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Digital Ecologies of Youth Mental Health: Apps, Therapeutic Publics and Pedagogy as Affective Arrangements

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Abstract: In this paper, we offer a new conceptual approach to analyzing the interrelations between formal and informal pedagogical sites for learning about youth mental (ill) health with a specific focus on digital health technologies. Our approach builds on an understanding of public pedagogy to examine the *pedagogical modes of address* (Ellsworth 1997) that are (i) produced through 'expert' discourses of mental health literacy for young people; and (ii) include digital practices created by young people as they seek to publicly address mental ill health through social media platforms. We trace the pedagogic modes of address that are evident in examples of digital mental health practices and the creation of what we call *therapeutic publics*. Through an analysis of mental health apps, we examine how these modes of address are implicated in the *affective process of* learning about mental (ill) health, and the *affective* arrangements through which embodied distress is rendered culturally intelligible. In doing so, we situate the use of individual mental health apps within a broader digital ecology that is mediated by therapeutic expertise and offer original contributions to the theorization of public pedagogy.

1. Introduction

Mental ill health is now widely recognised, from a variety of perspectives, as a global public issue that affects many young people. In the United Kingdom, Department for Education research has reported that the shift from a period of sustained economic growth in 2005 to one of recession, austerity and a competitive job market have meant that youth is commonly characterised as a time of "anxiety and a sense of being under pressure" (Coughlan 2016). National surveys identify an increase in young people experiencing mental health problems—emotional distress, problematic stress and anxiety levels—that manifest themselves through a multitude of experiences. For example, depression, eating disorders, sexual violence, childhood trauma, self-harming, severe and enduring mental health issues (McManus et al. 2016). Mental ill health is increasingly being recognized as a significant health, sociocultural and economic issue that warrants critical consideration in terms of the emergence of digital responses and solutions to address this "problem". E-therapies for mental health and digital innovations have grown rapidly over the past few years, namely as a result of, a multitude of factors, including the extraordinary rate at which technology has become a feature of everyday practices, the pressures on healthcare providers to deliver more for less money, a drive for services to be delivered flexibly in a patient-centred manner and the empowerment that e-therapies can bring to

service users by enabling them to make choices about when and how they access psychological care (Hill et al. 2017, p. 1).

In a departure from Hill et al.'s (2017) focus on recommendations to ensure the clinical efficiency, cost-effectiveness, sustainability, and evidence base of these digital psychological innovations, our research moves towards a new conceptual approach by analyzing the interrelations between formal and informal pedagogical sites for learning about youth mental (ill) health (see also, Fullagar et al. 2017). This approach explores the production of meanings—material, affective, discursive—and ways of knowing that are "co-implicated in the political, economic, material and discursive relations of digital mental health as an affective arrangement of learning-knowing" (Fullagar et al. 2017). Within this paper, we draw upon these ideas to trace the 'pedagogic modes of address' (Ellsworth 1997) that are evident in examples of digital mental health practices and the creation of what we call therapeutic publics. In doing so, we situate the use of individual mental health apps within a broader digital ecology that is mediated by therapeutic expertise and examine the *affective arrangements* (Slaby et al. forthcoming, drawing upon Deleuze and Guattari) through which embodied distress is rendered culturally intelligible. We draw upon theorisations of affect that explore the forces through which the self moves and is moved (desire, power, human and non-human relations) in the complex assemblages of health, mental health, wellbeing and illness (see, Fox and Alldred 2016; McLeod 2017).

Recognising how digital mental health practices are transforming expert and lay knowledge, scholars from diverse social science disciplines have argued for more *relational and political* understandings of individual distress in the digital era (Hendry et al. 2017; McCosker 2017; Swist and Collin 2017; Fullagar 2008). However, in the broader literature there are quite different formulations of mental ill health in terms of how the self, or learner, is positioned within the political and pedagogical relations that shape knowledge and agency. For example, Burns et al. (2016) have identified the participatory possibilities of involving young people in the co-design of mental health help-seeking initiatives within the digital ecosystem. In a more critical vein, Maturo, Mori and Moretti (Maturo et al. 2016) suggest that digital mental health technologies (apps) serve to medicalise distress and obscure the social conditions that undermine wellbeing. In relation to how the mainstream media teach audiences about mental health issues (biocommunicability), Holland (2017) has analysed how a well intended public awareness campaign in Australia also generated public resistance to dominant biomedical framings of disorder. From feminist and post-humanist perspectives, Holmes (2016), Swist and Collin (forthcoming), Tucker and Goodings (2017) and McCosker (2017) trace the flows of affect and assemblages of meanings through online and offline sites: mental ill health is enacted and distress rendered knowable and intelligible through particular social media platforms, regulatory practices (algorithms, surveillance) and performative relations that shape self-hood.

What has been missing from this emerging literature is a more explicit focus on the kinds of learning and education that take place through everyday digital practices and how this is implicated in the *affective process* of coming to know embodied distress as mental (ill) health (Roen 2016). This question of sociomateriality and relations of affect also differs in orientation to the growing literature on mental health literacy (Kelly et al. 2007) that assumes a rational notion of subjectivity and transmission model of learning (see, Fullagar et al. 2017). Following Sandlin, O'Malley and Burdick (Sandlin et al. 2011, p. 359) we are thus mindful that we do not just produce analytical accounts of the digital artefacts/sites/apps, rather we aim to "understand how these educational sites and practices actually work to teach the public".

2. Youth and the (im)Possibilities of Techno-Optimism

Young people are increasingly being targeted for digital interventions as they are identified as a population at risk of 'mental disorder'. In the United Kingdom new figures point to a worsening picture across a diversity of young people's everyday lives. It is commonplace to read these figures cited in the popular media; more than one in four (26%) women aged 16 to 24 identify themselves as having anxiety, depression, panic disorder, phobia or obsessive compulsive disorder. One in five

women in this age group self harm and post-traumatic stress disorder rates have increased since 2007 (McManus et al. 2016). Gender inequalities and performative pressures on young women have been identified in the literature (Taguchi and Palmer 2013) as contributors to the social conditions of mental ill health. In addition, while men are frequently positioned as vulnerable to suicide and difficult to engage in help-seeking, there have been very limited attempts to address the complex relationships between masculinity, digitality and mental health (see, Swist and Collin forthcoming). In most public awareness and education campaigns there is little analysis of how gender (or class, culture, sexuality, religion, disability, etc.) expectations and relations exacerbate distress within advanced liberal societies (Fullagar 2017).

The English report Future in Mind (Department for Health 2015) recognised that many young people do not seek professional mental health services, existing services do not have adequate capacity to respond, and many are not designed in a youth centred way. Conventional anti-depressant medication is also not the first line of recommended treatment for young people in the United Kingdom. Hence there is growing interest in non-pharmacological interventions and digital approaches to mental health promotion and recovery for this age group. In February 2017, Public Health England published its digital strategy 'digital-first public health' aiming to "take a digital first approach to protecting and improving the nation's health and wellbeing, and reducing health inequalities". We see this play out in mental health through the seminal Future in Mind report that states how "we could also empower young people to self-care through increased availability of new quality assured apps and digital tools" (Department for Health 2015, p. 16). With claims that the growth in demand for mental healthcare is exceeding provision in the UK National Health Service (Hollis et al. 2015), the drive towards efficiency and cost reduction sets in motion the value of digital health as personalised solution to a broader crisis. Reflecting this policy orientation, according to their website, between 2009 and 2015 the National Institute of Mental Health (NIMH) "awarded 404 grants totaling 445 million for technology-enhanced mental health intervention grants. These grants were for studies of computer-based interventions designed to prevent or treat mental health disorders". While digital solutions certainly broaden the options for support, our concern within this paper lies with how pedagogic modes of address are co-implicated in shaping young personhood in highly normative ways—as successful, productive, help-seeking and self-caring individuals, or failing to cope and manage oneself.

Our approach brings into relation particular logics, materialities and affects in order to examine how learning and knowing about mental (ill) health recur and also disrupt medicalised, psychologised and normalised articulations of subjectivity. This is a posthuman approach that opens up possibilities for understanding assemblages of human and non-human relations and what embodied affective flows "do" and the capacities to "feel" (Fox 2015, p. 308). These assemblages and their complexities, particularly in relation to digital engagement, are often overlooked in favour of analyses of biomedicalisation and governance that, although well placed, do not contend with the less obvious way that digital technologies can be simultaneously disciplining and liberating for users (Hardon and Moyer 2014). Our analysis thus resists positioning young people as either learner-consumers of digital mental health 'expertise', or as learner-producers who represent their own 'authentic' knowledge that is somehow free from cultural mediation. Rather, we consider how digital mental health pedagogies are entangled in learning relations that co-implicate ostensible divides such as public and private lives, normal and abnormal subjectivities. This complicates assumptions about a unified subjectivity or agentic self-hood by emphasising the *relationality* between technology, its production and reception as pedagogical (Fullagar et al. 2017, this issue).

Within this paper we examine the *pedagogical modes of address* (Ellsworth 1997; Giroux 2004) that are produced through 'expert' discourses of mental health literacy for young people, including an initial exploration of examples of digital practices that are created by young people as they seek to publicly address mental ill health through social media platforms. It is beyond the scope of this paper to look at the learner-consumers' perspectives and experiences of digital mental health apps, although our framework would, we hope, lead to future analyse of such experiences. Instead, the focus of this

paper falls on the pedagogic address and more complex notion of pedagogy within these assemblages. This research is significant as it helps us map these complex relationships and how apps are part of an assemblage which organizes 'desire according to lack which commodities can fix, fill and perfect (Kenyway and Bullen 2008)' (Ringrose 2011, p. 601). In other words, they are deemed fix that which is lacking (within normalised psychology discourse) in a way that continues to feed the growth of therapeutic publics (something we will discuss later in the paper).

3. Digital Mental Health Practices

The following examples of expert pedagogies that we have selected for analysis focus on improving mental health literacy and optimising the self through self-management apps for tracking mood, gamified therapies and youth focused social marketing to increase help-seeking. Approaching these digital technologies within particular assemblages, we can ask what capacities are produced and performed through embodied connections, pedagogic practices and technological affordances? Rather than assume knowledge about mental health is a representational object that young people can rationally acquire through the use of various technologies, we consider how text, images and objects are co-implicated in the capacity to affect and be affected within digital media ecologies. For example, mood apps invite self-tracking practices via certain pedagogic modes of address and technological affordances that involve the performativity of self-judgement and changing habits that generate *intensities* (shame, pleasure, despair).

With advances in digital health technologies, we are now entering a new phase characterised by the use of big data, algorithmic analytics and artificial intelligence. The increase in automation raises a number of questions, not least about the kinds of experiences users will have at first entry point into healthcare systems. For example, the NHS recently announced plans to trial an artificially intelligent mobile health app with people in London. Complementing the NHS 111 phone based service, patients will be asked a series of questions in real time, and this system attempts to diagnose and make recommendations. A further feature of these apps is the capacity for data to be directly shared with health professionals who can classify symptoms, detect problems and offer relevant treatments (for example counseling or guidance). Such data can be either pushed by the user, or automated. Indeed, with rapid advances in the design of these technologies, the capacities for small, integrated, (bio)sensitive and wearable technology mean data on related practices of the body (e.g., whether we are engaging in enough exercise as part of our 'self-care') and information about 'signs' to monitor mental health (e.g., biosensors related to mood) can be continuously collected—producing biometric algorithms—and shared autonomously.

Within the UK there are a vast number of mental health/wellbeing apps aimed at the general public being sold within the commercial app marketplace. In recent years, questions have been raised about reliability and regulation of information, a focus that plagued early discourse on 'cyberspace and medicine' (see Miah and Rich 2008). The development of the NHS 'approved' apps library reflects this orientation of the digital health landscape as potentially unreliable, and a context where 'misinformation' could easily circulate. There are a range of data practices which draw upon these 'expert' pedagogies. While we do not have space to undertake a detailed analysis of each of these, it is worth outlining the range of these technological functions and applications before we introduce a more detailed analysis of selected apps. These include, but are not limited to, social media, gamified therapies, e-mental health literacy, virtual care apps and self-tracking apps. In recent years, there has been a significant growth in the development of virtual care apps that provide access to 'remote expertise'. In these spaces, users share personal data about their mood/symptoms with 'experts' and have the opportunity to interact in real time and promote particular initiatives.

Many of these mental health platforms claim to offer safe spaces to address the stigma of mental health concerns. For example Big white wall (www.bigwhitewall.com) promotes itself as "a safe online community of people who are anxious, down or not coping who support and help each other by sharing what's troubling them, guided by trained professionals". Christie (2013, p. 202) explores

Big White Wall as a "service that prioritises safety and clinical governance in an arena where many services are not regulated". Yet, as a site of learning about distress, its pedagogic focus can also reify a humanist notion of learning and rational subjectivity of governing oneself, and thus still contain an implicit message focused on individualised behaviour and choice. The promotional video for Big White Wall website invites people to take up expertise when it states, "take clinical tests to help you understand what is going on" "these will also help you track your programme over time", "take control, feel better . . . big white wall" (Big White Wall 2017). These pedagogic practices work to assemble what we call *therapeutic publics* by drawing together lay and professional expertise, the immediacy of multiple conversations, mobile devices, embodied thoughts and feelings. In their analysis of the Ellefriends forum, Tucker and Goodings (2017) speak of how the therapeutic sociality produced through digital forums generate complex "affective atmospheres" through "which caring for oneself becomes bound up in the ambiguities of caring for others".

3.1. Self-Tracking Mood and Wellbeing

Much like other health apps, mental health apps now have the capacity for self-tracking through which emotions come to be quantified. Mood is rated on Likert Scales as individuals monitor their "ups and downs" each week and record them on personalised dashboards. Research by Luxton et al. (2011) outlines the various uses of apps for popular smartphone platforms, including symptom monitoring and tracking treatment progress. Apps for mental health can be designed for "symptom" or "self-diagnosis" whereby app developers combine claims to medical expertise, in conjunction with appeals to algorithmic authority, to promote their apps to potential users (Jutel and Lupton 2015). The practice of self-assessment helps users evaluate and monitor 'symptoms' over time and this tracking can be used to characterise treatment outcomes (Luxton et al. 2011). Additionally, the apps themselves can be "programmed to respond to critical items in self-assessments to auto-detect significant distress and, when appropriate, offer one-touch contact to a support hotline" (Luxton et al. 2011, p. 506).

There is a growing body of work focusing on experiences and practices of users who self-track (Albrechtslund 2013; Lupton 2014, 2016; Mol 2009; Nafus and Sherman 2014; Ruckenstein 2014) and this research reveals how populations are encouraged to acquire information about, and data on, their bodies and subsequently undertake processes of self-management of their own health and lifestyle (Andreassen 2011; Mort et al. 2009). Lomborg and Frandsen (Lomborg and Frandsen 2016, p. 1016) conceptualise "self-tracking as a communicative phenomenon" along three dimensions: communication with the system, the self and social networks. This 'Quantified Self' orientation involves optimising learning through the material practices of "collecting, collating and analyzing minute data and providing feedback on how to better care for one's self" (Whitson 2013, p. 167). This may include, for instance, using the app to track and collate, on a daily basis, subjective mood ratings in electronic mood journals, the hours of sleep, anxiety levels, and medication. These digital devices deploy an expert mode of address to frame how users (read learners) receive information and advice on the basis of their own quantification, surveillance and their confessional documentation via the smartphone, tablet or computer. In other words, apps for mental health are shaped by *intentions* to develop mental health literacy by mobilising *expert content* and engaging users through an *affective* arrangement (Slaby et al. forthcoming) of play, pleasure, quantification and individualisation that rarely connects with broader understandings of mental ill health as a complex social issue.

More generally, the ability to quantify one's self invites us to become self-entrepreneurs who find pleasure in optimising our performance. The quantified self orientation is suggestive of a sort of Taylorism, or perhaps a reframing of the individual as an individual factory. This is a pleasurable Taylorism, given the appealing designs of apps and their increasing game like qualities, or gamification (Maturo and Setiffi 2016). Indeed, gamification can be seen as the use of game design elements in non-game contexts in order "to increase influence and encourage engagement and activity" (Luminea 2013, p. 13). Quantification and gamification goes hand in hand to generate

affective engagement in the digital realm: "Gamification practices, operating under the umbrella of play, foster a quantification of the self; collecting, collating and analyzing minute data and providing feedback on how to better care for one's self" (Whitson 2013, p. 167).

Linked to gamification and quantification, the syndromisation of mental illness has multiplied the number of disorders and increased the chances for an individual to receive a diagnosis as be positioned as a patient (Maturo 2012). Psychoanalytic discourse and its indeterminancy and complexity has been abandoned in place of more 'palatable' numbers for constructing a diagnosis (Horwitz and Wakefield 2009; Jutel and Lupton 2015). Therefore, subjective sensations are easily transformed—through the 'objectivity' of numbers and the codification and routinisation of algorithms—into clear-cut, 'reified', 'scientific' diagnosis (Desrosièrs 2011). What is missing from these practices is consideration of how such processes work through bodies, affective intensities and hence more digitally dispersed notions of agentic capacity. These are questions that move us beyond the medicalisation thesis.

With this in mind, we now want to spend a little more time focusing on one specific mental health app that is recommended by the UK National Health Service. Our starting points in this analysis involved asking different onto-epistemological questions related to the assemblage of affective relations and normative practices that constitute mental health learning and knowing.

3.2. Pacifica App: Daily Self-Tracking as Recommended by the NHS

There are a number of mental health apps that are recommended on the NHS Choices website. Entitled 'Apps for Mental Health' they are described as "a convenient way to look after your mental health and to tackle mental health problems like anxiety, stress and depression". Moreover, these apps have been "reviewed by mental health clinicians and are recommended on the basis of online app reviews, published feasibility studies and positive feedback from iCope [1] service users". These apps vary in their focus from Mindfulness and Relaxation (e.g., Stop, Breathe & Think; Headspace; Calm), to Stress and Anxiety (e.g., Stress & Anxiety Companion; Pacifica; Worry Management), Depression (e.g., Catch It) and Sleep (e.g., CBT-I Coach). Given the starting point for our analysis, one app in particular warrants more detailed consideration. Pacifica—Anxiety, Stress, & Depression Relief by Pacifica Labs Inc. is a free app available on Google Play and iTunes. The NHS identifies that this app is suitable for people experiencing mild to moderate stress, anxiety or low mood and compliments CBT or can be used for self-management during and after therapy.

After signing in, the user receives a welcome message, selects a calming ocean theme and then immediately receives a 'gentle' reminder that "Pacifica works best when you check-in regularly. Reminders help provide an accurate view of your mood and health over time. Those that enable reminders are more likely to keep working towards their goals". Mobile apps targeting wellbeing and mental health prompt users to record their "mood" and related "behaviours and activities" using different digital tools and scales, tracking for example how one feels. Pacifica can be used in three ways (1) rate your mood; (2) guided paths that allow the user to follow a series of audio lessons and activities created by psychologists and (3) for finding peer support. Of interest, users of Pacifica are encouraged to rate their mood by "keeping tabs on your mood and health using Pacifica's monitoring tools". With simple smiling/sad face icons users are invited to take a moment to rate their mood and to use this activity section of the app to "track your mood and discover trends in your life". Mood is conceptualised along a scale between great, very good, good, okay, not good, bad, awful and feelings can be added as well as hashtags incorporated. Based on responses, Pacifica highlights actions including psychologist recommended activities to help. For Ringrose and Harvey (2017,

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[1]　iCope offers a range of treatments for anxiety and depression. The treatments offered have been shown to be effective and are recommended by the National Institute of Health and Care Excellence (NICE). iCope are easy to access and accept referrals from GPs or other health professionals as well as self-referrals. Please see: http://icope.nhs.uk/about-icope/what-we-do/ for more information.

p. 453) smartphones and the apps that are downloaded onto them "cannot be treated like some add-on feature . . . Technology has created posthuman cyborgs, where the mobile phone is an actant (Latour 2005), and more like an additional limb or appendage, rather than separate object from the body (Haraway 1991)". The prostheticised body is always unfinished and compelled to improve (see Miah and Rich 2008); with the capacity for real time, continuous tracking, moral responsibility of self-care becomes a limitless enterprise, where every moment, interaction and affect comes to 'matter'. The pedagogic injunction to care for the self through self-tracking mood apps of this kind invites a continual affective investment in the mentally healthy self as an ongoing matter.

In recognising the link between the mind and body, Pacifica also tracks health habits that may be impacting upon mood, like exercise; sleep; caffeine levels; water intake; time spent outdoors; interaction with family, friends, pets, in relationships; hobbies; use of cannabis; tobacco; medication; meditation; hygiene and menstruation. The aim of this tracking is to identify patterns that can be adjusted with "No judgement, just insight". Pacifica includes a tool that invites users think about things differently. The 'Thoughts' tool facilitates the material process of thinking-feeling about the self as the object and subject of inquiry. There are many components in this process of rendering self-knowledge but the tool relies heavily on visualisation to help the user to "see the relationships between . . . experiences, thoughts and emotions . . . [and] the evidence for and against . . . thought". Trnka's analysis of the immediacy of digital technology for young people also reveals how "health apps heighten and intensify both self-focused and interpersonal dynamics of care" (Trnka 2016, p. 250).

The process of learning how to 'read' one's self involves a pedagogic process through which vision and affect are co-implicated in an 'expert' categorisation of thoughts, emotion and mood (variously registered as such within the app) by the 'lay' person. This involves a patterning of affective relations and articulation through commercialised 'expertise' that becomes normalised through digital technologies of self-improvement (take control, be happy, rationalise thoughts). They 'axiomatize' (Hickey-Moody and Malins 2006) flows of desire, organising particular subjects, reconfiguring particular identities/embodied relations and channeling particular desires and therapeutic investments around illness and wellness.

There is a need for further research that traces the 'social life' of this data (Hardon and Moyer 2014; Rich and Miah 2017), particularly in terms of quantification processes as it moves from the individual to assemble a set of relations with other human and nonhuman configurations. For example, we might ask what forms of dataveillance take place that are bound up with the hopeful affects through which others monitor the progress of mental health recovery? What are the practices and imaginaries through which the data is not only made, but shared with others, experienced, mobilized as part of a broader assemblage of hope through which recovery and happiness become imperatives? In the example above, the app includes a goal setting component that can be used to track self-care and activities. Goals are added to the user's own 'hope board' to provide motivation or an affective nudge in the 'right' direction. Furthermore, this information becomes lively as it is transformed into visual data that produces patterns and material relations that mediate learning about the 'hopeful' self who navigates the shifting parameters of normal and abnormal (Lupton 2017). Positioned as hopeful subjects with desires to improve their well-being users are urged to undertake specific, psychologist approved activities where data reports are generated "that can be sent to a family member, caregiver, or clinician" (Luxton et al. 2011, p. 506).

These apps invite users, as dutiful biocitizens, to not only recognise the risks (symptoms) and learn appropriate practices of self-care, but increasingly to also develop the necessary digital knowledge, capacity and literacy to be able to engage in digital sense making to interpret visualised patterns and data norms. Knowledge becomes crucial in digital health practices; knowledge of the appropriate goods (apps to be purchased from the market place), knowledge of their expert value, and knowledge of how to use them appropriately (monitoring, quanitification, interpretation, sharing of data).

The pedagogic modes of address articulated through these mental health technologies do not simply impart an abstract neoliberal ideology. Rather, they invite the subject to enfold and enact

particular forms of expertise—visualising their problems in terms of thoughts and feelings, monitoring and actively acquiring new insight—to adjust their lifestyles, embodied habits and goals in the pursuit of optimised 'normality'. Signs of 'abnormality' (overwhelming affects, complex biographies and social injustices) figure as problems to be overcome and pleasurably mastered through learning new forms of expertise. In these contexts good mental health and wellbeing become closely aligned with efficiency and productivity. Mental ill health is positioned as a burden and digital health technologies are offered as a 'fix' or source of truth. A number of these digital health technologies operate through the commodification of particular affects oriented towards the desire to become 'mentally well' whereby apps are positioned as solutions through which to optimize one's affective state (wellbeing/happiness). The growth in the marketization of e-therapies in this way "'reterritorializes or 'axiomatizes' desire, re-ordering flows through capitalist relations that exploit the connection between desire and lack (Holland 1998, p. 68)" (Ringrose 2011, p. 601). Such logic reflects what Ahmed (2010, p. 6) describes as the science of happiness, which "relies on a very specific model of subjectivity, where one knows how one feels, and where the distinction between good and bad feeling is secure, forming the basis of subject as well as social well-being". The marketing of these digital technologies thereby contribute to the promise of happiness; that active consumption and engagement with these technologies will return us to conditions of the imaginary (Storey 1996).

There is however, a curious absence of public debate about how 'official and expert' apps and digital technologies demand that we learn to diagnose and enact particular practices of self-care. The growing moral panic about youth mental health has been largely oriented around the use and negative effects/affects of social media as different platforms have been associated with causing or contributing to mental health problems (Hendry et al. 2017). Instagram, snapchat and Facebook are singled out as reinforcing social comparison around body image, sexting and popularity (see for example, Campbell 2017). Next we turn to consider how expert pedagogic modes of address are entangled with social media practices and relations of learning in ways that shape how young people articulate their distress as a private and public matter.

3.3. Social Media and the Growth of "Therapeutic Publics"

Recent scholarship across education, digital sociology, feminist and cultural studies has opened up explorations of how digital technologies afford opportunities for voicing experiences, diverse forms of activism and the creation of new (counter)publics (Dennis 2015; Keller 2015). In a very different formulation of mental health literacy, young people are actively positioned as producers of lay knowledge or "lived expertise" concerning their own distress, identification of mental health conditions and help-seeking practices. It is commonplace to see video testimonies and narrative accounts on blogs on the websites of youth mental health charities (see for example, Young Minds UK) and there is a proliferation of Tumblr and You Tube blogs and vlogs, Instagram stories, Pinterest "inspiration" boards and hashtag activism. These platforms circulate personal accounts via multiple images and texts relating to various forms of depression, anxiety, disordered eating and body disaffection. In this way such digital practices participate in the creation of new *affective arrangements* as they offer opportunities to share experiences, generate support in anonymous and public ways, offer help, advice to others with daily struggles and raise awareness to combat stigma and discrimination (Slaby et al. forthcoming). This Deleuzian term moves us beyond an individualized conceptualization of emotion by emphasising the relations of affect through which individuals become connected through sociomaterial objects and practices. Slaby et al. (forthcoming) state that "an affective arrangement is an analytical tool to flesh out how affect unfolds dynamically and often unpredictably in a relational setting, while it is yet framed and modulated in recurring and structured ways". These spaces and intra-actions between individuals, public audiences, technologies, images all contribute to the materiality of intense affects that are commonly figured as explorations of 'personal' distress (see for example, Keiles's visual essay Depressiongrams (Keiles 2015) and Dobson's on pain memes (Dobson 2015)). Importantly, they are performative sites through which young people's 'lived experience' is not simply

communicated, but rather is mediated and materialised through a techno-affective entanglement where learning or self-knowledge is articulated in relation to various *therapeutic publics*. We use this term to suggest the impossibility of separating out 'lay experience' from certain 'expert' modes of address; personal accounts of distress are articulated or *arranged* through connections with biomedical, psychological—neuropedagogies that locate problems in the brain/mind—social biographical and less often political discourses of marginality or precarity.

Karen Barad's work is useful here for reconceptualising how these sites of public pedagogy create digital spaces of learning-knowing through ongoing intra-actions of private-public, expert-lay, affective-technological relations (Barad 2007). Any clear cut notion of an intentional pedagogue directing understanding of mental ill health is unsettled by the interplay of private and public lives where young people actively participate in taking up, and at times also questioning, normalised understandings of personalised problems and therapeutic solutions. Similarly, this also complicates assumptions about pedagogical subjects given that these examples include users who "embark on both formal (institutionalized) and informal acts of learning" (Sandlin and McLaren 2010, p. 10) through these intra-actions. Young people are not passive learners, but actively negotiate and mediate their own meanings and understandings. Agency in this sense is not something which is located in either the pedagogue or learner, but distributed through different pedagogical points of connection that mobilise learning through different affects.

McCosker (2017) has identified in his analysis of how social media platforms create particular digital affordances, how distress is rendered visible as a certain kind of problem associated with contemporary neoliberal personhood. There are also commercial imperatives at work shaping the politics of therapeutic publics in ways that are visible and invisible to users (see also, Barassi 2015) through pedagogies of consumption (Sandlin and McLaren 2010). Corporate entities (including for profit and charities) engage in a range of digital practices from the commercial harvesting of data (advertising, insurance industry, pharmaceutical companies), various fundraising tactics that often involve the "benevolent othering" of individuals with mental ill health (see, Grey 2017; Phillipson 2017), as well as active participation in the digital articulation of emotions and mental health issues (such as Facebook's monitoring and targeting of depression related services, see (Levin 2017)). As such, this reflects the observation made by Martens (2010, p. 180) that it is difficult to "demarcate medical-health instructions from those deriving from consumer culture, as non-commerical and commercial pedagogic practices are apparently merging in diverse ways".

Critical scholarship has begun to identify how these material-discursive practices shape youth voices and experiences in terms of the pervasiveness of cultural norms, narratives and tropes of illness and recovery (Hendry et al. 2017). For example, Holmes (2016) explores how recovery oriented narratives and images on YouTube are shaped by the performativity of personal testimony that generates particular *intensities* binding relations of feeling-knowing-doing 'mental health'. Such confessional modes of performing young personhood are highly normalised within therapeutic cultures that position emotional distress as a problem to be addressed through successful self-management strategies that deploy certain forms of therapeutic expertise. Holmes (2016) identifies how young women actively deployed biomedical repertoires to articulate their experience of recovering from anorexia as a disease (see also, (Lamarre and Rice 2017) in this issue). Diagnostic categories can work to confer legitimacy and self-certainty (I am not to blame I have an illness) in the face of overwhelming affects, and demand individualised responsibility in relation to regulatory diagnostic requirements of the State when it comes to accessing mental health services (and income and other support). Yet, the voicing of young people's uncertainty, complex experiences and recurrence of emotional distress through various social media practices serves to make visible the precarious promise of medical and psy authority to fix 'disordered' individuals and the stigmatising responses that continue to remind young people of a collective 'abnormality' (as mental illness).

With limited provision of mental health support in the context of a diagnostic culture, it is not surprising that therapeutic publics produced through social media practices offer a desirable digital

space for (and by) young people to share and communicate their experiences of distress and recovery. The affective intensities that are often expressed through narratives of hope, restitution and recovery offer a powerful affective and collective means of countering the individualised shame associated with mental illness stigma. However, the experiences recounted by young people are often highly mediated by the discursive repertoires of biomedicine, cognitive behavior therapy and other personalised modes of address (with little framing of the personal as political). The ethical and political concerns that arise here relate to how affective arrangements work to normalise therapeutic self-care practices through public pedagogies that individualise distress. There are a number of ethical issues that arise here, such as the replacement of face to face support services with digital technologies with a lack of funding, or the intensification of personal failure that can be produced by the inability of apps and other platforms to 'solve' the complexity of embodied distress. The effects of such materialisations are often difficult to critically question when the affective investments of personhood in successful self-optimisation commonly obscure the political and cultural formation of a range of inequalities and contexts that shape how young people learn about distress.

4. Conclusions

Within the emerging literature on mental health and social media, McCosker (2017) has begun to map the "possibilities and limitations embedded in social platforms and social imaging apps for rendering common forms of mental illness, such as depression and anxiety disorders, visible". In this article, we have sought to extend existing research through an understanding of the public pedagogies, or formal and informal pedagogical sites for learning about youth mental (ill) health, in the digital age, as affective arrangements. The mental health pedagogies within the digital context of education and promotion that we have examined do not involve a simple process of transmitting 'norms' about health, wellbeing and successful personhood from society to the individual. To conceptualise learning in this way would be to reify a humanist, behavioural model of learning through which knowledge is simply transmitted between self and society as somehow separate entities. The examples that we have explored through our analysis of the NHS app and the range of studies that have been published, reveal how the borders of the 'norm' can be 'ruptured' to reveal the micropolitics of digital mental health (Renold and Ringrose 2008). Broad notions of public pedagogy (for a critique see (Savage 2010)) can therefore obfuscate these complex pedagogical processes, where multiple forces intersect, contradictions exist, and gaps or the 'in-between' (Rice 2015) might emerge.

In the final part of this article we signposted a range of social media examples that point to the sociomaterial practices through which young people articulate distress and the dilemmas of contemporary selfhood in relation to a range of therapeutic publics (narratives of self, illness and recovery, visual images and video). Further research is needed to examine how these assemblages reterritorialise mental health through biomedical and psy expertise, as well as disrupt and open up other pedagogies that engage with social conditions of personal distress as political. Without the circulation and visibility of sociocultural explanations, narratives and images there is little problematisation of how distress that is felt as intensely personal comes to be configured through individualised logics of health/illness, normality/abnormality, success/failure. The danger lies with the pedagogical promise that expert knowledge can return the disordered subject to 'normality' or help them manage living with a disorder as an essentialised aspect of identity. Within a context of stretched public resources for therapeutic support, the affective dynamics that individualise responsibility for recovery and self-management can work to intensify young people's feelings of despair and failure. These behavioural techniques enact a "essential premise of liberalism ... not to impose external control but to trigger internal self control" (Peeters and Schuilenburg 2017, p. 140). Thus, the affective work and action which is required in efforts to be 'happy' and achieve 'normality' commonly evokes a particular form of introspection and surveillance.

These are issues that various service user, survivor and mad identified movements (like queer, mad signifies positive difference in the non-normative) have long argued against in their various

articulations of a politics of mental health that acknowledges the sociocultural context of distress (see (Blackman 2007) on the hearing voices movement). Within the 'expert' digital terrain of mental health promotion there is little space to critique the pressures of performing 'normality' and how such pressures materialise through various experiences of distress (as cumulative or acute experiences of childhood and family violence, racism, sexism, poverty, harassment and pressures related to education, employment and social identity). Throughout this paper, we have emphasized the need for more nuanced understandings of the pedagogies and learning involved in the process of becoming a particular kind of subject; in the case of mental health and digital apps, one who learns and responds to the imperative to enact self-care and digital mental health literacy. Further research is needed to understand the affective work undertaken to meet the imperatives promoted through these modes of address. We must take seriously these digital technologies as sites of learning about mental health and associated imperatives of recovery and happiness. The examination of the pedagogic address of these mental health apps as sites of learning, also reflects a broader point concerning the need for more nuanced, theoretical articulations of pedagogy, as advocated by Burdick et al. (2014) in their efforts towards 'problematising public pedagogy'. In order to do so, we argue for advancing a posthumanist line of inquiry focused on the *relationality* of young people's experiences of learning about mental health, digital health technologies and how they come to enact subjectivities through affective arrangements. With the emergence of these new lines of inquiry there have also been critiques of post-humanism as emphasising technology 'over' human experience, using complex vocabulary and failing to critically engage with questions of power as they play out through differences and intersections of class, gender, sexuality, ethnicity etc. (see (Geerts and van der Tuin 2013), on post-humanism and intersectionality debates). These continue to be important issues to address as the fields of critical mental health studies, public pedagogy and digital sociology converge around the problematic of youth mental health and illness.

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