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Agentic learning: the pedagogical implications of young trans people's online learning strategies

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ABSTRACT

This paper proposes a new conceptualisation of learning in the age of the internet, increasing systemic rigidity of formal education and intensified media manipulation and partiality. Using empirical data and drawing on Social Activity Method it elaborates the different strategies young trans people recruit in their self-learning and contends that these constitute a type of learning where the control of pedagogy, the learning environment and the subject matter lies to a significant extent, with the learner, taking place in spaces free from the influence of hegemonic transphobia. This type of learning appears to constitute an effective but complex one. As, in this instance, the learning is taking place in a wider cultural environment where the subject matter is often suppressed and subject to ideological misrepresentation by hegemonic control of the public sphere, this study suggests that learning by providing learners with greater control over pedagogy and learning environment is effective.

KEYWORDS

Learning; transgender children; agentic learning; trans; transgender; public sphere

'A misinformed people is a subjugated people.'

Gloria Anzaldúa

Introduction

One of the main aims of this study is to characterise how young trans people come to understand themselves *as trans people* through online engagement and to consider the pedagogical implications of this. This paper sets out to construct a description of the ways young trans people engage in independent, collective but autonomous and self-directed learning about what it means for them to be transgender or non-binary. From this it is intended to produce an initial characterisation of a potential new sociocultural theory of learning which I am going to term *Agentic Learning*. The features of Agentic Learning can be summed up as follows: learner control over all aspects of the learning including the pedagogy, learner participation in curriculum design, and an absence of control by hegemonic forces over the learning environment. This kind of learning often appears to occur after individuals experience a personal epiphany as trans or non-binary, and during the subsequent Discursive Deferral period (Kennedy 2020b), a time when young trans and

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non-binary people are able to engage in discussion and learning about their circumstances, but prior to coming out to those outside trans communities.

To understand this phenomenon this paper draws on *Social Activity Method* (SAM), a constructivist method that produces systematic 'deformances' of empirical data in the way McGann and Samuels (2000) advocate in relation to reorganising creative works to reveal new meanings. The main feature of SAM is to make visible meanings that would otherwise not be apparent, in this case, different modes of learning. From initial readings of the data it seemed that a new kind of learning was happening, and consequently SAM was recruited to construct an initial characterisation of this learning, one that may require more detailed subsequent investigation. The SAM characterisation of Agentic Learning (AL) suggests that initially four main pedagogical elements to it can be characterised; *supporting, modelling, informing and responding* which may later require further elaboration. This paper also recruits Habermas (1962) concept of the structural transformation of the public sphere to help understand the context in which this type of learning can function effectively.

Background

As I argued in Kennedy (2020a) the obstructions in the way of trans and non-binary children and young people engaging in self-learning have changed in nature in recent years in relation to hermeneutical epistemic injustice (Medina 2017 p42). In earlier times, particularly prior to widespread internet access becoming available, it was difficult, especially for the young, to come to identify as trans and to engage in self-learning. This is attributed to the passive cultural erasure of trans people; it was either impossible or very difficult to find out about what it meant to be trans or non-binary because of a default, passive exclusion. Internet availability changed this. The situation has changed again in recent years, in particular in the UK, with the advent of a widespread campaign of media transphobia (Baker 2019) linked with the rise of a number of groups that claim 'feminism' or 'women's concerns' as a cover for transphobic campaigning (Phipps 2020).

This change represents a shift from passive, or unintentional, obstruction caused by historically sedimented cultural processes of erasure and epistemic injustice on the one hand to, on the other, deliberate and premeditated attempts to make it harder for trans people to live their lives, obtain support, access healthcare and come out (Turban 2020a; Kennedy 2020a p55). Active delegitimisation through disinformation has been substituted for passive erasure.

The different ways young trans people engage in self-learning is a relatively under-researched topic, but one which may produce significant new insights into learning more generally and its pedagogical import, especially in the era of the internet and social media. This paper therefore attempts to characterise the way young people engage in self-learning in the face of attempts by powerful transphobic groups both inside and outside mainstream UK media to spread ignorance about trans people (Lester 2017). Understanding such self-learning, in the face of active suppression of the knowledge and information these young people need, may ultimately result in gains in terms of understanding how people learn in other contexts, including, for example those finding out about the Black Lives Matter campaign, intersectional feminism and opposing climate change. In all these instances there would appear to be some kind of AL, where people are

educating themselves about that which is either suppressed or misrepresented in the public sphere and is consequently difficult to find out about.

Relevant antecedent literature

Despite an intense campaign by the media, especially in the UK, to present trans children and young people as something ‘new’ and generating a moral panic about this group¹ Gill-Peterson (2018) has evidenced that young trans people and children existed – in the United States at least – for most of the last century; however, until recently most were unable to find out about what it means to identify as trans. In particular Gill-Peterson identifies how the media’s ‘newness’ narrative is incorrect (Duck-Chong 2018). Furthermore, Matzner (2001), Costa and Matzner (2007) and Williams (1986) have shown that young trans and gender diverse children exist in cultures other than European-based ones. The greater prevalence of young trans people and trans children is explained by Beemyn and Rankin (2011) who noted that trans people born before the 1990s were more likely to conceal their gender identities for much longer periods and come out at more advanced ages than those born after this time. Lee (2004) describes how trans women born before the 1990s often did not come out until middle age. Whittle (1998) was one of the first to suggest that the emergence of trans people as an identifiable group may be a consequence of the advent of the internet in the late 1990s. Malatino (2015) examines the pedagogic in greater depth. They look at learning in relation to trans people from an insider perspective in order to make their Women’s/Gender Studies course fully trans/non-binary inclusive. They do this through universalising and genealogical approaches to their teaching. Nicolazzo (2017) also recommends a universalising approach to trans inclusion, and, in contrast to the others above, focusses on the agency trans and non-binary students need to navigate through college. These suggest that much of what little provision for learning about trans people that exists in formal settings is restricted, often problematic and fails to adequately account for trans people’s subjectivities or help young trans and non-binary people with self-learning.

Significantly, Clark and Virani (2021) study of the capacity, rights and authority of young trans people to consent to hormone therapy clearly evidenced that most developed a very good understanding of the medical issues affecting them and had considered them in depth. Although they did not examine the nature of the learning in which their participants engaged, they reported that healthcare providers found that these young people knew precisely what they wanted and were very well-informed about it.

There was evidence youth were seeking and triangulating information from a variety of sources to inform their decision-making, rather than relying on one source. For example, one youth said the hormone therapy related questions she asked the healthcare provider “were the same ones that I’d asked the Internet. I just wanted to double-check them.” Another youth discussed accuracy of various sources and the need to verify information with a healthcare provider when it could not be triangulated online. (No page nos.)

This suggests that the outcomes of their learning were very good indeed and that the interaction with their healthcare provider was necessary only to check what had already been learned on the internet, demonstrating a mature and well-informed understanding of online learning.

However, outside formal education the practice of self-learning online by young trans people is only elaborated by a small number of scholars. Jenzen (2017) described the ways that young trans people engage creatively in different forms of online social media, while Raun (2016) explored how they engaged with YouTube vlogs about transition. Eckstein (2018) also underlined the importance of YouTube videos and their disruption of temporalities. Significantly, a number of recently published autobiographies of young trans people have also included references to engagement in online learning communities (see Kergil 2017; Violet 2018), demonstrating the importance of these spaces.

Analytical framework

In terms of trans people's development through the learning and coming out process, Devor (2004) characterised a fourteen-stage model of development of gender identities for trans people and Pullen Sansfacon (2020) identified three potential gender development trajectories that young trans and non-binary people tend to take. Beemyn and Rankin (2011) propose a 'developmental milestones' schema which suggests different routes taken by different kinds of trans people. While acknowledging complexity this schema relies heavily on a reification of potentially problematic and rigid distinctions between different kinds of trans people. Significantly, however, they acknowledge that the situation may be different for the most recent generations of trans people. Kuper, Adams, and Mustanski (2018) acknowledge that dysphoria can exist in children and young people before they can attach words to it, while Kennedy (2014 p330) points out that young people's self-learning processes can usually only begin in earnest once appropriate vocabulary is acquired. She consequently proposes a two-stage sociological model of 'deferral' that depends on this knowledge acquisition which she describes as 'epiphany' (Kennedy 2020b). Most importantly, Stryker (2006 p13) reminds us how the subjugated knowledges of trans lives and subjectivities need to be regarded as non-uniform across different groups.

It is also important to acknowledge the more-established pedagogical theories relevant to this paper; the relevance of antecedent (social) constructivist theories of Piaget (1977) and Vygotsky (2012[1934]) and the analyses in Freire's *Pedagogy of the Oppressed* (2001 [1968]) to Agentic Learning. In particular from Freire's perspective of the way the curriculum is unresponsive to everyone's needs, his characterisation of the 'banking' mode of teaching can also be regarded as of limited value for the needs of young trans and/or non-binary young people and probably many others also. Alexander's (2008) theories of dialogic learning, are also relevant up to a point in providing a theoretical framework for the characterisation of AL. In particular Freire's (Shor and Freire 1987) observation that dialogism does not mean that everyone *has* to speak is relevant to AL. Empowerment means different things to different learners.

However, the main theoretical idea on which this paper draws to construct this initial characterisation of Agentic Learning comes not from education theorists, nor is its level of analysis at that of the individual. Instead the level of analysis is primarily set at the level of the group. Consequently Habermas's (1962) ideas in relation to the structural transformation of the public sphere constitute an important element of the initial theoretical framework for analysis, in contrast to more traditional psychology and individual-focussed learning theories. The way Habermas characterised the emergence of the public sphere

as an open and egalitarian space for public debate during the 18th century can be regarded, to a large extent as an ideal that fostered 'rational debate'. Yet this is something that has probably rarely, if ever, been achieved. The encroachment on the public sphere by large media corporations, government itself and other corporate interests as well as powerful, and well-funded campaign groups made it subject to hegemonic domination by these forces. So, in consideration of the epistemic injustice experienced by young trans people this analysis draws particularly on Habermas's (1962) conceptualisation of the public sphere.

The advent of the internet has been argued (Elmer, Langlois, and Mckelvey 2012) to have changed the nature and importance of the public sphere as more hegemonic forces become more powerful. However when we start looking at social media beyond large platforms like Twitter, specific protected areas for particular groups can be created, such as the *Mermaids* forum⁴ referred to by interview participant Phil in the *Examining Data* section below. Other online architecture, even including that of Facebook, allows individuals to get together privately to engage socially, discuss ideas and signpost each other to resources. It would appear to be in these kinds of more private spaces that young trans people are engaging in Agentic Learning. Here the writ of those with dominant hegemonic power does not usually run, and this allows young trans and non-binary people to come out, learn about and negotiate their own identities and find help from those in similar circumstances who are able to share and signpost information. In this sense, the ideal of Habermas's public sphere is being realised, but in smaller groups, groups of people with similar experiences and subjectivities, away from the dominance of powerful interests manipulating the public sphere for themselves. The ability of young trans people to create their own virtual spaces outside the public sphere, which Papacharissi (2010) characterises as 'private spheres', is argued to be one of the key variables making Agentic Learning effective. This is not to assume that creating web spaces in which young trans people can engage in self-learning is straightforward. Jenzen's (2017) investigation into how young trans people create online spaces in ways that subvert existing online architecture and cis-centric systems of control suggests that they still need to pro-actively engage in finding creative ways of providing and maintaining such spaces. Jenzen is careful not to detail the locations of these online spaces, which would potentially leave them open to infiltration by anti-trans activists, and for this reason the present study purposely did not capture this kind of information beyond generalised descriptions. The ways young trans people negotiate online spaces is continually evolving in response to the different and changing internet and social media environments affecting them. Young trans people's creativity involves constantly carving out spaces on different social media platforms to enable them to interact and learn safely and productively. As I shall argue, AL needs to be regarded as a kind of pedagogy that characterises the learner as having a significant degree of agency throughout the entire learning process. For that to occur effectively it is important that the learning environment is free from hegemonic control.

Methodology

This paper is based on data from a cross-sectional, in-depth, qualitative research project into the lives of young trans and/or non-binary people which draws on *Social Activity Method* (SAM) (Dowling 1988, 2009, 2013). One of the main focuses of this study is online self-learning. Data were collected from semi-structured, wide-ranging, face-to-face

interviews, of between 40 and 130 minutes duration, with 16 young trans and non-binary young people aged between 18 and 26 based in the UK and Denmark. Seven were men, five were non-binary people and four were women. All were white except one who was mixed-race, and another who was of Asian heritage, they came from a wide range of class and educational backgrounds, from those with postgraduate qualifications to those who left full-time education in their mid-teens.

SAM is a constructivist sociological method that aims to produce ‘constructive descriptions’ as opposed to what Dowling (2009) characterises as ‘forensics.’ SAM does this by analysing empirical data by systematically looking for continuities and discontinuities, or alliances and oppositions (Dowling 2009, 230), through which it identifies exclusive binary scales emergent from the data which are then combined to form relational spaces like that in Figure 1. While some may suggest that binaries are unhelpful, the use of two binary scales together breaks down binaries to produce four (sometimes three) relational ideal types of strategies or modes of action which can then constitute a constructive description. This is the *deformance* of the data akin to that which McGann and Samuels (2000) alluded. Exclusive binary scales are usually recruited in SAM because to include any intermediate points on a scale relating to, for example, in Figure 1, *localising* and *generalising* discourses would inevitably imply attaching some kind of quantitative value (or value-judgment) to that which is qualitative. For example, to assign an intermediate position; such as 50% localising/50% generalising, would involve attempting to apply a numerical value to that which cannot be quantified.

Given the disproportionate level of ethical problems, from Krafft-Ebbing (2013[1886]) onwards, over which concerns have been expressed in relation to research about trans people (see Conway 2007; Turban 2020b), ethical considerations were regarded as of prime importance in this research, and full institutional review based on the British Sociological Association ethical guidelines (2017) was obtained prior to data collection with, in particular, prior informed consent obtained from all participants, who were all over 18. All participants were allocated pseudonyms reflecting their genders, races and cultural backgrounds. One of the principal ethical considerations, however, was the need to avoid epistemological violence (Teo 2010) in the process of interpreting the data. This can be harder to identify and guard against with reference to more legalistic ethical guidelines and it can be difficult to put such considerations into terms as specific as, for

<u>Discourse</u>	<u>Mode of Engagement</u>	
	Interactive	Non-interactive
Localising	<i>Supporting</i>	<i>Modelling</i>
Generalising	<i>Responding</i>	<i>Informing</i>

Figure 1. Modes of Agentic Learning.

example, the necessity to (usually) anonymise participants. Avoiding epistemological violence is best characterised as ensuring that data are not interpreted in ways that Other, pathologise or situate disadvantaged minority groups as somehow problematic. Checking one's interpretations of the data against a clear definition of epistemological violence (Teo 2010), and providing greater explicitness about how the data are interpreted, a particular feature of SAM, are ways of avoiding this. This is also one of the advantages of a constructivist methodology like SAM in that it sets out to avoid presenting hermeneutics as facts.

Data and results

To construct this characterisation of the different modes of Agentic Learning engaged in by young trans and non-binary people I shall refer to interview data obtained directly from the participants in this study. As with most constructive descriptions produced by Social Activity Method the relational space below is produced by drawing on concepts that emerge from the data through identifying exclusive binaries. The data will therefore initially be used to construct the two binary-scaled axes which will form the relational space in Figure 1. The first of these, constituting the vertical scale, is characterised as *Discourse*. This codes utterances as either *localising* or *generalising*. The first of these, *localising*, refers to discourse about the individual's own situation, while the other, *generalising*, refers to discourse about issues beyond one's own immediate circumstances.

A *Localising* discourse is exemplified by the way interview participant, Melissa, describes her response after experiencing epiphany:

INT: So did you go in the chat room ...

M: Yeah.

INT: How did that help out?

M: Yeah, it helped out; felt comfortable. [...] there's rooms where people talk to you if you're having issues ...

This is characterised as an example of a *localising* discourse because Melissa is discussing her own feelings online and obtaining personal support. She is referring to nothing beyond her own feelings.

Generalising is exemplified by the way that interview participant Wesley started to research different medical pathways:

... obviously the pathway is more kind of binary oriented, but I've researched it and researched it and researched it.

Here Wesley is engaging with a more *generalising* discourse, he is looking at general level material, which would enable him to make a decision about his future as well as convince others in his family of his gender, so he looked at 'the [medical] pathway' to help him come to decisions about what medical interventions he wants. So here we have two examples of the first binary scale, *localising* – *generalising*, constructed with reference to the data. The horizontal scale is constructed in the same way.

The horizontal binary scale is characterised as *Mode of Engagement*, defined as either *interactive* or *non-interactive*. An interactive strategy is where there is engagement with others, for example Steve:

I decided I needed to speak to other people, so I went on this forum, which I just ranted constantly at for, like, three months.

Steve interacted on a forum set up by young trans people to connect with each other and clearly decided that speaking to others like him was important. Indeed, his engagement in online forums was so intense that he reported needing to retake his second year at university because he had spent so much time and energy on these interactions, emphasising their importance to him. In contrast Harry's mode of learning was almost entirely non-interactive:

Definitely online and reading people's blogs, mainly reading people's blogs because I didn't know any trans people at the time. I didn't go to any youth groups, but found out about Gendered Intelligence quite quickly, but I think I was scared to go to the groups, so I didn't ...

Harry reports at first not needing to engage with the kind of online interaction that Steve describes participating in, for him this was sufficient at that time, although later, when he had become more confident he took part in face-to-face group meetings with other young trans people.

This characterisation of these two variables enables the construction of the *Modes of Agentic Learning* schema in [Figure 1](#) below.

These two axes generate four Agentic Learning strategies; *supporting*, *modelling*, *informing* and *responding*. To exemplify each, I shall elaborate on each clockwise from the top-left corner. These modes are employed by differently by different learners using different media. It is important to emphasise here that these are, in effect four different ideal types of learning strategies, rather than descriptions of individuals; it is likely that the same individual will recruit different modes of Agentic Learning both concurrently and consecutively.

Supporting constitutes a localising discourse in combination with an interactive learning mode. Here reciprocal support and understanding is obtained, usually from others in a similar position or at a similar stage in their journeys. Phil's experience represents an example of this:

I remember joining it [Mermaids Children's Forum] and one of my oldest friends, who I'm still very close friends with, I met via that, err ... and I talked to him a lot on MSN ...

Phil joined a forum and made one particularly good friend, someone in a similar position to him, with whom he then interacted independently, engaging in mutual support and becoming close friends. This constituted his main initial *support*, from someone at a similar stage in his journey.

Modelling is the next mode, moving clockwise round the relational space. It is a mode of learning exemplified by Harry's experience, described in the quotation from him above: reading blogs by other trans boys or young trans men. His engagement with self-learning was, at that stage, entirely non-interactive, something enabled by these blogs.

I realised quite quickly that I didn't need the support that other people needed because I just got through it on my own through the Internet, but I didn't even talk to people online it was just reading, understanding why this person felt this way, this person felt that way.

So, in this instance, however, Harry did not engage in any interaction with others, he simply read, and later looked at online videos, which was sufficient for his purposes at that stage.

Harry's learning was reading, looking and listening without interacting. He reported not going to a *support* group until much later, it met face-to-face and engaged in interactive activities to *support* young trans people. This support group was also described by Hannah as constituting a basis for her own learning and social life to the extent that she felt able to overcome years of fearful self-isolation worried about being accepted as who she is. For Harry the technology was used in a different way from that of other young trans people, likewise Hannah, although she attended a face-to-face support group, also engaged in *supporting* through online social media prior to this, and was able to benefit from the *support* of others:

I did sort of go on a few forums and a few chat rooms and spoke to other trans people who were in the same position as me and erm ... they helped ... they helped me explore how I wanted to be perceived.

Informing, in the bottom right corner of the relational space is characterised as constituting a generalising discourse that is non-interactive. Harry's engagement with online videos by other trans men and boys were non-interactive but localising, in that they tended to focus on the personal. *Informing* in contrast, is characterised as finding out from general information sources, such as the GIRES² website, the TransActual³ website, from Mermaids,⁴ or from various blogs, where information is not restricted to just one single example each time, as with *modelling*. Caroline describes these kind of sources in detail:

... there's a lot on the internet, it's got things on all levels, whether you are just coming to terms and want, sort of ... basic information or want sort of ... more advanced philosophy sort of things. So I do spend a lot of my time reading lots of bits and pieces.

So, *informing* is distinguished from *modelling* in that it tends to include generalising discourses about wider issues including transfeminism, trans politics and activism, in comparison with *modelling* which is more specific to individuals' subjectivities. The material Caroline and Phil describe is often different from the YouTube vlogs of the kind researched by Raun (2016). Whilst the former are aimed at providing information on a more general level about trans and non-binary people, the latter tend towards a more localised understanding that shares individual experiences. These do not usually attempt to make significant generalisations beyond the individual's own circumstances and experience. This is not to suggest that both the content of the blog/vlog format cannot also constitute an *informing* mode of Agentic Learning or that they are necessarily engaged in *modelling*, it is the mode of learning that is important as opposed to the type of media employed.

It is significant that Harry and Phil seemed to take very different approaches to learning in this respect. While Harry reported initially relying almost entirely on *modelling* as his means of coming to understand himself, Phil employed a much wider range of learning

strategies but in particular seemed to recruit the *informing* mode most often, something Caroline, Wesley, Miles and Hannah did also. It seems that this latter group took a more general view of trans people, whereas Harry was more interested in safely transitioning personally. Until he joined a trans youth group much later, he had not actually interacted with any other trans people either online or offline.

Responding, in the bottom left corner of the relational space, is characterised as akin to applied learning and something most participants engaged in at some point in their journeys. In essence it involves educating others about what it means to be trans and engaging in activism to change systems that do not fully or fairly accommodate trans people. It is likely that most trans people engage in this kind of applied learning or learning-with-activism to the extent that one participant, Andy, made the following observation:

When you get two or more trans people together, you get trans activism.

In David's interview he gave a good example of how young trans people become involved in *responding*, as a speaker going round schools talking to other pupils about trans people,

I'm part of this going out group in LGBT Denmark, the youth where we visit schools, different schools, going out and talking and about who we are, and taking questions from students, it's pretty cool ...

Likewise, Melissa, a young trans woman in the south of England, helped organise a *Transgender Day of Remembrance* event, as well as a drop-in evening for young trans people locally in a café. Steve also described how, when he was a student, he teamed up with a young trans woman and created an information leaflet about trans people for his student union:

... at my university its very small and there wasn't very much trans information so me and this girl we thought we might maybe put together an informational leaflet.

There were plenty of examples of how young trans people applied their learning to help other young trans people, from one-to-one conversations on social media to helping with an internationally coordinated effort to save a trans woman seeking refugee status in Denmark from being deported to near-certain death in Central America. In short even the one participant who claimed he had not really been engaging in activism reported working hard to counter gender stereotypes and expectations amongst pupils in the school where he worked.

It needs to be emphasised at this point about these different modes of learning that participants used the technology or format in different ways and at different times, and did this to suit themselves and their own learning needs at the time and relative to their own stage of development and understanding. Harry only reported engaging in offline *supporting* at a later stage in his self-learning, while Hannah engaged in online *support* first before attending a local young trans people's group. So, it is important then to understand that participants used the technologies and other resources available to them in different ways with the same technology or opportunity being used, for example, in a way that is characterised here as *supporting*, and also in a way that is characterised as *modelling*.

Whilst most examples of AL from participants have been predominantly in online environments, this is not always the case. This may be because more trans people are becoming visible, in some instances as a consequence, ironically, of widespread negative media coverage which appears to be resulting in more referrals of young trans people to specialist gender clinics (Pang et al. 2020). Some research participants reported experiencing epiphany as trans and engaging in a significant element of their learning offline. Fiona, a young trans woman, was literally introduced to another group of trans women and reported not learning much from the internet:

I didn't know the scene at all, I didn't know any of the websites . . . I kind of took one step and then I kind of took ten steps. Yes, I sort of put one foot into the trans scene and very quickly I was ten steps into it.

Caroline also reported learning through their interaction with people on the Goth scene during their first year at university:

. . . but having a scene that was sort of, openly accepting, was a good way, you know you can start to question things like 'Ah what are you doing with that person over there?', then you get challenged by someone and then you start to realize . . .

This is not to suggest that these participants did not also acquire knowledge from online sources, in addition to offline ones, but it seemed that they engaged in elements of *modelling* and *supporting* in these environments, and possibly elements of *informing* also. These face-to-face environments permitted similar kinds of interactions online sources did, and were also very similar in that they constituted spaces that were free of the kind of Habermasian dominance by hegemonic forces that control the public sphere.

Analysis

What this characterisation of learning modes reveals is how different learners engage in different modes of learning and adapt the resources available to their individual learning needs. The relational space in *Figure 1* constructs the language with which to talk about these. It is likely that ultimately there will be a greater variety of types of AL evident than the four modes suggest, and that each mode may represent a significant variety of types of learning that are employed in different ways by different young trans and non-binary people. So rather than constituting a simplification of different learning modes, this schema needs to be regarded as indexing a deeper complexity of actions by different learners in different situations, using different materials, different modes of engagement and learning and at different points on their journeys. Self-learning as a young trans or non-binary person who has recently experienced an epiphany or self-revelation that their gender is different from that assigned at birth needs to be regarded as varied, multi-layered and complex. It also tends to occur in the absence of any parental involvement or assistance (Kennedy 2020b). Moreover, it is important to recognise that this learning is achieved in the face of, on the one hand, hermeneutical epistemic injustice, which suggests why *informing* and *modelling* appear in the relational space and, on the other, testimonial epistemic injustice, suggesting why *supporting* and *responding* are also evident.

So, what characterises these spaces in particular, constantly created and re-created by young trans and non-binary people is an *absence* of hegemonic forces of cisnormativity, hegemonic media interests and powerful transphobic groups. These private spheres can be regarded as constructed in order to escape the reach of these controlling and oppressive influences and power structures that skew interactions the main public sphere. These produce environments in which young trans people can learn about themselves, explore their new identities, acquire new technical knowledge (for example about the medical and legal aspects of transition), express themselves, network and form friendships with others like them. The key characteristic of these spaces then, might be regarded as an absence of the wider community. It is argued here that this may be one of the key factors enabling these groups to productively engage in self-learning. Agentic Learning appears to be dependent on that lack of hegemonic domination and the ideologically-fabricated misleading material of the kind routinely reproduced in mainstream media.

This is not to argue that online spaces with an absence of hegemonic and destabilising forces of powerful transphobes and others are, on their own, productive of AL. Yet there is clearly much that goes on within these spaces that is productive. In particular young trans people draw on and signpost to each other resources from different parts of the internet, and use them in different ways, both material created by young trans people and material created by others, to the extent that Agentic Learning spaces can be regarded – at least in part – as distributed rather than centralised. It is also significant, as Jenzen (2017) reports, that these spaces are often created and maintained by young trans people themselves. Thus the absence of transphobic, cis-centric, cisnormative and deliberately misleading influences should be regarded as a positive and productive absence actively created by the agency of these young trans people. One can argue that while the original public spheres came into existence in a largely unplanned way, in the case of these private spheres their existence is a consequence of deliberate and planned actions by members of these communities. This is not merely an act of spirited and rebellious trans activism in the face of persistent efforts to suppress young trans people's agency, rights and access to information, and portray them as 'passive victims' of some kind of conspiracy, it is an act of very considerable agency and social entrepreneurship. So, as things stand in the UK and elsewhere, despite considerable attacks from those in positions of power, the act of claiming online space is important and productive (Barker 2017; Baker 2019; Braidwood 2018; Phipps 2020; Vincent, Erikainen, and Pearce 2020; Matzner 2001). It is important for self-learning and cultural, social and political development as well as simply for safe socialising in a space without constant transphobia (Tudor 2021). In effect young trans people are forced to occupy marginal spaces in cultural circumstances that Anzaldúa (1987) might regard as not dissimilar to her own, only today some of the marginalised can establish virtual spaces where their experiences are centred, at least temporarily. It is from such positions however, that understandings and subjectivities can be formed more consciously in response to the forces of structural oppression.

The learning taking place under these conditions, conditions that might, on the surface, appear – at the very least – to be suboptimal, seem to be very effective. The young trans people engaged in self-learning in these groups are coming to understand themselves in the face of a society the most powerful members of which often do not fully accept them, and a culture that is becoming increasingly dominated by transphobic

media disinformation campaigns and brutal anti-trans organisations. It is significant that young trans people in these groups also acquire technical knowledge about healthcare for trans people and the legal side of transition. As Caroline expressed it, their knowledge of UK law had become so good that they were unsure about travelling abroad because their knowledge of legislation elsewhere might not be as encyclopaedic:

I've been put off travelling quite a lot because other places will have different laws, the amount of work you have to do to make sure you know what your rights are. You know I pretty much know most of the Equality Act off by heart, I've had to invoke it so many times ...

Hence there is evidence that these spaces are enablers of an effective learning system in which one would probably be able to identify elements of different established learning theories where *supporting*, *informing*, *modelling* and *responding* modes of learning are enabled through the absence of hegemonic and oppositional elements.

Evaluating the experiences of those engaged in Agentic Learning alongside the work of Wagner (2008a) may be productive at this point. Wagner's research outlined what he described as Seven Survival Skills for the 21st Century, which included: critical thinking and problem solving; collaboration and leadership across networks; initiative and entrepreneurialism; effective oral and written communication through the ability to think clearly; and accessing and analysing information. If Wagner's characterisation of the skills young people will need is valid, young trans and non-binary people would appear to be better equipped for both working and civic life in the 21st century than almost any other group. Yet it is perhaps also likely that they will need these skills in abundance for navigating the transphobic cultural environment now being created by the media (Kennedy 2020a). However, AL goes beyond Wagner and can be regarded as much more dependent on the agency of the learners, which might explain why Wagner did not find evidence of these skills in any schools. The culture of schooling has historically developed from a factory-like, rote learning system (Robinson and Aronica 2016), such that coping with, much less promoting, learner agency might in many instances, be difficult.

Wagner's list is to be regarded however, as a *curriculum* as opposed to a learning theory, and many would take issue with its contents given that they are derived from engagement with senior recruitment personnel from large corporations. In particular, it leaves out skills such as empathy, listening, understanding and communicating complex ideas, identifying power structures, organising resistance, working within legal structures, using (social) media, and critiquing disinformation. Wagner's list does, however, index need for important skills – often highly valued by employers – that are lacking in most formal education systems, but which appear to be developed in Agentic Learning environments. However, the ways these young trans people are acquiring skills and knowledge is what is in question in this paper. Comparison with Wagner is therefore only productive in terms of understanding the aspirations of some educationists and large, possibly enlightened, corporate interests.

What appears to be happening in the case of young trans people is that they are engaging in self-learning in a complex, varied and nuanced way. The data from this study suggests that as learners they are making choices, not merely in terms of the selection of sources, but *how* to use them, in what order and in what combinations. This is why this

paper puts forward Agentic Learning as a possible learning theory or model to explain and develop this through further research; indeed it might potentially also constitute a way that Wagner's skills list could be developed or implemented. At both collective and individual levels, young trans people are making choices about the *way* they learn, not merely about what they are learning. They are not doing this in an explicit way – they are not examining particular learning theories in the way teachers might and making decisions about whether to engage in dialogic method or constructivist learning, for example. They are making tacit choices based on their own subjective abilities, needs and experience of what works for them. Obviously also there is a level of motivation involved that is not always going to be present in every area of learning children encounter, but it can be argued that this motivation encourages them to select the mode of learning they feel is most likely to be productive for them.

It is also evident that these young people are engaging with different learning materials in different ways according to their own learning preferences and needs. What is significant about this is not just the variety of different modes of learning and ways they are recruited and combined, it is the way that learners are actively making choices about how they learn. Teachers may be familiar with theories like constructivist and dialogic learning, pupil voice and other attempts to give learners elements of autonomy over the learning process; however, Agentic Learning extends beyond this and suggests that in some instances learning may be most effective when the learners have a significantly greater level of control over *how* they are learning. For young trans people that includes establishing, through collective action, spaces where learning can take place free from restrictive and oppressive hegemonic forces. The pedagogical implications of this are potentially quite profound in terms of teaching and learning in formal educational settings as well as for the curriculum and the organisation of formal education. From a pedagogical perspective it implies giving learners the option to select modes of learning for themselves, or how they use a given resource, and to do so in specific interest groups. To this extent AL is very different and much more complex compared to the claims made about learning as a 'self-organising system' put forward by Mitra and Dangwal (2010). AL is characterised in the way that similar things are learnt differently by different learners, part of a wider but specialised learning community often using a wide selection of resources that are widely distributed on the internet and elsewhere. It raises the issue of how we can extend an element of pedagogical control to learners in order to improve learning. Furthermore, one of the conclusions that can be made in relation to Agentic Learning is that of curriculum development. It is evident that the young people in this study are highly motivated by the content of what they are learning, it is after all, directly relevant to them. The implication here is that curricula need to reflect the interests of learners more directly or provoke an interest in them. Giving learners an element of control over what they learn and/or making the learning relevant to their needs as well as the way they learn, can be regarded as an important element in how effectively their learning proceeds. Of course, this has implications for the way learning is organised in formal educational settings, including issues relating to the way, in some instances, teachers may need to – literally – get out of the way in order to facilitate learning. This might be one of the most significant obstacles to making use of AL in formal education settings. Ito (2017) drawing on Shor and Freire (1987), advocates what he calls *Participant Design*, which may represent a way forward. Regarding course design as necessarily involving learners (and teachers) by using distributed design,

planning and production of learning materials, may constitute a way to progress beyond existing educational paradigms, to making learning more engaging, effective, democratic and active. While, superficially AL may be regarded as irreconcilable with formal education, it is possible that it does not have to be. Indeed, I would argue that teachers can prepare learners to participate productively in AL spaces by providing them with research skills and techniques for interacting with each other online. These could include learning how to use a variety of online materials differently and how to evaluate different sources of information, as well as how to set up and maintain productive AL spaces. Further research needs to establish what are the skills necessary to participate in AL, and whether there are learners who might not engage in such environments because they lack the skills, and whether these individuals can acquire those skills through engagement in AL spaces. Shor and Freire (1987) and Ito (2017) advocate designing systems by regarding them as complex, interrelated and multi-layered, and this is one aspect of AL that seems to be apparent; that learning needs to be regarded as a complex system. If this is the case, then the way it is planned and prepared needs to be considered as a participant activity. So, from this initial data it seems likely that further investigation of Agentic Learning will reveal that it is nuanced, varied and complex, more so even than suggested here, in which case producing a clear definition of Agentic Learning too early is unlikely to be either reflective of that complexity and nuance, or be complete, definitive and comprehensive. Ultimately, any definition at this stage potentially runs the risk of producing a necrotising or totalising effect hindering further investigation. What I have attempted to construct here is an initial ostensive characterisation of AL; however, ostensive characterisations are not definitions. So, a *necessarily contingent working* definition of AL would be where the learner makes pedagogic decisions about how to learn and does so in an environment free from hegemonic pressures and influences. The glimpses presented here of how young trans and non-binary people engage in self-learning through AL, in the face of attempts by powerful forces to prevent them from doing so suggests it is a formidable and productive mode of learning not merely in terms of its implications for understanding the pedagogy of informal learning, but for constructing further insights into learning in formal educational settings. In many ways society claims to value agency, autonomy and individual action, the fostering of these qualities however, often appears to be more theoretical than evident, especially for people from marginalised and disempowered groups.

Conclusion

The research by Clark and Virani (2021), referred to in the Antecedent Literature section above demonstrated that the outcomes of young trans people's online self-learning are very good in terms of understanding the important technical details of endocrinology with specific reference to hormone treatments for young trans people. This is a crucial determinant of the outcome of AL and provides evidence that it is effective beyond the kind of personal and social development one might expect from this kind of learning. This suggests it is suitable for many kinds of learning, including the technical/specific.

It is likely that the experience of young trans people is not the only manifestation of Agentic Learning. I would argue that, as mainstream media has become more widely regarded as manipulative and unreliable (Ardevol-Abreu and Gil De Zuniga 2016; Fletcher and Park 2017; Lewis 2020), and the education system more centrally controlled, many

young people have become aware of the need to consider learning and obtaining information as something they need to engage in more actively and collaboratively. In the case of young trans people, the lack of information, coupled with the deliberate misrepresentation of trans people and the systematic exclusion of our voices from the media, are important considerations. The way trans people are treated by the media therefore make different forms of learning attractive. This has probably resulted in AL not just being a feature of the self-learning processes of young trans people, but of similar and intersecting groups such as those concerned with the climate crisis and supporters of the Black Lives Matter campaign. In a sense, trans people, climate change activists, BLM supporters, and even anti-Brexit campaigners appear to have become accustomed to distortion, omission, manipulation and unreliability in the way they and the issues they care about are (mis)represented by mainstream media. So, if the media is regarded as a hegemonic force, Agentic Learning can be regarded, at least in part, as a response to that. In terms of young trans people one of the key features of Agentic Learning involves, in part, creating spaces where hegemonic forces are no longer able to influence the conversation, determine the language used or set the terms of the interactions. Indeed, it is difficult to envisage any form of learning being agentic unless spaces outside the main hegemonic power structures are created by learners, occupied and protected by them. This might, on closer inspection, be characterised as a kind of Participant Design.

Thus further research into Agentic Learning is needed with a number of different objectives, but first and foremost to come up with a more comprehensive and effective characterisation of AL beyond that outlined here and to identify how it may be manifested in different contexts. There are a number of aspects that need to be investigated: In what different ways does AL work? Does it work differently for different groups of people? Are there cultural, class or other considerations that might make it less likely to be used, or used in certain ways, by some groups? What might its limitations be? Is it something likely to exist mainly in an online context? How can domination by members of relatively privileged groups be avoided? What forces might attempt to restrict or disrupt its functioning, particularly in terms of *responding*, and how might this be countered? What benefits specifically might Agentic Learning provide for the individual, for the learning community and for wider society? In particular, could it be drawn on by teachers in formal education? The difference between learners establishing such spaces and self-selecting learning methods and teachers setting them up in the context of formal education is likely to be considerable and would depend at the very least on the relinquishing of control, to a significant extent, by teachers. Most importantly however what is needed is an attempt at characterising in greater detail, from further observational and participatory research, the features of Agentic Learning in different contexts. In particular, learning from groups like young trans people, about the ways they create these kinds of learning environment and engage in learning through them, but in such a way that it does not permit transphobic groups and individuals to disrupt them.

The purpose of this paper has been to introduce and propose the idea of Agentic Learning as a potential means of rethinking education and learning, and to raise it as an area for further research. In so doing AL can be regarded as having the potential to raise a great deal of other important questions – on more than one level – about learning in the 21st century. The availability of the internet and social media, coupled with, on the one hand, more restrictive editorial practices in mainstream news media to exclude, manipulate, misrepresent or distort

news items and, on the other, the increasingly centrally-controlled, neoliberalised and over-monitored nature of the school curriculum (Carlile 2018 p17), have all presented learners with the need for more reliable, relevant, useful, fulfilling and diverse sources of both learning and information. The idea of Agentic Learning may directly challenge the ideology behind the tightly controlled, marketised neoliberal system of privatised schools working within an authoritarian and centralised panoptic education system such as that of the UK. As such AL may not be entirely incompatible with ideas of Robinson (2006), Robinson and Aronica (2016), Ravitch (2020) or Freire (1968). It may be valid to regard Agentic Learning not merely as an emergent response to increasing transphobia in the UK, but also to the increasingly neoliberalised education system and untrustworthy media environment.

Furthermore, what is also particularly noteworthy from the evidence presented and analysed in this paper, is that what I call the ‘passive victim narrative’ that the media has deployed to misrepresent trans children and young people (Turban 2020a) as somehow manipulated by adults, is as far from reality as it could possibly be. Further research also needs to produce a wider acknowledgement of the agency and activism of young trans people in the face of transphobic narratives propagated by opaquely-funded transphobic groups, corporate media and the extreme right, especially in the UK (Barker 2017; Braidwood 2018). Trans and non-binary children and young people are particularly vigorous, tenacious, creative, spirited and intelligent agents actively engaged in learning about – and the creation of – their own lives under the most difficult of circumstances. Their crucial and productive endeavour, inventiveness and innovation in doing so needs to be encouraged, nurtured and learned from.

Discourse	Mode of Engagement	
	Interactive	Non-interactive
Localising	Supporting	Modelling
Generalising	Responding	Informing

Notes

1. E.g. <https://www.spectator.co.uk/article/do-tv-characters-of-old-transwomen-really-influence-the-gender-of-young-girls->
2. www.gires.org
3. Transactual.org.uk
4. Mermaidsuk.org.uk

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References

- Alexander, R. 2008. *Towards Dialogic Teaching: Rethinking Classroom Talk*. Thirsk N Yorkshire: Dialogos.
- Anzaldúa, G. 1987. *Borderlands/La Frontera: The New Mestiza*. San Francisco: Aunt Lute Books.
- Ardevol-Abreu, A., and H. Gil De Zuniga. 2016. "Effects of Editorial Media Bias Perception and Media Trust on the Use of Traditional, Citizen and Social Media News." *Journalism & Mass Communication Quarterly* 94 (2). doi:10.1177/1077699016674188.
- Baker, P. 2019. *Representing Trans People in the UK Press – A Follow-up Study*. ESRC Centre for Corpus Approaches to Social Science, Lancaster University.
- Barker, M. 2017. "A Trans Review of 2017: The Year of Transgender Moral Panic." *The Conversation* 27 December 2017. <http://theconversation.com/a-trans-review-of-2017-the-year-of-transgender-moral-panic-89272>
- Beemyn, G., and S. Rankin. 2011. *The Lives of Transgender People*. New York: Columbia University Press.
- Braidwood, E. 2018. "Trans 'Extremists' and 'Rapists': How the Media Reported on Trans People in 2018." *PinkNews*, 31 Jan 2018. <https://www.pinknews.co.uk/2018/12/31/trans-extremists-media-press-headlines/>
- Carlile, A. 2018. "School Surveillance, Control and Resistance in the United Kingdom." In *(2018) the Palgrave International Handbook of School Discipline and Social Control*, edited by E. Taylor, A. Kupchik, and J. Deaking. Oxford: Palgrave Macmillan.
- Clark, B., and A. Virani. 2021. "'This Wasn't a Split-second Decision': An Empirical Ethical Analysis of Transgender Youth Capacity, Rights and Authority to Consent to Hormone Therapy." *Bioethical Inquiry*. doi:10.1007/s11673-020-10086-9.
- Conway, L. 2007. *An Investigation into the Publication of J. Michael Bailey's Book on Transsexualism by the National Academies*. <http://ai.eecs.umich.edu/people/conway/TS/LynnsReviewOfBaileysBook.html>.
- Costa, L., and A. Matzner. 2007. *Male Bodies Women's Souls: Personal Narratives of Thailand's Transgender Youth*. London: Haworth Press.
- Devor, A. H. 2004. "Witnessing and Mirroring: A Fourteen Stage Model of Transsexual Identity Formation." *Journal of Gay & Lesbian Psychotherapy* 8 (1–2): 41–67.
- Dowling, P. 1988. *The Sociology of Mathematics Education: Mathematical Myths/Pedagogic Texts*. London: RoutledgeFalmer.
- Dowling, P. 2009. *Sociology as Method: Departures from the Forensics of Culture, Text and Knowledge*. Rotterdam: Sense.
- Dowling, P. 2013. "Social Activity Method (SAM): A Fractal Language for Mathematics." *Mathematics Education Research Journal* 25 (3): 317–340. doi:10.1007/s13394-013-0073-8.
- Duck-Chong, L. 2018. "Rapid-onset Gender Dysphoria Is a Poisonous Lie Used to Discredit Trans People." *The Guardian* 21 Oct 2018.
- Eckstein, A. 2018. "Out of Sync: Complex Temporality in Transgender Men's YouTube Transition Channels." *QED: A Journal in LGBTQ Worldmaking* 5 (1): 24–47. doi:10.14321/qed.5.1.0024.
- Elmer, G., G. Langlois, and F. Mckelvey. 2012. *The Permanent Campaign, New Media, New Politics*. New York: Peter Lang.
- Fletcher, R., and S. Park. 2017. "The Impact of Trust in the News Media on Online News Consumption and Participation." *Digital Journalism* 5 (10). doi:10.1080/21670811.2017.1279979.
- Freire, P. 2001 [1968]. *Pedagogy of the Oppressed*. New York: Continuum.
- Gill-Peterson, J. 2018. *Histories of the Transgender Child*. Minneapolis: University of Minnesota Press.
- Habermas, J. 1962. *Strukturwandel der Öffentlichkeit*. Darmstadt: Hermann Luchterhand.
- Ito, J. 2017. "Resisting Reduction: A Manifesto. Designing Our Complex Future with Machines." *Journal of Design and Science*. doi:10.21428/8f7503e4.
- Jenzen, O. 2017. "Trans Youth and Social Media: Moving between Counterpublics and the Wider Web." *Gender Place and Culture* 24 (11). doi:10.1080/0966369X.2017.1396204.

- Kennedy, N. 2014. "Gefangene der Lexikon: Kulturelle Cis-Geschlechtlichkeit und trans Kinder." In *Normierte Kinder: Effekte der Geschlechternormativität auf Kindheit und Adoleszenz*, edited by E. Schneider and C. Balthes-Löhr. Bielefeld: Transcript Verlag.
- Kennedy, N. 2020a. "Becoming: Discourses of Trans Emergence, Epiphanies and Oppositions." In *The Emergence of Trans: Cultures, Politics and Everyday Lives*, edited by R. Pearce, K. Gupta, I. Moon, and D. Steinberg. Abingdon: Routledge.
- Kennedy, N. 2020b. "Deferral: The Sociology of Young Trans People's Epiphanies and Coming Out." *Journal of LGBT Youth*. doi:10.1080/19361653.2020.1816244.
- Kergil, S. 2017. *Before I Had the Words: On Being a Transgender Young Adult*. New York: Skyhorse.
- Krafft-Ebbing, R. 2013 [1886]. *Psychopathia Sexualis with Special Reference to Contrary Sexual Instinct: A Medico-legal Study*. Philadelphia: F.A. Davis & .
- Kuper, L., N. Adams, and B. Mustanski. 2018. "Exploring Cross-sectional Predictors of Suicide Ideation, Attempt and Risk in a Large Online Sample of Transgender and Gender Nonconforming Youth and Young Adults." *LGBT Health* 5 (7): 391–400. doi:10.1089/lgbt.2017.0259.
- Lee, V. 2004. *Wayout World*. 12th edition ed. London: Wayout Publishing.
- Lester, C. 2017. *Trans like Me: A Journey for All of Us*. London: Virago.
- Lewis, S. 2020. "Lack of Trust in the News Media, Institutional Weakness, and Relational Journalism as a Potential Way Forward." *Journalism* 21 (3). doi:10.1177/1464884918807597.
- Malatino, H. 2015. "Pedagogies of Becoming: Trans Inclusivity and the Crafting of Being." *Transgender Studies Quarterly* 2 (3): 395–410. doi:10.1215/23289252-2926387.
- Matzner, A. 2001. *O Au No Keia: Voices From Hawaii's Mahu and Transgender Communities*. Bloomington: Xlibris.
- Maude, D. 2020. "Queer Nations and Trans-lations: A review of Akiko Shimizu, 'Imported' feminism and 'indigenous' queerness: From backlash to transphobic feminism in transnational Japanese context. Report on Lecture and Seminar, University of California Berkeley." *Postmodern Culture* 30 (2).
- McGann, J., and L. Samuels. 2000. "Deformance and Interpretation." In *Radiant Textuality: Literature after the World Wide Web*, edited by J. McGann. New York: Palgrave.
- Medina, J. 2017. "Varieties of Hermeneutical Injustice." In *The Routledge Handbook of Epistemic Injustice*, edited by J. Kidd, J. Medina, and G. Pohlhaus. Abingdon: Routledge.
- Mitra, S., and J. Dangwal. 2010. "Limits to Self-organising Systems of Learning – The Kalikuppam Experiment." *British Journal of Educational Technology* 41 (5): 672–688. doi:10.1111/j.1467-8535.2010.01077.x.
- Nicolazzo, Z. 2017. *Trans* in College: Transgender Students' Strategies for Navigating Campus Life and the Institutional Politics of Inclusion*. Sterling VA: Stylus.
- Pang, K., N. De Graaf, D. Chew, M. Hoq, D. Keith, P. Carmichael, and T. Steensma. 2020. "Association of Media Coverage of Transgender and Gender Diverse Issues with Rates of Referral of Transgender Children and Adolescents to Specialist Gender Clinics in the UK and Australia." *Pediatrics* 3 (7).
- Papacharissi, Z. 2010. *A Private Sphere: Democracy in a Digital Age*. Cambridge: Polity.
- Phipps, A. 2020. *Me Not You: The Trouble With Mainstream Feminism*. Manchester: Manchester University Press.
- Piaget, J. 1977. *The Development of Thought: Equilibration of Cognitive Structures*. New York: Viking.
- Raun, T. 2016. *Out Online: Trans Self-Representation and Community Building on YouTube*. London: Routledge.
- Ravitch, D. 2020. *Slaying Goliath: The Passionate Resistance to Privatization and the Fight to Save America's Public Schools*. New York: Alfred A Knopf.
- Robinson, K. 2006. Do Schools Kill Creativity?. *Ted Talk on ted.com*. https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity?language=en
- Robinson, K., and L. Aronica. 2016. *Creative Schools: Revolutionizing Education from the Ground Up*. New York: Penguin.
- Shor, I., and P. Freire. 1987. "What Is the "Dialogical Method" of Teaching?." *Journal of Education* 169 (3): 11–31. doi:10.21428/a39a747c.
- Slavin, K. 2016. "Design as Participation." *Journal of Design and Science*.

- Stryker, S. 2006. "(De)subjugated Knowledges: An Introduction to Transgender Studies." In *The Transgender Studies Reader*, edited by S. Stryker and S. Whittle. Abingdon: Routledge.
- Teo, T. 2010. "What Is Epistemological Violence in the Empirical Social Sciences?." *Social and Personality Psychology Compass* 4 (5): 295–303. doi:10.1111/j.1751-9004.2010.00265.x.
- Turban, J. 2020a. "JK Rowling and the Chamber of Trans Youth Misinformation." *Psychology Today* 28 July 2020.
- Turban, J. 2020b. "The Disturbing History of Research into Transgender Identity." *The Scientific American* 23 October 2020.
- Vincent, B., S. Erikainen, and R. Pearce. 2020. *TERF Wars: Feminism and the Fight for Transgender Futures*. London: Sage Sociological Review Monographs.
- Violet, M. 2018. *Yes You are Trans Enough*. London: Jessica Kingsley.
- Vygotsky, L. 2012 [1934]. *Thought and Language*. Cambridge MASS: MIT Press.
- Wagner, T. 2008a. "Rigor Redefined." *Educational Leadership* 66 (2): 20–25.
- Whittle, S. 1998. "The Trans-Cyberian Mail Way." *Social & Legal Studies* 7 (3): 389. doi:10.1177/096466399800700304.
- Williams, W. 1986. *The Spirit and the Flesh: Sexual Diversity in American Indian Culture*. Boston: Beacon Press.