

FROM REFLECTIVE MODELS TOWARDS COLLABORATIVE AUTOETHNOGRAPHY: HOW CAN SOCIAL MEDIA BE USED AS A PEDAGOGIC TOOL FOR SECONDARY STUDENT TEACHERS?

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Abstract

This paper evaluates the findings of a small-scale research project into how applying Gibbs' (1988) reflective model can help trainee teachers examine their use of social media platforms as pedagogic tools. This model is frequently deployed as one of the preferred models of reflective practice among public sector professionals, yet its limitations rendered the model a departure. Indeed, trainee and newly qualified teachers are sometimes subject to superficial ideas on reflective practice (Hebert 2015; Pratt and Tynan, 2019). The broader aims of this paper are to explore the value and limitations of Pinterest - a social media platform - for use in a classroom and in the context of the literature. A supplementary aim is to contextualise Pinterest in the world of educational technologies (or edtech).

The study used mixed methods of data collection and deployed thematic analysis as a methodology for analysing the qualitative data. Thematic analysis helped the researchers identify and analyse semantic and latent codes (Braun and Clarke, 2019). Initial findings reveal a disconnect between trainee teachers' social media use in schools. The taxonomies, definitions of social media vis-a-vis edtech are still problematic and contested semantically, ontologically and ideologically. Further limitations of the study were its small sample size, some contradictory or redundant data and the paucity of peer reviewed or policy literature specific to social media and Secondary education. This paper proposes collaborative autoethnographies as a valid method of exploring the ontological and epistemological questions arising from qualitative inquiry. The likely impact of this study is to contribute to emerging debates about personalised and remote learning post-Covid-19.

Keywords: social media, autoethnography, teacher education, teachers, pgce, Pinterest, reflection, reflective models, ethnography, edtech, technology, teaching

INTRODUCTION

Pinterest (derived from 'pin' and 'interest') is an online pinboard on which users are invited to pin and repin images and videos, without risking intellectual property violations (Atherton, 2018). This study paper seeks more specific definitions and applications of the term, 'social media'. To do this, the paper focuses on Pinterest. Though Pinterest is generally placed in the same category of other social media platforms, this paper examines its uses as a social search engine in the context of Secondary School teaching and social media. The paper explores the following research questions:

- **What are the implications of using reflection models to help student teachers understand their own social media use?**
- **What are the specific definitions and applications of the term, 'social media'?**
- **How might this study develop the work on autoethnography in teacher education in Atherton (2020b) and Atherton (2022) by proposing that this study is the start of a collaborative autoethnography (Roy and Uekusa,**

2020)?

This paper develops data and literature from Atherton (2020) and Atherton (2022). Atherton (2020) deploys autoethnography and grounded theory as methodologies and social media analytics as data. Atherton (2022) also uses autoethnography but analyses visual narratology and social media content using thematic analysis. This paper, therefore, fits into a wider project in which the researcher is examining the place of educational technologies in teacher education.

This paper's focus is on the use of Pinterest with a cohort of PGDE student teachers. The initial data was gathered in 2019. The work adheres to the principles of action research (BERA, 2011) and was supported by a universities in the north of England.

Since the commencement of this study, the impact of Covid-19 has limited the opportunities available to social science researchers and presented what Roy and Uekusa (2020) term as, 'scholarly challenges' (2020, p384) in terms of access to participants. The original data for this study had gone no further than remote data collection, with a small sample of face-to-face questionnaires - all pre-Covid-19. The next logical step was to develop this study in a way that offers potential value to those involved in initial teacher education (ITE) and also to other scholars and students who seek a way to contribute work that has depth, in the absence of opportunities for traditional qualitative research methods (Roy and Uekusa, 2020).

One of the broader aims of this paper will be to try to bridge a chasm between instrumentalist views of educational technology (Lanclos, 2016; Selwyn, 2014; Bayne, 2015) and the realities of the end user, which may help develop the proposal that rigorous research can offer a way to bridge the chasm between the realities of social media use in a classroom and social media outside the education space, in which there are some problematical terminology and contested ideas (Babbie, 2014; Clarke and Braun, 2019; Atherton, 2022).

The literature since the 2010s has sometimes wrestled with phraseology, or how to name technology in education. Recent attempts to do this have come up with terms like, Technology Enhanced Learning (TEL), eLearning, instructional technology and edtech. Technology's fast-changing paradigms tend to be defined and framed in language that is assumed to be ideologically neutral (Bayne, 2015). If technology 'enhances' learning, might this assume that the education system needs only its teaching and learning augmented by hardware and software (Kirkwood and Price, 2014; Luckin et al, 2018; Hamilton and Friesen, 2013; Bayne, 2015)? Similarly, if the act of definition is often performative and ideologically loaded, how can the literature demonstrate genuine criticality and help bring about social change (Bayne, 2015; Selwyn, 2020; Clark, 2020)?

At the heart of this problem, literature post-2015 explores a tendency for the language of technology in education to be semantically reductionist and therefore conservative in essence (Bayne, 2015). As a consequence, some of the literature on technology in education fails to view technology as a site for semantic struggle. In that sense, the literature does not sufficiently address issues of inclusivity, social justice and the search for alternative paradigms and new theoretical frameworks (Bayne, 2015; Atherton, 2020b; Selwyn, 2020). An example of these emerging frameworks is posthumanism (Sidebottom, 2019; Braidotti, 2016) and critical posthumanism, in which humans are enmeshed in an ideologically complex ecosystem of social learning and interactions with technology (Bayne, 2015). This theme of ecology is also developed by Vetter's notion of convivial technology (2017)

as an alternative theoretical framework for discussing technology. This framework challenges essentialist ideas and is rooted in sustainability, social responsibility and 'degrowth' (Vetter, 2017 pp1-9). Despite this, there is yet to be a sense of coherence regarding theoretical frameworks and the topic of edtech, let alone social media.

Theoretical frameworks and digital literacies

In some ways, any debates about digital literacy are indebted to Freire's (1970) notion of critical pedagogy, which strives for an end to political inequalities. Once this notion is transposed onto the post-2010 literature that could be applied to social media and pedagogy, there are persistent themes of inclusion and equitability. These themes of inclusion and equitability are still framed within theoretical concepts like technological determinism and instrumentalism (Atherton, 2019a; Selwyn, 2020; Clark, 2020). In terms of appropriate theoretical frameworks for this study the fluid nature of edtech may suggest multiple, even *promiscuous* frameworks, all of which are nuanced and informed by policy literature and narrative reviews (Bayne, 2015 p8). By way of a comparison, Bayne (2015) critiques essentialism as a way of explaining how the very presence of technology transforms pedagogy and instrumentalism's concept of technology as a neutral enhancer of learning (Bayne, 2015. P9; Hamilton and Friesen, 2015). The Findings section will look at the gaps and inconsistencies in the dataset on Pinterest, hence the remainder of this section will narrow the focus by reviewing the edtech literature specifically about social media and learning.

What is/are social media?

The term social *media* points to the more widespread sharing of multimedia content and refined functionality (Atherton, 2018a; Jones, Scanlon and Charitonos, 2018, cited in Luckin, 2018). Facebook, Twitter, Pinterest, Instagram, Snapchat, Tik Tok and so on are all social media platforms, that is spaces for global communication and online sharing of user-generated or curated content (Greenhow and Lewin, 2016; Atherton, 2018a; Brughera et al, 2019). There have been studies that have discussed taxonomies - or categories - of edtech but these have said little of social media (Atherton, 2019; Nor Al-Deen; 2012, Wankel, 2015; Rosen, 2012). At the time of writing, research into social media has seen the generation of voluminous data but the overall findings lack coherence (Brughera et al, 2019). Indeed, some studies have indicated that a reason for the weak boundaries of social media classification is not just their hybrid or convergent nature but linked to who is doing the defining. As a result, it is hard to create a comprehensive review of the literature about social media (Ngai, Tao and Moon, 2015). In many cases, these classifications are determined and refracted by the users themselves, which helps form *folksonomies*, rather than taxonomies (Jones, 2012). The organic, fluid nature of such a knowledge base frequently resides in blogs and on social media, as opposed to peer reviewed journals. Other barriers to clear classification are derived from the hybrid nature of the platforms. For example, Facebook was originally termed as a social network; LinkedIn still resides in that category (Atherton, 2018a). Subsequently, does social media belong in a debate about edtech?

Social media and pedagogy

Some of the recent American literature concerns social media and pedagogy. Examples of these are Krutka et al (2017), who used student survey data to examine how student teachers can teach social responsibility and Carpenter's (2019) study

into educators' experiences of SPAM on social media. Similar to this is Greenhow and Lewin (2016), who looked at how social media can act as a bridge between formal and informal learning. As educators and learners started to use collaborative tools, such as 'wikis' and alternative games, a new series of challenges was identified by Jenkins et al (2009): did learners have the skills to participate constructively and successfully? Furthermore, how far would academics embrace not just new technologies but new pedagogies? Facebook, along with other technology giants like Microsoft, Google and Apple, are keen to tap into the growing edtech market. From 2016, one of the focuses of Facebook's attention was the Learning Management System Market (LMS) (Boorstin, 2017). Facebook built the software for 'Personal Learning Plans' for *Summit* schools in the USA (Cox, 2016). These LMS's are built to monitor pupils' cognitive skills and focus areas in specific subjects. One of the by-products of this policy may be that Facebook can be perceived as ethical and contributing to a better society (Atherton, 2018a). This could be a judicious tactic in light of the negative publicity that major corporations sometimes attract and the power they possess (Selwyn, 2020; Atherton, 2018a). Social media platforms are sometimes explored through case studies that interrogate their potential to develop students' participation in society. Gleason (2016, cited in Greenhow, Sonnevend and Agur, 2016) conclude that Facebook can help teachers' innovation and encourage a more inclusive, participatory educational culture. In counterpoint to these claims of democratisation, some of the literature recognises a hostility to the use of social media in schools, despite the pedagogic potential (Atherton, 2018a; 2019a; Greenhow and Lewin, 2016).

There is a notable paucity of literature about social media and pedagogy, especially in terms of the British context and Secondary Initial Teacher Education (I.T.E). The discussion around social media in education is in its infancy, both in terms of the range of literature and the application sharpness of focus; research into Pinterest is rare but there are some studies that focus on Pinterest (Pittard, 2016; Braghera et al, 2019; Atherton, 2020b, 2022). The next section will delineate the research design.

METHODOLOGY

The research design can be summarised in the following ways: Online questionnaires on Surveyhero.com about using Pinterest for learning. These questions were framed by the stages of Gibbs' (1988) reflective cycle (see Fig. A):

Fig A - Gibbs' reflective cycle and questions posed

STAGE OF GIBBS' REFLECTIVE CYCLE	QUESTIONS POSED TO THE SAMPLE
1. DESCRIPTION	1. WHAT HAPPENED WHEN YOU USED PINTEREST TO HELP YOU LEARN?
2. FEELINGS	2. WHAT WAS GOOD AND BAD ABOUT USING PINTEREST FOR LEARNING?
3. EVALUATION	3. WHAT CAN YOU MAKE OF THIS SITUATION (I.E. WHAT DOES IT REVEAL TO YOU ABOUT THE BROADER CONTEXT OF LEARNING THROUGH SOCIAL MEDIA)?

4. ANALYSIS	4. WHAT MIGHT HAVE BEEN AN ALTERNATIVE TO YOUR EXPERIENCE OF PINTEREST FOR LEARNING (E.G., WHY NOT JUST USE GOOGLE?)
5. CONCLUSION	5. IF YOU HAVE AN OPPORTUNITY TO USE PINTEREST FOR LEARNING AGAIN, WHAT MIGHT YOU DO DIFFERENTLY?
6. ACTION PLAN	6. WILL YOU USE SOCIAL MEDIA IN YOUR TEACHING?

The online questionnaire depicted in Fig A was followed by face-to-face interviews, then proposals for development into a collaborative autoethnographic study. The study necessitated mixed methods, which necessarily combine both quantitative and qualitative data collection (Ponce and Maldonado, 2014; Cresswell, 2009). It may be beneficial to outline some of the benefits and limitations of this approach. There are numerous systematic reviews on this matter that fail to reach firm or empirical conclusions on mixed methods (Cresswell, 2009; Ponce and Maldonado, 2014). Furthermore, the definitions of mixed methods are in a state of flux (Cresswell, 2009).

The chief challenges of the research design of this paper would be to combine the lived experiences of researcher and participants with the necessary gravitas and dimensionality of empirical research (Greene, 2008; Rorty, 1992, cited in Gruzd et al, 2016). The response to this challenge will be to place the focus on the language of individuals as qualitative data which will provide a testimony to lived experiences (Rorty, 1992, cited in Gruzd et al, 2016). At the same time, the study needed to be 'explicit and replicable' (Brughera, 2019 p2).

RESULTS

The use of Gibbs (1988) led to meaningful reflection but only after respondents had answered the initial questions. Hence, this section summarises answers to questions 4, 5 and 6 from **Fig. A**).

Fig B, responses to Question 4 - What can you make of this situation?

<p>PEDAGOGY</p> <ul style="list-style-type: none"> • INDIVIDUAL TEACHERS HAVE UNIQUE TEACHING STYLES. • THE SITUATION HAS DEMONSTRATED THE IMPORTANCE OF SOCIAL MEDIA-BASED PEDAGOGY TO ME. • USING PINTEREST DOES NOT REVEAL HOW SOCIAL MEDIA CAN BE USED IN THE CLASSROOM ITSELF. • TAUGHT ME THAT THERE IS NO BOUNDARIES WHEN USING RESOURCES FOR TEACHING. <p>ENCOURAGING COLLABORATION</p> <ul style="list-style-type: none"> • SOCIAL MEDIA IS BASED ON THE IDEA OF SHARING IDEAS, ARTICLES, MEDIA, AND OTHER THINGS. THIS ALLOWS STUDENTS IN AN ANDRAGOGICAL CONTEXT TO SHARE PRIOR KNOWLEDGE AND EXPERIENCE IN A COLLABORATIVE ENVIRONMENT, SHOULD THE FACILITATOR ALLOW FOR THIS. • IT IS A VAST NETWORK OF RESOURCES AND I FEEL I WILL FIND ANYTHING ON THERE <p>DEVELOPING TEACHERS' CREATIVITY</p> <ul style="list-style-type: none"> • THAT THERE ARE OPPORTUNITIES TO LEARN USING SOCIAL MEDIA. YOU JUST HAVE TO BE CREATIVE IN COMING WITH IDEAS TO IMPLEMENT IT. • SOCIAL MEDIA CAN MAKE A REAL DIFFERENCE TO BROADEN THE LANDSCAPE FOR EDUCATION AND LEARNING. <p>PROMOTING INCLUSIVITY AND PARTICIPATION</p> <ul style="list-style-type: none"> • I THINK IT'S IMPORTANT TO MOVE ON WITH THE TIMES AND THE USE OF SOCIAL MEDIA IS A VERY BIG PART OF YOUNG PEOPLE'S LIVES. USING SOCIAL MEDIA CAN MAKE THE STUDENT FEEL MORE COMFORTABLE AND ENGAGED AS THEY'RE WORKING WITH A FAMILIAR PLATFORM. • ENCOURAGE PEOPLE TO GET INVOLVED A BIT MORE - THERE IS A LOT OF TECHNOLOGY OUT THERE THAT IS DESIGNED TO INTEREST AND ENGAGE WITH AGE SPECIFIC GROUPS. • LEARNING CAN BE DONE IN MANY WAYS, USING PINTEREST IS INFORMAL AND MAY ENGAGE THE STUDENTS OF A CERTAIN AGE RANGE • IT CAN HELP WHEN DELIVERING A PLANNED LESSON TO THE STUDENTS IN THE CLASSROOM BECAUSE IT ALLOWS THEM TO BE INTERACTIVE AND PARTICIPATE IN THE LESSON TOGETHER. • EVERY STUDENT CAN BE INVOLVED IN IT AND IN SOME RESPECTS THEY WILL BE MORE EXPERIENCED THAN
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YOU. USEFUL DEVICE FOR ENSURING DIFFERENTIATION IN THAT YOU COULD PROVIDE STEPS TO AID LEARNERS OR YOU COULD SET EXTENSION TASKS FOR HIGHER ABILITY.

- I THINK THAT SOCIAL MEDIA WORKS WELL TO FACILITATE LEARNING OUTSIDE OF THE LEARNING ENVIRONMENT, ENCOURAGING STUDENTS TO REMAIN ENGAGED WITH LEARNING EVEN WHEN NOT IN THE SPECIFIC LESSON AND IT CREATES AN INFORMAL PLATFORM THAT THEY ARE FAMILIAR WITH TO LEARN AND ENGAGE WITH IDEAS

REINFORCING SOCIAL EXCLUSION

- SOCIAL MEDIA ISN'T PARTICULARLY INCLUSIVE - IT WILL APPEAL TO SOME MORE THAN OTHERS
- I AM STILL WARY OF DOING SO AS MANY OF MY STUDENTS DON'T HAVE PHONES.
- SOCIAL MEDIA CAN BE AN ENGAGING WAY TO TEACH, BUT THERE ARE LIMITS-IS TECHNOLOGY READILY AVAILABLE TO ALL STUDENTS? DO THEY ALL HAVE INTERNET?

BARRIERS TO USING SOCIAL MEDIA

- IT CAN BE AN EFFECTIVE TOOL BUT I THINK IT IS SUBJECT DEPENDENT; IN SOME AREAS THERE'S NO GETTING AROUND TEACHING TO THE TEST
- NEED TO CONTROL STUDENTS
- IT WOULD BE GOOD TO USE A MASTER COMPUTER TO KEEP AN EYE ON STUDENTS' SCREENS
- IF PUPILS WERE TO USE SOCIAL MEDIA FOR THEIR LEARNING THEY MAY NEED RIGID INSTRUCTIONS TO BE ABLE TO LOCATE SPECIFIC THINGS TO ENABLE THEM TO EFFECTIVELY LEARN

Question 5 . What might have been an alternative to your experience of Pinterest for learning (e.g., why not just use Google?)

Thematic analysis - Google vs Pinterest

The raw data was rendered more meaningful by selecting words and phrases. Repetition and inaccurate data were excluded. Again, there was a risk of subjectivity and researcher bias here.

The overarching theme of the responses to this question was that respondents feel that Google generates unfocused search results in terms of their relevance to pupils' learning. By contrast, the sample felt that Pinterest facilitates more targeted and visually appealing results that can improve teachers' autonomy and creativity. The results also reveal that the student teachers had been exploring other social media platforms like Instagram - a photo sharing site - and micro blogging site Tumblr. One respondent expressed a preference for Pecha Kucha, a Japanese social presentation and storytelling platform.

Question 6: If you have an opportunity to use Pinterest for learning again, what might you do differently?

Fig C. Summary of findings for Question 6

- THE IMPORTANCE OF LEARNING GOALS AND SPECIFIC SEARCH TERMS
- ASK PUPILS TO PUT THEIR PHONES ON DO NOT DISTURB OR SET THE LESSON IN A ICT ROOM
- THE IMPORTANCE OF SUBCATEGORIES FOR ORGANISING MATERIALS.
- RESEARCH PINTEREST'S FUNCTIONALITY BEFOREHAND
- ADD FILTERS, SEARCH MORE THOROUGHLY
- HAVE A COMPUTER THAT THE TEACHER CHECKS ON TO KEEP EVERYONE ON TASK AND TO PREVENT PROCRASTINATION.
- USE OF A SHARED, EDUCATIONAL PINTEREST ACCOUNT.
- CHOOSE MORE SPECIFIC SEARCH TERMS.
- SPECIFIC BOARDS TO LOOK AT OR SEARCH FOR RATHER THAN A GENERAL SEARCH.
- AN INITIAL TUTORIAL LESSON TO FAMILIARISE THEM WITH IT AND DISCUSS PROS AND CONS
- USEFUL FOR LESSON PLANNING, NOT IN THE CLASSROOM

The findings here were narrowed down into a set of bullet points to reflect the most prominent emerging themes. The extent to which Gibbs helped lead participants to their own deepening digital literacies will be explored in the Discussion section. These answers demonstrate a much closer engagement with some of the practicalities with using social media in a classroom. Examples of these are:

- The need for ground rules
- Learning goals and other aspects of the structure of lessons
- Search skills and other examples of digital literacy
- The need for preliminary research

CONCLUSIONS

In terms of the initial research questions, the data and literature have helped direct the initial research questions in the following ways:

- The use of a reflection model was intended to be a way of framing the broader debate. This has been a success insofar as it has revealed some unexpected results and precipitated some future, which will be discussed in the Suggestions for Further Work section.
- The taxonomies, definitions of social media vis a vis edtech are still problematic and contested semantically, ontologically and ideologically. There needs to be ongoing practitioner research into specific social platforms, preferably in the context of Secondary Initial Teacher Education.
- The next papers on collaborative autoethnography will be outlined in the Suggestions for Further Work section.

Furthermore, it could be argued that the data reveals something else about the student teachers' exclusion from, hostility towards or ignorance of how to use Pinterest in their teaching. A great deal of the data was reflecting on the school or college-wide rules on and feelings towards social media in lessons. Perhaps this ideological neutrality is not extended towards social platforms like Pinterest (Bayne, 2020, Selwyn, 2020; Atherton, 2022).

Strengths, limitations and suggestions for further research

The project began by positioning the research in the context of well-established reflection models. It could be argued that there could have been scope to return to Gibbs (1988), in order to ask the participants how successful this structure was in enabling student teachers to reflect. Indeed, the essence of many reflection models is the need for them to be cyclical. The study did not do this, in light of the lockdown from March 2020. Furthermore, Gibbs (1988) was employed merely as a framework enabling participants to discuss contentious issues in a more objective manner. Related research project has embraced autoethnography and podcasting. It seems, therefore, that using Gibbs (1988) as a bridge between student teachers' reflections and individual stories could be a logical progression.

Further research could attempt to define these specific literacies, though such research is likely to be ephemeral in nature, as such knowledge bases are characterised by their fluidity (Siemens, 2005; Atherton, 2018). In terms of research methods for further research, there is evidence that the mixed methods approach could benefit from incorporating a greater proportion of narrative writing, to amplify the complementary empirical data (#Greene, 2008; Cresswell, 2009; Sidebottom, 2019). This paper concludes that, despite the potential for further study, the researcher would still need to exercise caution. The pandemic has clearly increased a feeling of isolation among student teachers and teacher educators. That said, the ongoing lockdowns have provided opportunities for researchers to develop their constructivist or interactionist theoretical perspectives (Roy and Uekusa, 2020), This study builds on the use of reflexivity through autoethnography in Atherton (2020c) and Atherton (2021). As the original data on Pinterest and social media encourages self-reflection, this study takes this further. In doing so, the study proposes the value of collaborative autoethnography (Roy and Uekusa, 2020). This methodology will be developed in a future paper on podcasting and collaborative autoethnography during Covid-19.

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