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'COVID MADE ME DO IT': NARRATIVES OF PIVOTING IN RESEARCH

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INTRODUCTION

This paper is based on an invited address at the 2nd International Conference on Advanced Multidisciplinary Research (ICAMR) organised by the Research and Community Service Institute of Universitas Negeri, Makassar, Indonesia, in late 2020. It speaks to the theme, "Utilizing research findings to create sustainable solutions for human welfare." The study is part of a broader, ethics-approved phenomenological study of the lived experiences of graduate students in the doctoral spaces of work-based learning (WBL) or professional practice in an age characterised not only by resilience in the face of pandemic, but also by the post-truth fearmongering impacting people's consciousness. While the affordances of technology have created multiple narratives of triumph over lockdown in education in a major information dump of fast studies, neither the pedagogical and critical theories behind those affordances nor the experiences of postgraduate learners managing long-term projects has received due scrutiny. Drawing on a small part of an emerging dataset, this study outlines the broader context of crisis age technology-led learning, suggests pedagogical factors behind the perception of short-term resilience, and presents cases of 'pivoting' in postgraduate work in complex times. The study is predicated on and concludes that four themes have capacity in driving the endurance of such work: community, transdisciplinarity, emergence and sustainability.

NARRATIVE I: A TALE OF SUPERCOMPLEXITY AND POSTGRADUATE LEARNING

In a recent *Inside Higher Ed* (Jaschik, 2021), we read that the University of Minnesota, Twin Cities, has ceased enrolling doctoral learners owing to the pandemic. When it comes to responses to the COVID-19 crisis, stopping entry to long-term programmes might appear reasonable. Although successful candidatures bring prestige and often government funding, they also pose risks owing to their duration of 2.5 years at an absolute minimum. Risk managers perceive such durations as problematic in an era of such an uncertain future that what happens as soon as tomorrow could change everything.

For enrolled doctoral learners, and this study operates in the doctoral spaces of work-based learning (WBL) or professional practice as is appropriate for *Scope's* 2022 theme, COVID-19 has afforded an opportunity to create what Barnett had in 2004 called "authentic being" (p. 259) in a study of learning for an unknown future. Such moments as these remind us that engaged real-world responsiveness in education has the capacity to create "a self that is adequate to such an uncertain world" (p. 254). This is achieved through "encountering strangeness ... wrestling with it and ... forming one's own responses to it" (Barnett, p. 257). Making sense of mayhem, Barnett argued in 2000, remained a constant function of higher education, even in the 'supercomplex' age where knowledge lacks status and legitimacy in an era hijacked by rampant neoliberalised forms of entrepreneurialism. Bengtson (2017) demonstrated how prescient Barnett's notions have been, and 2020 onwards has offered us the opportunity to put them to the test.

Twenty plus years on, in order to survive 2020, 2021, 2022 and beyond, universities internationally need to promote epistemologies that are, in Barnett's (2000) terms, "open, bold, engaging, accessible," and, above all, "conscious of their own insecurity" (p. 409). This requires the use of underpinning pedagogies and "ways of understanding" (p. 416) that afford these qualities of the construct, 'supercomplexity.' My study examines some aspects of "ways of understanding" that afford postgraduate learning for a supercomplex world. These ways can be understood as functions of at least four key themes: community, transdisciplinarity, emergence and with them, sustainability.

The Minnesota example is, of course, just the tip of the iceberg when it comes to institutional responses internationally and a conveniently current launchpad for this enquiry into how currently enrolled doctoral learners are travelling. Ceasing enrolments, though, speaks to the increasingly fractured nature of the neoliberalised higher education provider and points to an ideology where entrepreneurialism and human welfare come from oppositional understandings of the purpose of higher, particularly postgraduate, learning. If COVID-19 has been successful in any particular way, it has been in its ability to deconstruct the false epistemology of the neoliberalised (or 'managed' or 'audit culture') tertiary institution. We should not be simply generating conveyorbelt entrepreneurs, but researchers who are resilient rather than resiling, pivoting rather than panicking, and embracing the affordances of communities of practice, the necessity for education to be sustainable, the potential of transdisciplinarity (itself a subset, perhaps, of multidisciplinarity) and the value of methodologies that are emergent rather than prescribed.

NARRATIVE 2: A STORY OF COVID-19, TECHNOLOGY AND PEDAGOGY

One of the dominant micronarratives of education in the age of COVID-19 was the Zoom boom. Zoom entrepreneur Eric Yuan emerged from a lacklustre videoconferencing suite run by Cisco Systems to create and adjust Zoom Video Communications in a classic case of 'right time, right place' just prior to the shift from face-to-face (F2F) working and learning to online. Fifteen billion dollars later, Yuan has left the world without doubt that Zoom or its corporate clones are indispensable. Social media was flooded with images of the multiple tiles of Zoomrooms as people took to the affordances of Zoom though it took only a few weeks before another concept leapt into the lexicon: Zoom fatigue; being Zoomed-out.

However, those screenshots of multiple faces articulated why Zoom succeeded: it channelled the affordance of the Community of Practice. Locked down and isolated, people joined these online as ways to express, articulate, make meaning, socialise and simply be present. The Cartesian ontological cliché was now: *I Zoom therefore I am.*

Research with 'COVID-19' in the title boomed like a micro-industry, particularly research connecting the affordances of forms of digital technology and the cognitive internet of things and other 'innovations' to the new educational normality. Much of the work, though, is underpinned by my core themes, particularly community. E-books, such as those edited by Ferdig et al. (2020) and Gill et al. (2020), compiled short experiential impressions of practitioners and shared tips in the context of teacher education and the Ferdig edited volume contained a whole section on community and collaboration while the Gill et al. book (2020) contained my own study of pedagogical being in lockdown and the importance of community. Rovai (2002, p. 6) had described ''desire to learn,'' as the core uniting factor of collaborative learning in online communities: ''Learning represents the common purpose of the community as members ... grow to value learning and feel that their educational needs are being satisfied through active participation'' (p. 6). This was never truer than in 2020–2022.

Experiential research and evaluation studies of innovations within flipped classroom contexts, like that of Dianati et al. (2020), became plentiful. These researchers used the Technology Acceptance Model (TAM) to mine learners' perceptions of the affordances of Padlet (collaborative canvas), Kahoot! (live polling), and Cirrus (for annotation) but without deep recourse to the underpinning philosophies and pedagogies which are in fact the constants in times of change. How easy they were to use, how much fun they were and how useful they

were perceived to be are hardly deep phenomena, but the key conclusion that interactivity, collaboration and engagement are key again speaks to the opportunities for socialisation that underpin a community of enquiry approach to online learning (Andrew, 2014).

Studies of the affordances of key technologies for learning were plentiful before COVID-19. Schindler et al. (2017, p. 22) had shown:

Of the technologies we reviewed, digital games, web-conferencing software, and *Facebook* had the most far-reaching effects across multiple types and indicators of student engagement, suggesting that technology should be considered a factor that influences student engagement in existing models. Findings regarding blogs, wikis, and *Twitter*, however, are less convincing, given a lack of studies in relation to engagement indicators or mixed findings.

COVID-19 seemed to be a catalyst for the speeding up of the fourth Industrial Age – Cyber-physical systems (following mechanisation, mass production and computer animation as bywords for the first three). We are told that, to prepare future graduates for work, universities must align their teaching and processes with technological advancements. Education-4.0 both mined the affordances of smart digital technologies and artificial intelligence (AI) and positioned technology itself as the curriculum for learning for an unknown future and the internet as the medium of this curriculum with educators as resource guides and curators of resources. The positioning of the learner as connection maker fostering the skill of adaptive thinking speaks to two of my key themes: (i) as social beings, a constructivist community-based pedagogy remains central; and (ii) thinking that is adaptive is one that necessarily engages with emergence as in the act of pivoting when a crisis like COVID-19 prohibits a planned way of acting or thinking.

On the horizon as one of the top ten work skills for 2020 was a third theme: transdisciplinarity (Diwan, 2017); literacy in and ability to understand concepts across multiple disciplines. Practitioner researchers Hoffmann et al. (2017) use 'transdisciplinarity' to refer to research that (i) tackles real life problems; (ii) addresses the complexity of these problems by involving a variety of actors from science and practice, and accounting for the diversity of their perspectives; and (iii) creates knowledge that is solution-oriented, socially robust, and transferable to both scientific and societal practice. Interestingly, this is what Barnett (2017) had landed on in his paper on 'Planes, possibilities, poetry': poetry can be a legitimate method in an emergent methodology and the world needs poetry power, as Amanda Gorman demonstrated at the 2021 US presidential inauguration. Further, in professional doctorates, Mann and Bull (2020) suggest, individual learners benefit from "a process of negotiating this form as the best vehicle for their claim of 'doctorateness'" (p. 120). There is no one way: diversity strengthens any ecosystem. Indeed, research can be powered by multiple forms and there are many more ways to get there in an era where emergent methodologies are more intuitively appropriate (Hesse-Biber & Leavy, 2008) than ones set in concrete for probation panels and audited *ad nauseum* with negative pedagogical value. Hesse-Biber and Leavy (2008) had argued:

Emergent research methods have sprung forth as a result of where we have been, where we are, and where we envision ourselves going in the future Therefore, as the social world and our understanding of it have progressed, so too has our repertoire of social research methods. (p. I)

This comment clicks with those of us who have experienced the early 2020s, and sets up the stories that follow as episodes of emergence.

We return to technology and its double-edged sword. An explosion of interest from Big Tech seemed epitomised by Bill Gates, who championed innovation and wrote "we cannot return to the business as usual or stop the virus" while the neoliberal and populist leaders around the world tried vainly to do just that. Technology companies positioned themselves as rescuers and problem-solvers, positioning opportunism as philanthropy, while in fact in November 2020, Apple settled an iPhone 'throttling' class action by throwing \$113 million at

those whose technology had been deliberately slowed down to enhance built-in obsolescence. We download system updates buying into a narrative of fear and increasing security, never reading small print that tells us how the downloads are in fact booby-trapped.

EdTech (educational technology) vendors eyed up new markets. Any innovation-is-good agenda, like that at the heart of Education 4.0, needs to be considered with deep criticality and EdTech needs to be held to ethical account to be truly sustainable. Meanwhile, remote learning during COVID-19 deepened the gulf between rich and poor, UNICEF reported, leaving 600 million children "left behind" educationally due to remote learning (Chauvin & Faiola, 2020, online). COVID-19 was proving a catalyst for the undoing not only of the outdated ideology of neoliberalism, but also that of globalisation. Tertiary institutions dependent on international student flows proved unsustainable. Rotas and Cahapay (2020) offered an empirical study in the Philippines of the problems learners faced:

... unstable internet connectivity; inadequate learning resources; electric power interruptions; vague learning contents; overloaded lesson activities; limited teacher scaffolds; poor peer communication; conflict with home responsibilities; poor learning environment; financial related problems; physical health compromises; and mental health struggles. (p. 154)

This is not a narrative of the heroism of technology in the face of challenging times but quite the contrary. It is an affirmation of the need for human support, equity, community, pedagogical knowing and being open to multiple solutions.

The challenges are both sustainability, economic and pedagogic, and are related to engagement. These challenges remain beyond 2022, with distance learning necessarily playing a far greater role than class work even if a post-COVID age emerges. Universities have yet to grapple with the implications for international learners, or to respond to any opportunities. Even at a distance, educators can follow five key principles: (i) maximise output; (ii) make feedback immediate and applied; (iii) create opportunities for community engagement; (iv) apply process-based learning to foster productive and problem-solving skills, agency and resilience; and (v) create interactive spaces beyond the screen, linking wherever possible to the 'real world.'

These can be achieved simply by such techniques as these five: (i) exploit discussion boards and forums; (ii) harness the affordances of appropriately secure social media; (iii) build communities of practice via every e-medium; (iv) curate repositories of 'shared repertoire,' both key curricular texts and bodies of student work; and (v) set up rigorous task-based or project-based learning for receptive as well as productive skills – we must not forget the value of critical reading and reflective listening in a curriculum of 'produce, produce,' These are core strategies to build new ways of thinking, doing, being and to impact belonging and becoming.

The core pedagogies were already in existence as Marshall and Kosta (2020) demonstrated. Flipped Learning, providing repertoire and tasks in advance of a synchronous learning event, has four pillars, all affordances of key learning management systems like Blackboard or Canvas and all possible in a Zoom room: (i) a flexible environment to offer fluidity; (ii) a student-centred learning culture; (iii) the intentional curation of content; and (iv) professional educator, informed leader or mentor feedback and facilitation. These align, Garrison (2016) demonstrated, with principles of communities of enquiry: (i) teaching presence by means of sequencing content and scaffolding; (ii) cognitive presence, meaning learning happens due to conscious acts of co-construction and negotiation; and (iii) social presence, meaning individuals can assert their own personalities (within an agreed culture of 'netiquette') and ways of being even as they learn within a community.

When COVID-19 came along, then, we already had the seeds of resilience.

NARRATIVE 3: COVID MADE ME DO IT - FOUR STORIES OF DOCTORAL LEARNERS

A note on methodology

Methodologically, this research is located in the interpretative paradigm and naturalistic in orientation. It is written as a phenomenological qualitative descriptive analysis and as such understands the social positioning of the researcher/narrator in the study and allows his implicitness in the processes of synthesising, analysing, and narrating to be part of the data (Sandelowski, 2000). It also allows the lived experience of others to permeate the membrane of the narrative, as in this section, where four WBL doctoral learner narratives are re-presented. These voices are re-presented under pseudonyms with the learners' (and ethical) permission. Although it is broadly an autoethnography of my own experiences with doctoral learners in both Australia and Aotearoa New Zealand and makes a contribution to the culture of WBL postgraduate study, it also strives to understand the participants and their situations and social learning through their own words and perspectives with a phenomenological lens.

It is, as mentioned, a fragment of a larger study, so it is inappropriate to use a thematic analysis. It affords the application of Bruner's (1986) distinctions between *life as lived* (what happened), *life as experienced* (affective issues of feeling, responsiveness, emotion, desire), and *life as told* (how I present the narrative). The writing deliberately strays from academic voice at times in order to express authenticity. For this reason, this paper is presented as a sequence of sub-narratives within a master narrative highlighting throughout the themes of community, sustainability, transdisciplinarity and emergence as the author's own key learnings as a mentor of work-based learning learners in the age of COVID-19.

Appropriately for a contribution to WBL, the contexts used as references in this study are not just academic in orientation; blogs, an increasingly important and authentic site of sharing knowledge among practitioners, are consulted too.

Narratives of doctoral learners

Among the transdisciplinary-oriented WBL projects of learners with whom knowing is co-constructed are topics such as these:

- Reducing recidivism among indigenous groups;
- Enhancing outcomes for Maori online learners;
- Using traditional medicine and wisdom to enable withdrawal from drug addiction;
- Improving cross-cultural outcomes for learners in vocational education;
- Enhancing workplace communication through increased criticality.

Typically, transdisciplinary projects are integrated towards creating sustainable solutions for human welfare and involve collaboration with workplaces, information sharing with real world or professional mentors as well as academic ones. Academic mentors in a COVID age are able to leverage the pedagogical opportunities listed above as affordances of technological media. However, for the learners, particularly those at the data collection stage who intended to use F2F interviews or focus groups as methods, or who planned to collect in-person observational data, there were a number of pivots required as a result of a forced move to digitised data collection.

The challenges included that they still had to operate within the bounds of signed-off Ethics applications or request changes, and that institutions and their policies had to themselves offer resilience rather than impose the letter of the law. A third challenge, and that presents as the core theme in my broader dataset, is the urgent need for information technology (IT) assistance on hand for moments when the behaviour of technology differed

from the training level of the educators; a fourth challenge consists in more flexibility required from research administration and higher education suppliers such as universities. All of this thinking on one's feet serves to emphasise the need for iterative and emergent methodologies in doctoral research, and in-built affordance of transdisciplinarity.

The following four stories are purposively selected narratives of the lived experience of being a WBL doctoral learner during 2020. These are narratives grounded in hermeneutic phenomenology, presented as close to verbatim as possible with identifying details fictionalised. As is often the case in WBL doctorates, the learners are 40 years plus and grounded by a key asset of life experience.

Jane's story (learner in Australia)

I'm now analysing my second case [in a case study approach], much slower than the intended time but what to expect when I returned to Australia during bushfire time in January and I had to take my children to Sydney for two weeks to escape the smoke. Then the hailstorm that cost my husband his job since the university house he was working at was damaged 60 per cent. Then we had the lockdown in March when children studied online and I couldn't come to my office until June and the project was postponed. During that lockdown time, I witnessed my friends struggling to change their research design since face-to-face data collection was no longer available. They had to change their ethics and collect data online instead. I shared with them my experiences with photo elicitation and how the photos could enable them to get better information.

The biggest impact to my journey is the uncertainty of what would come next when the prime minister said international students should come home when our country had closed the border. Our mental, physical and financial wellbeing were tested during this time. It impacted my supervisors too, one couldn't go back to the UK and the other couldn't go to Thailand and worst of all, they were disappointed with the university policies that they no longer want to work for it.

It was not until last week when I began with the second case that I discovered that even though we all conceptualise "Life is a journey" but for Vietnamese people, it's a journey in the water not on land. We were born from water and return to water when we die not from dust. So our journey will go with the flow, we can't just stop because the water will carry us away anyway.

Alan's story (New Zealand learner)

Face-to-face interviews were originally planned as a method to facilitate qualitative data capture. However, the advent of lockdowns during COVID-19 disrupted this approach. Instead, online video interviews were undertaken. In assessing this change in approach, consideration was given to whether research participants would act differently in the absence of a formal physical face-to-face environment. Lived experience sharing and the ability to get people to relax and open up was anticipated to benefit from face-to-face and be disadvantaged from an online approach. In reality the opposite occurred. Participants were generally interviewed in their home environment providing the researcher with an insight into normal family life.

Rather than detract from the interview, the informal home environment appeared to positively impact on quality and depth of the lived experience that participants shared. A total of 19 interviews were undertaken, capturing 22 hours of data. On reflection, the impact of formal versus informal settings, and the ability to engage with interviewees is also a key consideration for developing an understanding of group performance in [my own] codesign format.

Maria's story (New Zealand learner)

I had everything planned. Although I anticipated a lot of work, I believed the project was going to be straight forward and it was just a matter of getting on with it. The reality of Coronavirus 2020 was that:

- Few responded to my survey. I received automated responses which stated "So-and-so is no longer with this
 organisation. Please email info@_____."
- The lack of responses also meant that there were not enough volunteers for even one focus group.
- A social lockdown meant that I was in the house with my partner working from home.

I remembered a conversation I had had many years ago with a friend who did social research for governmental agencies. She had mentioned a snowball technique for data gathering. Although I wasn't in research at the time, her description of the snowball technique made sense because of my childhood experiences in a snowy climate. This memory sent me back to the books to see whether the technique was appropriate for my project.

I eventually found my way through the data collection period by embracing criticality and resilience. Criticality led me to investigate methods and techniques in more depth. I feel that I learned more through this than I would have learned through the original project plan.

My experience and memories helped me be resilient in the face of all the pivots required. I remembered being in danger on thin ice, too far away for anyone to help if I fell through. Even as a child I knew I needed to control my thoughts, not panic, and concentrate on what I knew would take me back to safety. This meant focusing on my next step, and then the next, and then the next, until I could skate back to the group.

This memory helped me during the data collection period to focus on the next possible task at hand. Each small task accomplished brought me closer to my goal of completing the project. Even if this task was recognising that another pivot was required. Therefore, each small task completed was a reason to have a small celebration in my heart because I was inching ever closer to my goal.

I feel that the trials during the data collection were the best thing that could have happened to me. I am now more confident about what I know and why I know it. I entitle my story "COVID made me do it."

Đuc's story (learner in Australia)

The COVID-19 pandemic had a big impact on my psychology and the closure of the campuses due to the pandemic had a negative influence on my education. During these days we didn't even dare to see a doctor every time we had a health problem.

Those were the days in March 2020 when numbers of infected people in Australia was increasing rapidly every day. This was also a time when I was under a lot of pressure because I had background illnesses and I also had to take care of my two children, while we suffered with unstable financial conditions. At that time, I did not know what to do but to buy some necessary medicine and eat only rice like my Vietnamese ancestors in past crises.

Ten days before the end of March was the time when the Australian prime minister announced the border closure, and this was also the time when Vietnamese in Europe massively returned to their home country before closing the borders. This means that my two children and I did see a chance to return to Vietnam.

Although the COVID pandemic was in such an emergency, I still went to work on campus. At that time, I still felt safe working there, because the school had switched most of the F2F classes to online learning, so it was quieter than usual. This experience did not take long as by March 28, it was one of the darkest days of Australia with 469 new cases. It was also the day when it looked like Australia was losing control of the pandemic and may fall into the same situation as European countries at the time. Also, on these days I had been repeatedly informed that the school would close soon.

Then the undesirable things came. On April 2, the school announced the closure of all campuses. So, my worries had peaked because my family shared a house with another family which was not large enough, so we did not have a place to work and study. Our homesickness was huge. Because there was such a terrible outbreak here and that we were in difficult financial conditions, we were unable to rent private accommodation to study and work from home. So many days passed, then in July the epidemic broke out again in Victoria with the number of new infections nearly 800 cases per day. I will not make my December submission deadline and the school has shown little support for students in such conditions as mine.

DISCUSSION

While the two international learners reported anguish, much of it was related to *Weltschmertz* (reflected pain of the world) and geographical powerlessness, especially in Đuc's Story. The psychological pain mentioned in Rotas and Cahapay's study (2020) is raw and exacerbated by additional crises of health and disaster. We also see a resilience there, as if survival is a genetically and ancestrally ascribed response to uncertainty. Distance from mentors, also disadvantaged by geography, complicated the pedagogical dynamic. The loss of designated study space hit hard, since spaces for writing were associated with being away from home. Also present is a sense that tertiary education in Australia failed to support its international students, and we know from other studies that they were engaging in redundancy regimes just to keep afloat without yet resorting to Minnesota's ban (Andrew, 2020a). Jane's supervisor took redundancy, tired of the university's adherence to unsustainable neoliberal thought and unable themselves to pivot in the ways that supercomplexity had suggested.

While universities' managing for an unknown future failed, learning for one enabled some limited resilience. Jane describes the pivots required by peers, marooned in the data collection stage. An aspect of an emergent methodology – photo elicitation – grounded Jane and allowed her to share her experience with peers. The value of peers, family and the communities and networks to which we belong strongly points to the need for pedagogical being that validates a community of practice approach (Andrew, 2020b).

The two New Zealand stories both describe the value of pivoting. Alan found stepping out of the comfort zone of F2F interviews into the space of Zoom proved an unexpected boon. People actually had time to talk now, and the quality of the thick text data exceeded expectations. Once again, the groundwork for understanding the positive affordances of e-interviews (via Skype) had already been done (Mirick & Wladkowski, 2019):

Using Skype for qualitative interviewing offers significant benefits for both researchers and participants ... Skype offers the potential to address some of the challenges of qualitative interviewing by allowing flexibility in terms of time and space of interview, while maintaining the participant's privacy and allowing them to be interviewed in a location in which they are most comfortable. (p. 3069)

Maria's story speaks to at least five of the six domains in resilience theory (Rossouw, 2020): vision (purpose, goals and congruence); composure (staying in control); reasoning (problem-solving and resourcefulness); health (nutrition, sleep, exercise); tenacity (persistence, realistic optimism, bounce back), and collaboration (support networks, social context, managing expectations). Locked down at the crucial point where data collection was due to start, Maria found her original target group, quality specialists in higher education, suddenly either redundant or disillusioned or both. Resourcefully, she considered her networks and applied her enquiry to comparable domains, effectively creating a multiple case study where previously she had wanted to analyse thick data using grounded theory. A chance reflection brought her to snowballing as a sampling method. She validates criticality and resilience as keys to her survival.

Although Maria does not specifically mention it, we are reminded, too, of the flexibility and agility built into action research with its iterative nature. Having no pre-determined variables, it affords an evolving design which

in turn expands the scope, leading to deepened insights. All learners embarking on doctorates in the 2020s will require methodologies with a degree to emergence and the capacity to pivot.

As with the international learners, she found courage in memories and experience, and reflecting on critical incidents from the past helped point the way forward. This, of course, points to the positive affordances of both emergent methodologies and transdisciplinarity. Emergent methodologies are born of turbulent environments – social, political, economic and technological – and inspire epistemological and methodological innovation because the research gap itself keeps shifting (Hesse-Biber & Leavy, 2008). The scientific process becomes one of continual renegotiation, and this is entirely like the nature of the real world and the workplace. Engaging with the emergent tallies with what we know about our grappling with supercomplexity (Barnett, 2017; Krause, 2017). We see, too, as McPhee et al. (2018, online) maintained: "transdisciplinarity is increasingly relevant to innovators ... whose technologies or solutions are aimed at addressing complex societal problems." A saying attributed to Albert Einstein appropriately rounds off this section: Learn from yesterday, live for today, hope for tomorrow.

NARRATIVE 4: CONCLUDING THOUGHTS

This paper has journeyed through four narratives with multiple micro-narratives embedded in my own curated master autoethnography, itself embodying the principles of transdisciplinarity, emergence and community, and suggests that research, both postgraduate and professional, may well benefit in terms of sustainability in the light of these concepts. All of this needs to be understood critically in the context of my – and our – reflective trajectories through learning via technology up to and in the 2020s. This is because, I have argued, behind the bells and whistles of technology lie essential humanistic pedagogical principles such as maximising creativity, and emphasising belonging and becoming. Leveraging the possibilities of flipped learning is also key. There are thoughts that emerge from my experience of mentoring and educating online in a time of crisis. Some of these are related to emergent trends, and others to the capacity of humanity.

As to the former, it is clear COVID-19 is the first of the postmodern pandemics and has galvanised the effective use of many digital learning platforms and tools, but also brought opportunistic players into the market. At no time in our lifetimes has critical thinking and understanding ever been so essential. The Education 4.0 movement predated COVID-19, but the pandemic accelerated it because it already described the teaching and learning conditions of an imagined future. We can harness the affordances of technological pedagogical innovations critically and with ethics and sustainability as selection principles.

As to the latter, the lost social and human dimensions of research remain the major casualty of research in the COVID age, but community of enquiry/practice approaches help mitigate the loss. Researchers are producing more papers than ever but those which fail to incorporate 'pivots,' embed resilience or recognize the fundamental impacts of COVID-19 in the methods are instantly outdated or flash-in-the-pan easy-sell outputs to satisfy unsustainable and outdated audit culture.

The idea that research can be pre-planned and fixed in time and space is out of time. More iterative and emergent methodologies are the future and, in fact, are now. Along with the rise of cutting-edge, hybrid, emergent methodologies, research in WBL domains increasingly necessarily occupies as a space where transdisciplinarity meets sustainability. Methodological diversity addresses wicked COVID-age human-centred problems and more viably assures the future of educational research. Transdisciplinarity is a paradigm that embeds the hope of education and enterprise working together for mutually better outcomes.

This study has been part of an ongoing story of hope.

Martin Andrew operates as a creative mentor in postgraduate programmes, including Master and Doctorate degrees in Professional Practice. Prior to his four to five years supporting the College of Work Based Learning in Otago, New Zealand, he had sojourned away from his hometown of Otepoti/Dunedin with two honorary posts at Melbourne universities in Creative Industries and Transnational Education (TNE). His work and research have become increasingly focussed on doctorate education and supporting learners to reach their own personal best through critically reflective practice and writing. A transdisciplinarian, he emphasises that his past disciplines have included Education, Drama, Linguistics and Writing, Creative and otherwise. He holds honorary positions in Australia, Vietnam and Indonesia.

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