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CRITICAL TECHNOLOGY ENHANCED LEARNING, ART AND DESIGN, AND HIGHER EDUCATION

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Abstract

The focus of this paper is the challenges of participatory research with young people in Technology Enhanced Learning (TEL) settings in schools and universities. We articulate two concerns: firstly, with developing the role of creative practices and virtual communities in helping young people to find a voice and become participatory researchers of their own lived experiences; secondly with the importance of TEL researchers working together in research communities and joint enterprises, focused on their shared interests and concerns. Young people's use and understanding of the Internet is widely under-researched. We argue that researching alongside young people in TEL settings presents researchers with conceptual, methodological and theoretical challenges. The realities of research processes and young people's lived experiences with TEL do not always sit together easily.

Keywords: Art and Design Education practice, Higher Education, Cultural Historical Activity Theory (CHAT), virtual worlds

1   INTRODUCTION

In this paper, we have tried to extend our argument beyond reflexively considering theory in our own work, to the use of theory as part of the intellectual 'self-defence toolkit' that researchers and practitioners in the global TEL community need to consider. Theory, and its relationships with practice, can be complex. Yet theory can offer us the language, history, scope and power that we need to be aware of both our own interests and those of others who are working with us. Our work arose from our concern to provide evidence that our Virtual Research Community (VRC) was helping young people pursue their own research agendas and find their research "voices", and was effective in serving young people's interests as well as our own. This concern was around two research agendas and two sets of interests – that of the project participants, and our own as the funded researchers. We focused on the processes in which we became engaged as we tried to ensure that our agenda did not dominate the VRC – leading to the emergence of some key themes.

These themes include the need for more empirical evidence of the realities of young people's lives with TEL. Another was the role of theory in our own work, and the need for re-theorisation of the subjectivities of young people in TEL settings. We explored how Activity Theory (CHAT) might assist in the methodological and analytical work of researching young people's creativity in a VRC. We specifically considered CHAT, but our argument has broader application to other theoretical frameworks.

We also focused on the significance of learning spaces that can support communities. They are part of the intellectual toolkit that can be used resist to subordination of community ideas and work to particular interests. Resistance to the large-scale industrialisation of TEL, and its ideologies, seems to

us to be a key issue, including the potential for surveillance and control that is contained in the whole learning analytics movement in which so many TEL researchers are involved. We are also mindful of the enormous potential of creative practices drawn from Art and Design to assist us in this work.

Our aim in this work is to support a theoretically informed and open TEL community of critical researchers. We hope that that these reflections will, even if in some small ways, nourish and assist individuals and TEL communities to flourish amid the crises and perplexities of our educational working conditions, and the present state of TEL.

2   THE INTER-LIFE PROJECT

The Inter-Life Project (Economic and Social Research Council/Engineering and Physical Sciences Research Council) was conducted between 2008 and 2012 in the UK and Trinidad. It was an interdisciplinary project involving researchers with divergent backgrounds in a project that was complex, as well as conceptual, methodological and theoretical. The work of the project was at the intersection of the contributing disciplines, and this impacted on the practical research activities of the project. The project focused on the development of an integrated inter-cultural 'context' in a 3D platform (Second Life™) to investigate how young people could use it creatively to assist in understanding and navigating their key life transitions. The central aim of Inter-Life was to create a community space or 'youth centre' in a modern and engaging online environment, where young people could pursue their own research agendas. The team chose to work with virtual reality in a 'virtual world'. Virtual worlds are avatar-based and networked, social spaces. Avatars in this context are animated graphic representations of participants that can move around in the virtual world under their control. They are often in human form but can be animals, birds, or other entities. They can be modified by participants at will. The world itself is constructed and shaped by the participants (see Figure 1: a meeting space on the beach in one of the Inter-Life Islands with interactive display boards floating in the air). Avatars can fly and 'teleport' from one part of the world to another. They can communicate with one another using gesture, text and real audio. These features build upon the reality that is already familiar to all of us, but they also extend it in imaginative and highly engaging ways – an aspect of virtual worlds that Thomas and Brown have called the 'networked imagination' [1]. To summarise, open-ended virtual worlds (of the type featured in this paper) are 'persistent social spaces that provide players or participants with the ability to engage in long term, coordinated conjoined action' (Thomas and Brown 2009, p.37). Inter-Life created a highly visual and engaging online game environment where the participants make up the rules, design the game and customise the gaming environment. We attempted to work with young people as participant 'co-researchers' in a 'Virtual Research Community' (VRC) created in our virtual world. In this co-research, the adult research team was encouraging the young people to develop their own research agenda. This paper explores some of the themes that emerged from the results of the Inter-Life Project (2008-2012) [2], [3], [4], [5], [6], [7], [8], [9].

3   THEORY AND THEORISATION

The Inter-Life Project needed an interdisciplinary theoretical framework that would be powerful enough to help us understand and analyse the activities of the young people with whom we worked. Cultural Historical Activity Theory (CHAT) was identified as a promising candidate using an approach to theory selection developed by Halverson [10]. CHAT focuses on the constituent influences on activity and places the participants and their goals centrally in 'systems of activity'. These systems include the tools used by young people, their motivations and goals, ideas and values, the community context and the artefacts that they create. Within this general framework, we focused on creative practices as tools to support reflection on social justice issues, the use of virtual worlds as a community context and the development of young people's voices through creative practices as goals. The young people with whom we worked co-opted the tools and community setting for their own use and began to articulate their own goals during the project 'workshops'. One of the key issues we faced in the Inter-Life project was to take account of the complexities of the activities. We decided to use CHAT because we think it offers the possibility of systematically integrating the key components of learning in virtual worlds: tool development and mediation; internalisation of social knowledge; and transformations of the structures of human activity as it arises from learning and development [11]. Third generation AT [12] recognises and attempts to address the challenges of understanding dialogue and the multiple perspectives of

participants. It also seeks to understand the complexity of interacting activity systems as those engaged in joint projects seek to develop their goals. CHAT is also concerned with 'objects' and the activities that are driven by them [13]. Objects can be concerns, foci of attention, or motivation to achieve a goal. Such objects can change in nature what Engeström has called 'benign' runaway objects and transcend boundaries, yield intermediate products and be visible, accessible and cumulative. They allow participants to return time and again, and engage in exchange and feedback with one another [13]. CHAT provides a coherent theoretical framework that connects the 'aims' of our young people, co-constructed through negotiation with the research team, with the spaces we are calling 'virtual communities'. The 'boundaries' in these spaces are between the school 'activity system' and the home 'activity system'. The unit of analysis, then, is not one or other, or both, of these activity systems but rather the boundary space between them where the young people are attempting to create artefacts (films, photographs and discussions in the virtual community) that explore their concerns and address their sense of justice. Roth [14] argues that emotions and identity are an integral part of this analysis, and understanding action level emotion ('actions' are the sub-activity processes that constitute an activity) may help with understanding activity level motives. Third generation CHAT expands the analysis in two directions, tackling both multiple activity systems and their partially shared objects. It also tackles subjectivity, experiencing, personal sense, embodiment and moral commitment. The challenge, Engeström [13] points out, is to integrate analyses of multiple activity systems and their partially shared objects (films, photographs, and discussions in the virtual community, in this case). We argue that creativity arising from film-making and photography, and the shared emotional explorations that resulted, can be enabled by a novel space where some of the boundaries of traditional spaces are removed. Thinking can be opened up. A zone of proximal development, as Inter-Life might also be described, is a place for exploration rather than achievement. It is not an empty space but has dominant ways of being derived from home and school. However, because it is a boundary space, it more easily permits the possibility of change, creativity and growth. This thinking is exemplified in an excerpt from an interview at the start of the project, when one of the Inter-Life team members commented:

'I think a lot of educational spaces that exist are deeply constrained by social, cultural and political forces that mostly don't want them to be exploratory spaces and have very restricted views of knowledge creation...and don't want to accommodate a mixing of the social, emotional, and cognitive, whereas I think a lot of our learning is a mixture of all three of those...and so as an educator I was attracted to Second Life as a space where that possibility exists...'

(Educational Researcher, 22 March 2009)

4 INFORMAL LEARNING COMMUNITY

The realisation and implementation of the idea of community, as a basis for informal learning, was central to the Inter-Life project [15]. It was one of the key aims of the project to create informal virtual research communities (VRCs) for joint working, creation and discussions. CHAT helped us to focus on community as a key aspect of joint activity. Control was negotiated in an on-going way between the young people and the research team. This was an open conversation from the start. We were investigating ways in which the VRCs that developed within Inter-Life helped young people to acquire and develop skills to enhance their navigation of important life events in the real world. The young people were investigating a wide range of life issues significant to their own agendas. We co-inhabited the virtual island spaces. Researchers from the Inter-Life project worked with two distinct and separate communities on ILI2 [6]. One of the younger communities that was formed comprised young people living in local authority care in Glasgow and Sheffield (ages 13 to 17+) and a second comprised a small group of young people and their teacher in Trinidad (young people also ages 13 to 17+). One of the ways in which the research team endeavoured to relate to the young people and their youth agendas was to work alongside participants to develop their community and help them to express their "voices." Researchers from the Inter-Life team engaged with each separate community in a series of co-designed activities involving engagement in "creative practices" such as digital storytelling, filmmaking and photography, to explore important issues of individual and collective concern. These related to the social and emotional challenges of real world life events – such as moving from school into higher education, and strategies for tackling bullying. In the case of some of the participants, relocating to a new local authority/foster home, changing schools, making new friends and dealing with family bereavement were key events that they actively wanted to discuss in the community.

Creative practices were used as a vehicle to enable young people to access and develop shared narratives about these issues as they worked together with researchers over an extended period on ILI2 [6].

From a CHAT perspective, we were interested in how participants acted and developed in the Inter-Life VRC while engaged in a series of co-designed creative and research activities mediated by tools (e.g. film technologies). We wanted to explore what, in reality, happens within these community spaces, and what meaning participants made of their activity within these spaces over a sustained period. This included probing how skills and understandings – that were developed as a consequence of engaging in a range of creative activities within Inter-Life community over time – mapped onto the real world. We were also particularly interested in researching how the VRC acted as an authentic context (that we supported and mentored) for participants in sustained engagement with a range of creative activities. We also looked at how the acquisition of new ideas (in this context, new insights, and new perspectives) helped participants to reconfigure the way they looked at the world beyond, while simultaneously engaged in activity in the VRC. We were interested in the dialogue, emotions and multiple perspectives that can be created and expressed in such a space, and the way in which young people's identities were forged and changed within this community. The research team were interested in understanding the mediating influence of creative practices as tools to support reflection on a wide range of informal educational aims, including those relating to social justice and the development of young people's own authentic voices. What both VRCs had in common is that they could provide a space for the development of shared values through the provision of mutual support, shared thinking and shared goals – what Engeström referred to as "benign run away objects." As previously mentioned "objects" within the context of the Inter-Life project were participants' concerns, motivations and goals. These were largely realised through artefacts (film, photography, narrative, written dialogue), that were capable of transcending boundaries and which were also visible, accessible and cumulable within the community [6]. Participants could return time and again to these artefacts – leading inevitably to the evolution and transformation of the objects themselves and creating a real history. The artefacts became drivers of iterative action as well as a focus for exchange and feedback with participants in the community [13], [6]. In this way, over time, the two communities developed and transformed into real research communities, by way of their interactions, and engagement with the development of artefacts (objects). These "objects" mediated activity in the community and created a focus for future action – in other words they helped to animate activity. The VRC that was developed might therefore be described as a "creative sounding board" for the expression of these new insights and perspectives, mediated through the tools (e.g. technologies) and activities (creative practices), and resulting in the development of individually and collaboratively produced artefacts (sculptures, film, photography, fashion). The community acted as a (cultural) resource and, to some degree, a "safe place," since it was highly supported by mentors, enabling participants to engage in an iterative process of reflection, re-interpretation, re-evaluation and re-integration of the social, emotional and cognitive aspects of their "in world" experiences. The Inter-Life Project demonstrated both the role and importance of research communities; that is people working together on joint enterprise/s, dedicated to using a joint set of tools (creative tools in this case, e.g. cameras, video cameras, software, virtual world) to investigate an issue or set of issues in a systematic way, and to be able share the results (with outsiders and those in the group) to improve practices that are important to the community [15].

5 CONCLUSIONS

One of the themes that emerged for us from our work was the role of theory. We specifically considered Activity Theory (or more accurately Cultural Historical Activity Theory – CHAT), but we strongly feel that our argument has broader application to other theoretical frameworks. In the present paper, we have tried to look at CHAT theory in our own work. However, we also think that the use of theory as part of the intellectual 'self-defence toolkit' can help researchers and practitioners more widely in the global TEL community. Theory and its relationships with practice can be complex and contingent. Yet theory can offer us the language, history, scope, and power that we need to be reflexively aware of both our own interests and those of others who are actors in the settings in which we are working.

A second theme relates to the importance of people working together in research communities and joint enterprises. Dedicated to using a joint set of tools to investigate an issue or set of issues in a

systematic way, and to be able share the result (with outsiders and those in the group) to improve practices that are important to the community – we argue that these processes, in a caring community, are central to resisting some of the directions in which industrialised TEL might be heading. They have implications for us as teachers, researchers, and members of a globalised TEL 'community'.

Finally, we think that the ideas in the paper may help in developing new theory-informed modes of pedagogy in higher education. We are concerned to engage in creative and interdisciplinary approaches to new pedagogy, with a view to helping higher education learners to find their critical voices in challenging times. This also has implications for the professional development of educators in the higher education sector.

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