the central purposes of the present study. While physical symptoms and illnesses can transition to endemic status so humans - and animals - can co-exist with a novel virus, humans find the transition to technical modes of working and learning through and with machines difficult, and in some cases impossible, to negotiate. Burnout among medical and healthcare professionals is synonymous with the pandemic (Jalili et al., 2021) with healthcare workers expected to excel in

taxing and unfamiliar conditions, while TV viewers watch on synoptically, individually and collectively hoping for utopian outcomes from dystopian conditions. As the results of the present research affirm, this has a specifically gendered dimension (Aldossari and Chaudry 2021) with entanglements between fulfilling societal expectations of emotional caring, education of younger kin members, full time work and impromptu healthcare focussed on simultaneous prevention and cure extending the conceptualisation of global burnout to ‘societal pandemic burnout’ (Queen and Harding 2020). This is a situation and symptom that is as endemic as the virus itself. For the burnt-out robot participant in the study, the only way to address to this was to disconnect entirely from electronic and mechanised processes of education and socialising that were associated with societal pandemic burnout: *‘For the next year, I had a gap year to work as the world started to become more ‘normal’.*

The ongoing impact on mental health and wellbeing is further detailed in Figure 19, with a repeating discourse evident in the lack of opportunity to discuss their own pandemic experiences and how important this was to understand the multiple factors at play in their ‘post’ pandemic ones – troubling the idea, as our ‘burnt out robot’ participant did that we really are ‘post’ pandemic, with affects and effects stretching far beyond the time horizon of ‘treating’ the illness.

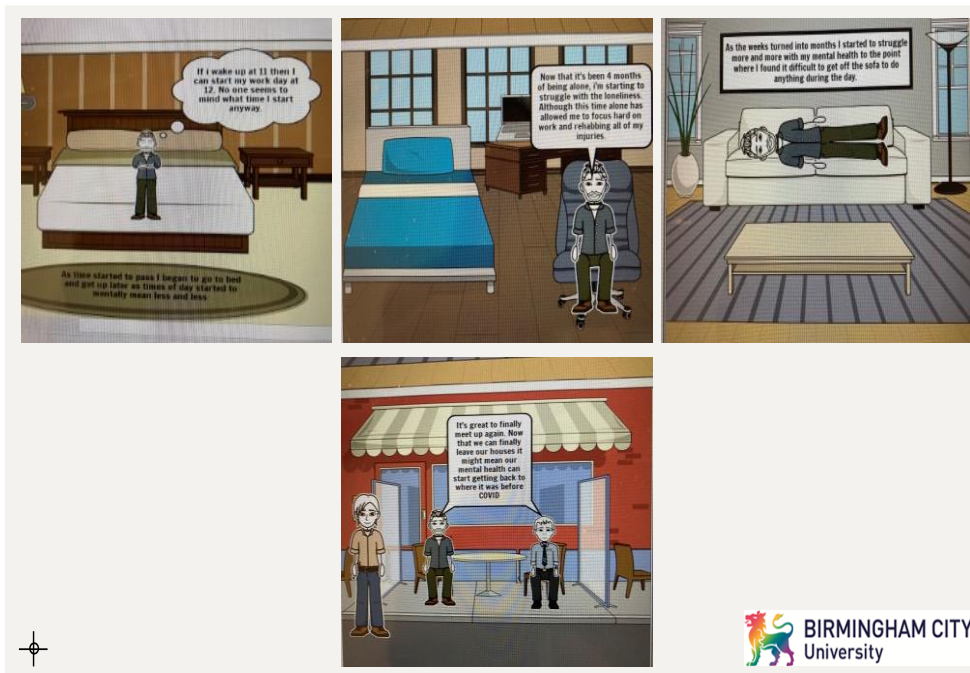


Figure 19: Physical and mental well-being

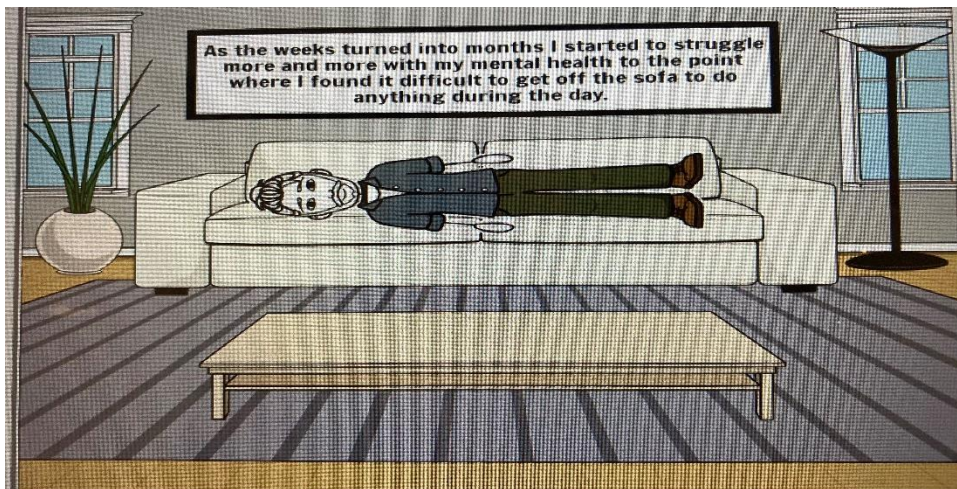


Figure 20: Physical and mental well-being (thumbnail panel 3)

In Figure 19, rehabilitation from physical injuries is at odds with the decline in mental well-being. The juxtaposition of body and mind through Cartesian dualism is a central component of western / northern hemisphere classical thought, demonstrating, in common with the robot, the difficulty in achieving balance, let alone hybridity. The participant notes that even where time away from the rigours of time management of education in the contemporary university allows physical improvement, the side effects of loneliness are both acute and chronic (Figure 20), only starting to rebalance when, in Figure 21:



Figure 21: *it's great to finally meet up again. Now that we can leave our houses it might mean our mental health can start getting back to where it was before COVID.* Thumbnail, panel 4)

The longer-term consequences of this are in abeyance. While the UK did not prevent access to the public sphere within its own borders (unlike other nation-states such as Italy and Austria), there remained a requirement for international travellers to show proof of vaccination before journeying. Again, the contrast and contradiction in hybrid modes of living with / beyond the virus remained: the desire to return to a 'normal' and what the 'new normal' looked like were at odds with one another.

Conclusions

This paper starts by outlining the nascent exploration of the concept of the gutter. The panels of a comic is the representational space. The gutter is the non-representational. Where the former tells the story, the latter encourages the viewer to fill in the narrative. As an organising concept, the gutter is presented as a biological source of virus and through the etymological links of *influence* of *influenza*, is generative of unknown possibilities, e.g. a virus which evades human immune systems and the unintended consequences and possible worlds which arise. As a collection, bubbling-up and overflow of spacetime matter, the gutter mixes the smooth spaces of subjectivities with the objectivities of striated spaces. These do not operate in Boolean binaries of 'if', 'then' 'or' but are a concentration of 'and...and...and' (Deleuze and Guattari, 1988). As the project has progressed, its deployment of hybrid ethnography through hand-drawn and digital storytelling offers a theoretical conception of participant experience, which raises as many questions as it addresses.

The findings are as compelling as they are paradoxical. Following the quarantining measures of governments, public bodies through technical literature or protocols compelled societies to return to a 'new normal' which invariably requires an element of hybridity. Although scantily defined in the literature, 'hybrid' in its articulation of hubris, is as much a product of the consumption of the matter of the gutter as it is an empty institutional signifier, a confluence of the smooth and striated spaces.

As the findings show and in common with the Internet's broader theory and practice as a venue of representational and non-representational space, 'hybridities' have been orientated as much to the preferences of individuals as towards the ends of capital. Choice over how and when to participate is key. Factors such as illness and weather influence individuals as to 'opting in' or 'opting out'. Further to this, 'tuning in and out', an action associated with the rhythms of music, or using analogue technologies is a key consideration. What would be seen as unacceptable in a traditional dialogic arena such as not displaying a face become acceptable choices. The 'masking' through 'screens' so common through the pandemic, is extended to the online world. As shown in the hand-drawn comics, this has specific implications for those from religions where face coverings are religious symbols, especially where this intersects with gender. This is not explored in detail here and requires further interrogation. There is further use for the conceptualisations of spacetime matter of the gutter to understand the shifts in learning and living after the disruption of COVID 19. There is further significance in the findings for educators across all sectors, not least in HE where the study was conducted, for the very different conceptualisations and uses of time and space by students and the necessity to keep such considerations dynamic through further engagement and research with students in the post-pandemic university.

References:

- Alaimo, S. (2010) *Bodily Natures: Science, Environment, and the Material Self*. Bloomington, IN: Indiana University Press.
- Aldossari, M. and Chaudry S. (2021) 'Women and Burnout in the context of a Pandemic' *Gender, Work Organisation*, 2021 (28): 826–834
- Auge, M. (1995) *Non-Places: Introduction to the anthropology of supermodernity*, London: Verso

- Barad, K. (2013) Ma(r)king time: Material entanglements and re-memberings: Cutting together apart. In P.R. Carlile, D. Nicolini, A. Lamgley and H. Tsoukas (Eds.) *How Matter matters: Objects, artifacts, and materiality in organization studies* (pp.16-31). Oxford University Press.
- Barad, K. (2014) Diffracting diffraction: Cutting together apart. *Parallax*, 20(3), 168-187
- Barad, K. (2017a) No small matter: Mushroom clouds, ecologies of nothingness, and strange topologies of spacetimemattering. In A.Tsing, H. Swanson, E. Gan and N. Bubandt (eds.) *Arts of living on a damaged planet*. Minneapolis: University of Minnesota
- Barad, K. (2017b) What flashes up: Theoretical-political-scientific fragments. In C. Keller and M-J Rubenstein (eds.) *Entangled worlds: Religion, science and new materialisms*. New York: Fordham University Press.
- Barad, K. (2019) After the end of the world: Entangled nuclear colonialisms, matters of force, and the material force of justice. *Theory and Event*, 22 (3), 524-550
- Bauman, Z. (2000) *Liquid Modernity*, Cambridge: Sage
- BBC News. February 2021: [Cat Zoom: Lawyer Rod Ponton surprised to become internet star - BBC News](#) Accessed 31.8.23.
- Bills, O. (2021) Taking the University Online with Discord. [Taking the University Community online with Discord – The post-pandemic university \(postpandemicuniversity.net\)](#) Accessed 30.9.2022.
- Boileau, K. and Johnson, R. (Eds) (2021) *Covid Chronicles. A Comics Anthology*. Graphic Mundi: The Pennsylvania State University Press.
- Chabot, P. (2018) *Global Burnout*, London: Bloomsbury
- Csikszentmihalyi, M. (1996/2013) *Creativity: the psychology of discovery and invention*. New York, NY: Harper Collins Publishers.
- Deleuze, G., and Guattari, F. (1980/1987) *A Thousand Plateaus: capitalism and schizophrenia*. (B. Massumi, Trans.) Minneapolis: University of Minneapolis Press.
- Gauntlett, D (2011) *Making is connecting: the social meaning of creativity, from DIY and knitting to YouTube and Web 2.0*. Cambridge: Polity Press.
- Germain, G. (2022) 'The Metaphysics of Virality: A Critique of the Theory of Flows' *International Political Anthropology*, 15:1, 81-95
- Grek, S. and Landri, P. (2021) 'Education in Europe and the COVID-19 Pandemic' *European Educational Research Journal*, 20:4, 393-402
- Grushka, K (2005) Artists as reflective self learners and cultural communicators. *Reflective Practice* 6:3. 353-366
- Hickey-Moody, A. (2015) Beside ourselves: worlds beyond people, *British Journal of Sociology of Education*, 36:5, pp. 802-813.
- Horvath, A. and Szokolczai, A. *The Political Sociology and Anthropology of Evil*, London: Routledge

Hunsinger, J. (2021) Toward a critical theory of playful research in the internet age: Exploring playful research in Second Life, Minecraft, and hackerspaces/makerspaces. *Journal of Play in Adulthood* Available open access at: www.journalofplayinadulthood.org.uk

Jalili, M., Niroomand, M., Hadavand, F. et al. (2021) Burnout among healthcare professionals during COVID-19 pandemic: a cross-sectional study. *International Archives of Occupational Environmental Health* 94: 1345–1352.

Kara, H. (2020) *Creative Research Methods. A Practical Guide* (2nd edition). Bristol: Policy Press.

Kuttner, P. J., Weaver-Hightower, M. B., & Sousanis, N. (2021). Comics-based research: The affordances of comics for research across disciplines. *Qualitative Research*, 21(2), 195–214.

Liu, R.-F. (2022). Hybrid ethnography: Access, positioning, and data assembly. *Ethnography*, 0(0).

Marotta, V. (2002) 'Zygmunt Bauman: Order, strangerhood and freedom' *Thesis Eleven*, August 2002: 36-54

Massumi, B. (1988) Translator's Foreword: Pleasures of Philosophy, in *A Thousand Plateaus: capitalism and schizophrenia*. London: Continuum.

McCloud, S. (1993) *Understanding Comics: The Invisible Art*. New York: Harper Perennial.

Neves, J. and Stephenson, R. (2023) Student Academic Experience Survey. HEPI (Higher Institute Policy Institute). Available online at: [Student-Academic-Experience-Survey-2023.pdf \(hepi.ac.uk\)](https://hepi.ac.uk/Student-Academic-Experience-Survey-2023.pdf) (Accessed 26.8.2023)

Pink, S. (2021) *Doing visual ethnography*. London: SAGE.

Przybylski, E. (2021) *Hybrid Ethnography: Online, Offline, and in between*. Los Angeles: SAGE

Queen, D. and Harding K. (2020) 'Societal Pandemic Burnout: A COVID legacy' *International Wound Journal*, 2020 17: 873-874

Singh, J., Steele, K., Singh, L. (2021) 'Combining the Best of Online and Face-to-Face Learning: Hybrid and blended learning approach for COVID-19, post-vaccine and post-pandemic world' *Journal of Educational Technology*, 50(2): 140-171

Springgay, S., (2014). Approximate-rigorous-abstractions: Propositions for post-humanist activation in educational research. In N. Snaza and J.A. Weaver (Eds.), *Posthumanism and educational research*. New York, NY: Routledge

Stokes, J. (2022) 'Inequalities Exacerbated: An all too familiar story' *BMJ Quality and Safety*, Online

Sullivan, A. (2009) On poetic occasion in inquiry: concreteness, voice, ambiguity, tension and associated logic. In Prendergast, M., Leggo, C. and Sameshima, P. (eds) *Poetic Inquiry: vibrant voices in the social sciences*, 111-26. Rotterdam: Sense Publishers

Taylor, A. (2022) Learning to walk the wire: preparing students for precarious life, *British Journal of Sociology of Education*, 43:5, 786-803.

Virilio, P. (2008) *Negative Horizon*, London: Continuum

Worobey, M. (2021) 'Dissecting the early COVID-19 cases in Wuhan' *Science*, 374: 6572, 1202-1204

Worobey, M. et al (2022) 'The Huanan Seafood Wholesale Market in Wuhan was the early epicenter of the COVID-19 pandemic' *Science*, 377: 6609, 951-959

Zydney, J. M., McKimmy, P., Lindberg, R., & Schmit, M. (2019). Here or there instruction: Lessons learned in implementing innovative approaches to blended synchronous learning. *TechTrends*, 63:2, 123-132