

## **Curation and collaboration as activism: emerging critical practices of #FemEdTech**

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# **Curation and collaboration as activism: emerging critical practices of #FemEdTech**

The inequities rooted in our education systems and wider societies have been thrown into relief by responses to the COVID-19 pandemic. This paper presents four situational studies of the FemEdTech network, asking how we characterise activities of the network, what they tell us about the nature of diffuse, convivial networks, and what opportunities they provide for challenging inequities in the field of technology and/in education.

The study draws on practices and materials produced through FemEdTech activities from 2017 to 2020. Data and its analysis are presented as a spiral of ‘turns’ which fold back on each other to create connections between lines of research, moving fluidly between the objective and subjective.

The four studies present shared curation, collaborative writing and purposeful reflection as contested fields of action. On one hand they build solidarity and shared resources – ‘holding up’ the flow of knowledge in networks, potentially redistributing the capital of attention and connectivity. At the same time, they underscore the costs of shared work which are different in open networks from those that operate in the reified, accelerated production cycles of academic roles – yet connected with them, not least because they always involve investments of care.

Keywords: Feminism, collaboration, pedagogy, network, activism

## **Introduction**

In this paper we explore how knowledge is produced, reproduced, shared and enacted in a network of networks, seeing knowledge as inherently political, and offering feminist critiques of dominant knowledges in/of education and technology. We present four linked sociotechnical studies of the practices of the FemEdTech network. Through them we identify lessons for educators, researchers and activists inspired to challenge inequities in the increasingly inter-woven spaces of digital platforms and learning

organisations. We also identify some challenges to these aspirations.

FemEdTech characterises itself as “a reflexive, emergent network of people learning, practising and researching in educational technology” (FemEdTech 2019b) who share a commitment to challenging inequalities, especially (but not only) arising from gender. Its resources are defined in terms of affective labour – “our passion, kindness, knowledge, enthusiasm and volunteer time” – but in practice include material resources produced through this labour: the @FemEdTech Twitter account and #FemEdTech hashtag, and the Writings (<http://femedtech.net>) web site, hosted by Reclaim Hosting. Other posts, projects and practices spiral out from and are linked back to these hubs.

As insider researchers (Dwyer and Buckle 2009), the authors have curated, observed and reflected on the FemEdTech network, contributing to its processes and artefacts. Material for this paper is drawn from records of the genesis of shared curation in April/May 2018, @FemEdTech account tweets spanning August 2018 to March 2019, shared writings posted between March 2019 and May 2020, and a ‘Thinking Environment’ session (Kline 2020) in January 2021. Three of the studies began before the COVID-19 pandemic and the last provided a point of collective reflection during the lockdown of 2021. At the time of writing, this material can only be seen through the prism of the pandemic and the global educational response to it, including the ‘pivot’ to digital platforms for learning, the relocation of teaching/learning and academic work to private homes, the additional burdens of care shouldered, especially by women, in those private homes, and the rapid decline in women’s contributions to research during the same period (Squazzoni et al. 2020). These issues have thrown into sharp relief the inequities rooted in our education systems (Czerniewicz et al. 2020; Braidotti 2020) and reflected in our practices and networks.

In presenting the activities of FemEdTech we are mindful that the network did not develop coherently. An early website was abandoned, though it may still be glimpsed in the Wayback Machine (Bell 2017), and the practices of shared curation and collaborative writing emerged over time. Early manifestations of the network were not able to bear the considerable work of managing users and moderating comments. A slower approach was needed (Ulmer 2017) in order to accommodate the ebbs and flows of energy and care in a loosely formed, convivial network.

## **Methodology**

This paper rests on the epistemological insights of feminists (Belenky et al. 1997; Hunter 1999; Narayan 2004; Braidotti 2019b) who question the possibility of objective, disembodied knowledge, especially in the fields of science and technology. These feminists argue that the experiences of women and other disempowered groups have been systematically excluded from scientific study. This issue is particularly acute in pedagogical research with, for example, the question of how different learners experience being monitored online, based on their previous experiences of harassment, invasions of privacy, hostile surveillance etc, has not featured in recent studies of online proctoring. Donna Haraway drew attention to the “gaze from nowhere” (1988, 581), familiar from ‘objective’ science writing, while Alison Adam (2000) made the then radical observation that AI ‘deleted’ subjects other than the white male norm. Outside the classroom, the problem is becoming widely recognised, with surveillance technologies acknowledged to misidentify Black, female faces (Simonite 2019; Buolamwini and Gebru 2018). However, similar technologies are increasingly used in the classroom (Williamson, MacGilchrist, and Potter 2021) and there is work to be done on understanding the lived experiences of disempowered groups in this context.

Belenky's (1997) qualitative research with women in different educational settings led her to identify an alternative, feminist form of scholarly practice, in which multiple standpoints and methods can be in dialogue. We draw on this feminist epistemology when we ground our analyses in our different viewpoints, contributions and conflicts, recognising that some people are accorded 'epistemic authority' when they write and speak, while others struggle to achieve it – especially through the norms of academic writing with their expectations of academic time and productivity, and valorisation of the singular 'objective' voice.

We also draw on feminist pedagogies (e.g. Omolade 1987; hooks 2014; Kirkup et al. 2010) to examine the practices of curation and collaborative writing, as a first step in translating these back into the classroom as resources for critical learning.

Feminist relational ethics (Gilligan 1977; Noddings 2003; Birhane 2021) encourage us to be aware of our privileges in having the resources to participate in FemEdTech and to bring this paper together. Deleuze and Guattari's rhizome theory (1988) and Barad's (2007) insistence that agency is relational – emerging from participation – have inspired us to enact authorship through mutual care and natural (plant-like) growing-on of material through textual revisions and conversations alongside the emerging text.

Finally, Bourdieu asserts that research is composed of two 'minutes', the first describing the relationships and structures of the field, the second a subjective analysis of participants' understanding and motivations ('dispositions to act') from the perspective of their own habitus (1989). When researchers are also activists, as we are, the subjective moment of reflection is not neutral, but oriented towards new intentional actions, which in turn create reverberations in the network's relations and structures, and adjustments in participants' dispositions and perspectives. Building on this

dynamic, our paper offers four short situational studies in the development of the FemEdTech network from both objective and subjective perspectives. We call these ‘turns’ to reflect both our ‘turn-taking’ and the spiral-wise exposition of feminist theory and practice through our different voices and themes, represented as a sketchnote in Figure 1.

The first turn outlines the genesis of shared curation and presents curation as a site of creativity and activism. The second turn takes a more traditional thematic analysis of @FemEdTech tweets, surfacing the underlying feminist practices. The third turn identifies collaborative writing (or making) ‘alongside’ as a powerful tool for challenging authority from a feminist perspective, in pedagogy as in research. The fourth and final turn maps themes from a Thinking Environment session, threading together previous themes and demonstrating the impact of sustained attention to the other. We offer these four turns as a patchwork of praxis, stitched together with the multiple threads of feminist theory.

[Figure 1 near here]

### ***Making-visible knowledge-power in a network of networks***

The FemEdTech network could be said to originate not so much in a founding event (real though this was) as in the attempt to write away from that event by some of its participants. The event itself – a small meeting in the UK in 2016 – brought together in real-world space and time a group of women who were already connected through virtual networks. It both assumed and strengthened a sense of solidarity, based on a shared understanding of the gendered nature of experience in the academy and in relation to digital technologies. It provided for acts of mutual care, such as cooking and eating together. At the same time, it generated a profound unease regarding the many

women whose bodies were not in the room. This double movement of affirming solidarity and questioning its grounds has been a painful feature of recent feminism.

It is also a feature of any network that involves virtual and real-world entanglements. Access to physical spaces where common ground can be negotiated is costly, involving travel grants for conferences, and access to concrete institutions. Power accumulates there, though differently through the bodies of people identified as women, as people of colour, as differently gendered or abled. These differences in embodied capital – including the capital of being-present – are enacted in virtual spaces too.

A founding problem was and remains this: how to nurture a network of people, committed to questioning these forms of embodied capital, committed to activism around the work of technology-in-education – understood as marked by gender and by other power/privilege dynamics – from a position of relative embodied privilege. How could a group of mostly white, English-speaking women, mostly with desk space in concrete institutions of higher education, grow a network – mobilising resources, building connections, nurturing solidarity – that would not reinforce the effects of these intersecting privileges?

A spell of backward or inward movement followed: critical self-reflection, false starts, a discussion over the implications of using ‘feminist’ rather than ‘woman’ as an anchoring term. Then a tentative expansion into a new identity: ‘feminists in ed tech’, described in shared writing of that time as ‘having the advantage of aligning us with ideas and values rather than biology’.

Values development was an inherent part of these exchanges. It became public whenever the development spiral turned towards a new practical activity or event, emerging for example in a code of conduct for the writing space (FemEdTech 2019a),

and an explicit values development activity (FemEdTech 2019d). The values of intersectionality and openness were affirmed as content in these materials, but also followed as process, leading to the repurposing of existing value statements such as the feminist principles of the internet (Association of Progressive Communications 2016), the Data Feminist values (D'Ignazio and Klein 2018), and GenderIT.org's principles for feminist communication (Just Associates 2015). Values statements do not end but begin the hard work of addressing power and privilege. Values development continues in the writings, postings and networking practices of everyone who uses the #FemEdTech hashtag and writing spaces. However, in order to bring the hashtag and writing spaces into being, some values have had to be codified, for example in names, platform choices, and guidance for contributors (FemEdTech 2019a).

As we explore some of the resources and practices developed in these spaces – shared curation, collaborative writing, and shared reflection – we are mindful not to idealise the de-centred network as a space for uncoupling power and privilege. We are convinced by the conclusions of recent scholars (Stewart 2015; Funes and Mackness 2018) that relations of power are embedded even in highly convivial, unstructured networks through differential access to resources of knowledge, time, reputation, mobility and influence. However, we notice that networked participation does allow a step aside from the accelerated time of research and teaching in the academy, with their fixed deadlines and instrumental focus on outputs and metrics. By engaging with the materials of networked practice in waves and pauses, we are modelling a 'slow ontology' and "writing that is *not unproductive*, but *differently productive*" (Ulmer 2017, 201). We therefore offer this and other new possibilities for feminist pedagogies and emancipatory research (Henry, Oliver, and Winters 2019).



The materials we explore here are drawn from the publicly available FemEdTech open space with tweets from the @FemEdTech account and using the hashtag #FemEdTech. We sought permission from individuals to quote tweets where they are identifiable, giving full attribution (Twitter handle and full name). The authors gave their informed consent to the recording, transcription and analysis of the Thinking Environment session material, working collaboratively on all parts, thereby aligning to Lapadat's (2017) call for ethical multivocal autoethnography through 'collective agency'. This paper inevitably fixes – for the formal processes of publication and peer review – what we invite readers to encounter 'in the wild' in all its multiplicity, irregularity and emergence.

### **Turn 1: The genesis of shared curation**

The network began its social media presence as a hashtag in 2016:

Frances Bell (@francesbell): Grace Hopper was born 110 years ago today  
[https://en.wikipedia.org/wiki/Grace\\_Hopper](https://en.wikipedia.org/wiki/Grace_Hopper) #femedtech (Dec 9, 2:40 PM, 2016.  
Tweet)

As well as positioning the hashtag in relation to a long history of women in technology, it identified with Wikipedia as an ongoing, open project in knowledge-building.

A social media hashtag such as #FemEdTech provides an open point of contact for multiple networks and voices. It is a de-centred, contingent, spontaneous focus of attention. Nevertheless, in the attention economy of social media, a hashtag and its underlying concerns survive only through consensus and shared labour. A desire to find this consensus and acknowledge this labour led to the conception of @FemEdTech as a named account: a way of sustaining longer-term attention to the feminist, the technology-related, the educational, and their intersections. Inspired by the approach of

@IndigenousX (Sweet, Pearson, and Dudgeon 2013), curation of the @FemEdTech Twitter account has since April 2018 been shared by volunteers who take up residence for a short period of time (usually two weeks) that they can manage among their other commitments. This allows diverse online subjects to be subsumed temporarily within the collective project, amplifying traffic through the #FemEdTech hashtag, and at the same time using the growing network to draw attention to linked activities and concerns.

As feminist educators and activists, we consider the role of curation as exemplifying shared, collaborative and distributed labour in the knowledge network, and as realising the potential for mobility within those networks, allowing different witnesses to take up the curatorial role and the role of curation itself to shift perspectives towards marginal positions.

There is no doubt that curation enacts authority within – and over the disparate matter of – a dispersed network, raising the issue of ‘from where’ disparate matter is catalogued and positioned. The opening two posts from the new @FemEdTech account appeared on International Women’s Day in 2017 and were designed to reach out to potential collaborators from a diffuse (but welcoming) central space:

FemEdTech (@FemEdTech): All I'm saying for now is - watch this space #femedtech on #IWD2017 #IWD :) Softly, softly - launching femedte.ch on #iwd #iwd2017 and looking for contributions #femedtech thanks to @cogdog (Alan Levine) for camp fire image (Mar 7, 10:40 PM , 2017. Tweet)

#FemEdTech curation involves recognition of work already done (and repurposed) but with the promise of new perspectives, conditional on others moving in from the margins. The act of moving in from the margins is configured here as one of sharing the warmth, rather than of taking up authority. The sharing of the curatorial role also allows authority to be dissipated, and reputational benefits and risks to be redistributed.

In the world of the arts and visual culture, curation is widely recognised as a form of activism, including specifically feminist activism (Reilly and Lippard 2018; González Rueda 2019; Deepwell 2020). Noting that ‘curation’ and ‘care’ share a root in European languages, Reilly and Lippard (2018) draw on Spivak’s approach of ‘strategic essentialism’ to curate art exhibitions that make diverse artists visible under a single banner, recognising that the alliance is provisional and contingent. The work of the curator is a creative contribution in its own right, introducing a particular lens on diversity, but one that can actively choose to focus on marginal voices and perspectives. Of course, it matters that curators should also reflect diversity and that marginal perspectives should not simply be ‘gathered’. Curation should also become the place from which other intersectional projects can start.

In the context of student work, Bhatt (2017) understands curation as a form of controversy: a way of working with (but against) existing materials of knowledge. He also deals with the labour and learning that is involved in curation – problematising, aggregating, editorialising, adding value, creating new narratives. Most interesting to this discussion is his idea of curation as ‘irruption’ – a new practice created when one activity interrupts or creates a ‘rupture’ in the other. In this case, active curation is interrupting the organic flow of messages in a network, demanding attention to some, side-lining others, and creating new points of contact and connection. There is the opportunity to provoke, examine and make explicit some of the relations of power that would otherwise flow on unremarked. We propose that as a creative space for redirecting attention to issues of equity, curation can be a form of critical pedagogy (Mihailidis 2015) as well as a tool for activism.

## **Turn 2: Curation in action**

As part of a study into the practices of stewarding the account, approximately 1300

tweets from 14<sup>th</sup> August 2018 to 7<sup>th</sup> March 2019 were coded for intentional praxis, asking of each: ‘What is this tweet doing?’

One curatorial practice with an ethics of care was the promotion of work by women relating to education or technology or feminism. As a form of activism, these tweets aimed to redress the injustice of work by women being more likely to be ignored or devalued (Ahmed 2017). Amplifying through linking to women’s presentations, blogs, research activities and publications, they also celebrated women’s successes in tweets about being offered a job, a promotion, completing a qualification, passing a viva, getting published and other forms of academic and non-academic recognition. This practice spread to other networks, such as in response to an #LTHEChat question, ‘How can we ensure practice and evidence is shared across disciplines?’:

Rachelle O’Brien MSc #SFHEA (@rachelleeobrien): [...] #femedtech did a wonderful thing by encouraging people to shout out the achievements of others - that was huge for me and so appreciated (Nov 28, 8:44 PM, 2018. Tweet)

Standing in solidarity with activists and their campaigns for social justice and equality, @FemEdTech curators could leverage its modest platform to direct attention, amplifying other social media campaigns such as #SayHerName, #MeToo, #ATDFourthWorld, #WorldDayToEradicatePoverty, #dementia, #WomenInTech and #WomenOnWalls.

Reflecting perhaps a consciousness of lack of diversity within the network, curators restated the openness of the network, regularly extending open invitations to curate. Growing the ‘network of networks’, @FemEdTech curators sent links out into other networks through retweets and mentions and this remained a constant aspiration:

FemEdTech (@FemEdTech): RT Frances Bell (@francesbell): My hope for #femedtech is not that we will be the same but a place for listening, especially to

other feminists, but also to anyone bearing inequity (sic). I am encouraged that #/@femedtech is growing to be more inclusive by sharing curation and networking with other other networks (Dec 7, 4:34 PM, 2018. Tweet)

Connecting to other networks was, for the most part, dependent on the networks each curator brought with them:

FemEdTech (@FemEdTech): I see the retweeting as having a low-level connecting and boosting function. And by sharing those duties between different curators, all of their networks become more connected. (Nov 23, 1:05 AM, 2018. Tweet)

The network's reach was infiltrating and sprouting new networks, growing practices into other feminist spaces of co-production such as the Women's Leadership Network and the equitable and creative #JoyFE movement.

Making transparent the mechanics of @FemEdTech curation involved purposefully sharing how it worked, making it accessible and replicable to followers and potential curators, sharing how their own voice emerged such as when Clare Thomson reflected on her experience on her blog (2018):

FemEdTech (@FemEdTech): My thoughts on #femedtech curation as I hand over to @catspyjamasnz <https://wp.me/p9q3h5-ls> cc @francesbell (Nov 16, 11:11 PM, 2018. Tweet)

Welcoming and inclusive practices, later codified in the FemEdTech values, were evident in prosocial tweets that thanked and welcomed new followers.

With the demise of the first FemEdTech website, and the second, FemEdTech.net (<https://femedtech.net/>), not yet launched, various ad hoc methods were used to gather resources. A #FemEdTech discussion thread on influential publications within the feminist-education-technology space grew into an online 'FemEdTech Reading List' (FemEdTech 2019c). A less formal approach was a #FemEdTech

#bookclub where followers tweeted images of books they were reading, echoing the materiality of FemEdTech practices elsewhere. Later this grew into a more structured resource in the form of a working bookshelf (on the open source reference management software Zotero), openly shared for teaching and scholarship. While the concept of a FemEdTech ‘canon’ is problematic in our theoretically plural and decentred network, the choice of platform offers access to those working outwith academic institutions, normally disadvantaged by publication paywalls. Each of these initiatives arose organically from the impulses of different curators.

As has been shown here, curation is an act of relational agency, redistributing care, attention and resources. Acknowledging their privileged access to resources such as knowledge, time and network influence, curators were also honest about their uncertainty of taking on the role as they worked to move in from the margins, stepping in to cheer each other on as the baton was passed between curators. The sustained attention of the hashtag and the account continued to cause irruptions and lines of flight into other spaces, that is, until the pandemic in early 2020, picked up later in Turn 4.

### **Turn 3: Writing ‘side by side’**

Feminism has a long history of collaborative writing as a form of activism, challenging the normative practices of academic authority (Belenky et al. 1997; hooks 2014; Handforth and Taylor 2016) as well as offering solidarity in the challenges of producing text from marginalised situations (Karach and Roach 1992). More recently, feminists have seized on public, hyper-linked and multimodal forms of writing as opportunities for new collaborative practices (Knox and Bayne 2013; Smith and Selfe 2006). These teacher-writers continue to see collaborative writing, especially with students, as activism: writing to transgress, as much as teaching to transgress, has been at the heart of feminist interventions in the academy.

After the first attempt to host a collaborative web site foundered, the FemEdTech\_Open Space was launched in 2019 with a post entitled ‘Making and shaping the FemEdTech open space by writings’ (Bell 2019). The TRU Writer SPLOT WordPress theme was adopted to support writing without a user account, and to make posting of video and graphics straightforward, allowing for anonymous and visual forms of ‘writing’ to find their place.

The Open Space has 67 contributions at the time of writing, some with internal links. A heat map of categories and timings (FemEdTech 2021) shows that ‘care’ and ‘ethics’, ‘openness’ and ‘privacy’ have been important topics. Two peaks of contribution around the OER19 and OER20 conferences suggest that writing for FemEdTech is linked to participation in more formal academic networks and conferences. Like contributions in a conference track, these writings speak alongside each other and to shared concerns, but they are not intentionally co-constructed.

While these are undoubtedly limitations – without deadlines, editorial meetings or joint responsibilities, a deep engagement with other voices can be postponed – the open space ‘makes and shapes’ a space for collaboration, and this is also done through writing. Hashtags, hosting software and the TruWriter theme – and beyond them, the shared code and protocols of the Internet – provide the technical substrate for these writings. A code of conduct defines the relational space in which they emerge. The role of authorship is revealed as already multiple and diffuse (cf Ross, Bayne, and Lamb 2019: ‘Remixing digital content redefines authorship’).

In reflecting on these writings, we authors of the present paper have also attended to the unwritten: the videos and images that remain unposted; the unrecorded support we lend each other; the half-written blog posts that fill our draft folders as we (often) attend to the needs of more material bodies. During the pandemic, as the number

of submissions from women to academic journals dropped (Kitchener 2020), the demands of the unwritten became especially pressing. In the early months of the pandemic, members of the network produced an Open Letter to Journal Editors (FemEdTech 2020a) asking them to note women's disproportionate roles caring for family and community, and to "support women researchers and scholars during this time". While others noted this later in 2020 and 2021, the lived experience of the FemEdTech network curators and their "listening" across this and other networks, prompted swift and public action.

At the same time another project was taking shape that would re-materialise the values of the network while embodied encounters were impossible. The FemEdTech Quilt of Care and Justice in Open Education (FemEdTech 2020b), unveiled online at OER20 (Bell et al. 2020) exists as both a material artefact and a digital text. Both are curated artefacts, stitched and written side-by-side, with the seams showing as stitches and as clickable links. Alongside many hours of careful labour, the quilt recruited sewing machines on several continents, technologies of writing and database-production, digital networks, hyperlinked digital images and text, and the international mail. Meanwhile the textile squares and textual stories refer to one another in a variety of ways, both narrative and spatial. The quilt can be seen variously as the rematerialisation of virtual connections, as a geography of the FemEdTech network, as a rebuke to the conventional authorship of the blog post or conference presentation, and as a desire to write fully with and not merely alongside other feminists.

In this turn we recognise that a commitment to shared writing – particularly in non-authorised spaces (Costa 2015) – can hinder progress in the academy (West et al. 2013; Jarrett 2014; Cirucci 2018). Collaboration, in pedagogy as in research, is seen as virtuous: a gold star on top of the real work of personal endeavour. In fact a



commitment to reading, hearing, supporting, engaging and responding to others' work takes time and energy that cannot be spent elsewhere. This is the “paradox of collaboration” in the neoliberal university, where “individual and collective goals can come into conflict through the measurement of academic performance” (Macfarlane 2017, 472). Networks like #FemEdTech may speak out against these disciplining metrics but can only be sustained by the labour of bodies that *might otherwise* be working to accumulate credit within their logics. Thus collaboration is both an ethical act and a form of critique.

As more and more education takes place through the screen, material pedagogies are also forms of critique. Bayne et al. urge us to “attend to the material” (2020, 25) in digital education. We contend that the intersecting material/digital spaces of writing offer resources to challenge normative intellectual practices and individualised ways of knowing in feminist pedagogy as well as in networked activism.

#### **Turn 4: Thinking together**

As the authors developed this paper during successive periods of Covid-19 lockdown, we decided to meet in a Thinking Environment (Kline 2020) – a set of disciplined processes that support exchanges (live or screen-based) in real-time. Taking turns to attend and speak, taking care to listen without interruption, we came to appreciate that we were practising a slow ontology (Ulmer 2017) in our approach to data collection and analysis. Our “intentional pausing” (Patel 2016, 5) had enabled us to balance our research and thinking with our pandemic responsibilities.

The Thinking Environment was recorded in Zoom and auto-transcribed with later corrections – an apparently faithful mirror that shattered every time the phrase ‘FemEdTech’ was (differently) mis-transcribed. A selection of themes is offered here and represented in a sketchnote in Figure 2.

[Figure 2 near here]

Differences of perspective, whether our theoretical tools or our lived experiences of working through Covid-19, were identified as a source of uneasiness as our collaborative writing evolved. The Thinking Environment allowed those differences to surface without judgement: “Difference is all there is”, writes Kline (2020, 53), and Braidotti, while insisting we are always ‘not-one-and-the-same’ (2020), also draws on Deleuze’s concept of ‘a life’ we all share, and intentional practices of mutual care, as the basis for shared understanding.

As educators, activists and scholars, the tools at the authors’ disposal were theoretical and material, some hard-won, some borne out of privilege. We are deeply enmeshed with these tools, aligning our identities and values to them. The urge to ‘wield them powerfully’ in the cause of equity was a common thread, but also the acknowledgement that being so enmeshed, we have only the illusion of control. Our actions may be led by our values, but they depend on tools we did not design, and have unpredictable consequences including joyful inclusions and unintended exclusions.

The Thinking Environment allowed us to recognise that FemEdTech practices and resources continued to proliferate even while the pandemic forced a pause on shared curation. Dormancy is also a way of gathering energy until it can be used again. The spectres of unwritten texts were summoned and confronted as pressure points of capitalist velocity (Ulmer 2017) while we continued to deal with our embodied lives and cares.

Reflecting on our experiences of this and other open networks, it became clear that FemEdTech practices have occurred mostly in smooth spaces (Deleuze and Guattari 1988), where the flow of ideas is relatively frictionless and unbounded, conflict is low, and practices flow easily, allowing us to share resources. There were

opportunities to resist what we *should* be doing, instead nurturing our communities and ourselves through care and saying, as Braidotti would counsel, “I would prefer not to” (2019a, 21) (meet the demands of the neoliberal institution) at this time. Having the resources of mobility on our side meant that we were able to take unexpected turns, as themes such as those represented in Figure 2.

We are multiple, but we do not claim to be representative. We recognise that FemEdTech does not speak to all experiences, and there have been times when this knowledge has challenged our ability to speak or act at all. There is no leadership in the network and no forward plan, but spirals of energy and activity. We authors have certain resources of time, mobility, material connectivity, and influence – but these are fluid and will change, allowing us to move to the side and for other voices become central.

The Thinking Environment can be seen as providing the kind of open communication envisaged by early enthusiasts of the digital network: it is a relational, non-hierarchical space, in contrast to the transactional spaces of academic discourse that demand writing is translated directly into use value and credit. However, it is not wide open, and its closures allow a gathering of attention not possible in an open network. It is both more structured than the network – allowing for deep dialogue and exchange – and less structured than the university, and as such it can provide a commentary on both network and university as sites of feminist activism.

## **Discussion**

In a critical study of feminist activism and digital networks, Fotopolou argues that, “it is increasingly difficult to organise collective and sustained forms of politics in a culture that is characterised by ephemeral – though abundant – content production and circulation of media texts” (2017, 3). Against the ephemera, she suggests that activists

can build ‘sustained’ networks by attending to five issues: access, connectivity, immediacy, labour, and visibility. These issues correspond closely to the values and practices of FemEdTech.

Salami’s (2020) demand for knowledge practices that are ‘hybrid... stitching worlds together’ is answered in our exploration of shared curation, which has allowed the #FemEdTech hashtag to take root in diverse and overlapping territories online. Intentionally collaborative and inclusive, productive and re-productive, it has enabled individuals to weave their own concerns and passions into the fabric of the network, just as we have done in this paper.

Through a variety of temporarily and partially closed spaces, FemEdTech has also allowed a body of shared writing and artefacts to emerge. Writing and thinking ‘together’, essential to dialogic practice, brings us back to the founding problematic of the network: presence and closure as forms of capital. As Braidotti says, “‘We’ – critical thinkers – perform the stubborn labour of operationalizing critical spaces” (2019b, 19), without imagining we have solved the problem of who ‘we’ are as we write/think/curate, and who is not being included or heard.

Bodies in history only have so much time. For such bodies, writing *alongside* each other, with loose threads ready to snag and tangle asynchronously (a meme here, a shared hashtag there) is less demanding than the deep encounter that unmakes and remakes perspectives. The digital forms of writing that we have chosen and that have chosen us through FemEdTech have given us many ways of being *alongside*. But in writing this paper together we have learned that they do not make real dialogue less necessary or demanding – a committed, empathic encounter with others, that extends beyond marginal comments or instant ‘quote posts’.

We extend that empathy to our students for whom groupwork is a continual requirement (and rightly so) but who are caught up in accelerating economies of knowledge production, in ever-extending surfaces of information, and in reified and individualised forms of accounting for what they know. All this makes real dialogue with others difficult and – especially in these times of social distancing, screen-based encounters and proliferating conspiracies – anxiety provoking too.

As teachers in dialogue with each other, we have glimpsed a pedagogy through which students have equal access to the resources of digital production, and in which shared curation and shared writing produce respect for other points of view, as well as material artefacts that have a public life and are meaningful to students themselves. As long ago as 1987, Barbara Omolade defined her Black feminist pedagogy as a triad of practices: “the clarification of the source and use of power within the classroom, the development of a methodology for teaching writing, and the need for instructors to struggle alongside their students for a better university” (1987, 32). She might not have imagined a ‘writing’ that included all the public, multimodal forms of expression available to educators today, but her solutions resonate with ours, as does her linkage of writing with power, and with the struggle for personal emancipation through and against the demands of academic performance.

Our thinking environment and slow ontologies (Ulmer 2017) have allowed us to interrupt the present day ephemera and velocity of academic capitalism, creating space to reflect on the persistence and endurance of feminist knowledges through history. We have worked with our short history as a network – its waves and pauses, its openings and closures – and also sought links between today’s networked feminisms and the writings of previous generations of feminists on situated thinking and collaborative writing. In person too, ours has been an inter-generational conversation.

Our materials and practices demonstrate a multiplicity of feminist voices in the education and technology space, but also an urgent need for greater diversity and critical challenge, noting that even informal and convivial networks show asymmetries of power through different access to relevant information capital, connection, and mobility (Boltanski and Chiapello 2005). As digital platforms increasingly dominate and define the university, there are new threats to equity and diversity, as well as new opportunities to surface, amplify and connect dissenting and critical voices.

There is also danger in waiting for perfection: fully open networks, peer-to-peer platforms, theoretical concord and sustained and regular activities. FemEdTech is messy, sidesteps the conventions of outcome-dominated time, and as a ‘becoming network’ is by definition incomplete and irregular. As we begin to understand the effects of the pandemic, the pivot to emergency online teaching and learning, and the lasting impacts on our embodied ways of life, we will need new pedagogies too, and they may be just as irregular.

We propose that the practices of curation, collaborative writing, and attentive reflection (such as through a Thinking Environment) offer opportunities for challenging inequities in the fields of technology, education, and technology-in-education, as well as offering the raw materials of an emancipatory pedagogy. We offer our experiences within a feminist network of ebbs and flows as itself a lesson to be learned, counter to the ephemera and velocity of mainstream academic work.

### **Disclosure statement**

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