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The realities of researching alongside virtual youth in late modernity creative practices and activity theory

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The realities of researching alongside virtual youth in late modernity creative practices and activity theory

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Young people's use and understanding of the Internet is still under-researched. We argue that researching alongside young people in technological settings (a virtual world on the Internet in this paper) is a complicated nexus of conceptual, methodological and theoretical challenges. We argue that these are in dialectical, and sometimes incoherent, relationships with the realities of research processes and young people's lived experiences with Information and Communication Technologies (ICTs). The Economic and Social Research Council/Engineering and Physical Sciences Research Council (ESRC/EPSRC)-funded Inter-Life Project developed a 'Virtual Research Community' in Second Life™ to investigate how young people can work creatively to develop their own agency and subjectivities. We reflect on these challenges as they articulated with the 'Inter-Life' Project's aims. They include the need for more empirical evidence of the realities of young people's lives with ICTs, and for re-theorisation of their subjectivities in ICT settings. We interrogate the challenges of participatory research in such settings and the role of creative practices and virtual spaces in finding a voice and being a participatory researcher. In the second part, we illustrate the realities of researching in a virtual world through the lived experience of young people who worked with us. We also explore how activity theory (AT) might assist in the methodological and analytical work of researching young people's creativity in a virtual world.

Keywords: ICTs; new technologies; activity theory; virtual worlds; participatory research; creative practices; research community

All people need to do is sit back, shut up and shop, and let markets and technologies work their magical wonders ... these claims should be regarded with the utmost scepticism.

...when one takes a close look at the political economy of the contemporary global media and communications industries, we can cut through much of the mythology and hype surrounding our era, and have the basis for a much more accurate understanding of what is taking place... to organise effectively for social justice and democratic values.

(McChesney 2001, 2–3)

Introduction

This paper uses evidence from the Inter-Life Project (2008–2011/12) to examine a complicated nexus of conceptual, methodological and theoretical challenges that may

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arise, we argue, when researching alongside young people in technological settings, especially the Internet. It also presents findings from the project to illustrate how the Internet can be used to build and sustain a virtual research community of young people, and how this can support their creative endeavours in pursuing an agenda that they have developed.

Young people's use and understanding of the Internet is still under-researched. In a very extensive review of media literacy, Buckingham et al. (2005) concluded that there is still a significant paucity of research about how young people evaluate, interpret, and respond to the Internet. Social class and economic status are well identified as limiters to their access to the Internet, more than to other media such as radio or television. However, less is known about other potential barriers to use, including the role of individual subjectivities and motivations. Buckingham et al. (2005) have argued that such barriers may affect the quality of access as well as the quantity – for example, in terms of the available functionality of the technology, the location and the level of support for use. The evidence analysed by Buckingham et al. (2005) also suggested that access to the Internet in schools was often very limited. Different social groups may have different orientations towards particular media— or different forms of 'cultural capital' – and that may also influence the nature and quality of access (Furlong 2011).

This paucity contrasts with research relating to young people's 'creative' use of the Internet. Here there has been less research relating to 'older' media such as video and analogue radio than to the Internet. The evidence suggested that there is potential for Internet media to be used for communication and self-expression, that creative involvement in media production in the context of education could make an important contribution to the development of critical understanding. Additionally, new media – for example, the virtual worlds employed in the Inter-Life Project (reported in this paper) – may provide possibilities for new forms of interaction.

In her work with young people using the Internet in the UK (including for political participation), Livingstone (Livingstone 2008; Livingstone and Bober 2004) revealed a complex nexus of issues around protection, privacy, control and expression that she predicted would require considerable research endeavour, with a wide range of systems, to develop understanding. In relation to online creativity and pupil voice (two of the key foci of the Inter-Life Project), her 2004 study revealed the need to explore how this could be supported – as a research priority.

A preliminary note on the Inter-Life Project and Activity Theory (AT)

This paper is based upon research undertaken for the Inter-Life Project between 2008 and 2012. In the first part, we argue that researching the relationships between 'Youth and New Technologies' (specifically, Information and Computer Technologies (ICTs) – and particularly, the Internet) is a complex of conceptual, methodological and theoretical challenges and opportunities. We reflect on four underpinning key themes that emerged during the 'Inter-Life' Project. The work of the project is, in some ways, at the intersection of these themes, and they significantly impacted on the practical research activities of the project. Yet they were also sometimes discordant and incoherent in their relationships to each other. The Economic and Social Research Council/Engineering and Physical Sciences Research Council (ESRC/EPSRC)-funded Inter-Life Project (Teaching and Learning Research Project/Technology Enhanced Learning [TLRP/TEL] Phase; 2008–2011; see <http://www.tlrp.org/tel/>) (Sclater and Lally 2009) focused on the

development of an integrated inter-cultural ‘context’ in a 3D platform (Second Life™) in order to investigate how young people can use this creatively – individually, and collectively – to assist in understanding and navigating their key life transitions through specific skills development. 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 (within the ethical frame of the project and by negotiation with the team) 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 and customised by participants at will. The world itself is constructed and shaped by the participants (see Figures 1 and 2, for example: the central deck area and a meeting space on the beach in one of the InterLife Islands (IL12) 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 (in real time). 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’ (Thomas and Brown 2009). In 1995, Paul Moore (1995) argued that while ‘virtual reality’ was in a basic state of development, it might be destined to have a future impact on the theory and practice of teaching and learning. Less than 20 years later ‘virtual worlds’ – providing a form of online virtual reality – have emerged as a powerful medium for education. For many educators, the most familiar format in which they may have encountered virtual worlds is computer games (Ma, Oikonomou, and Jain 2011). Some of these games contain sophisticated ‘immersive representations of reality’ and



Figure 1. The central deck/stage area on IL12, with tables, chairs, interactive boards, trees and a car. The coastline can be seen in the distance.



Figure 2. The meeting space on the beach in ILI2, with interactive boards.

have implications for education (Freitas and Liarokapis 2011) because they allow powerful social and educative experiences for participants. Game-based approaches to virtual worlds may require much more technical support and development, and are less flexible for educators, than the more opened-ended virtual world that was used by Inter-Life. 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, 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 InterLife Island 2 (ILI2). In this co-research, the adult research team was encouraging the young people to develop their own research agenda. In the second part of this paper, we have attempted to illustrate the challenges of researching in this virtual world and the lived experience and subjectivities of young people in it (who volunteered to work with the Inter-Life Project). In doing this, we will attempt to illuminate the sometimes complex dialectical relationship between these themes and the realities of working alongside young people in a virtual world.

The Inter-Life Project needed to develop a theoretical framework that would be powerful enough to help us understand and analyse the activities of the young people with whom we worked. Activity Theory (AT) was identified as a promising candidate using an approach to theory selection developed by Halverson (2002). AT 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 workshops.

Methods and methodology

The ILI2 virtual world was created using an account with the commercial virtual world's provider Second Life™. The Inter-Life research team created an initial working space that looked like an island in a tropical sea with an undulating terrain. The team placed a deck/stage in the centre of the island and a little vegetation. Much of the subsequent development of the island was undertaken by groups of young people who participated in workshops. [Figure 1](#) shows the central deck/stage space after two years of development work by several groups of young people. Young people were able to customise the space to suit their needs and purposes. No artefacts or structures were ever removed from the island by the research team.

The Trinidad Virtual Research Community (TVRC) featured in this paper consisted of young people (16+) from a fee-paying school in Trinidad. The community was coordinated by a teacher at the school, who also participated in the workshops (Diamond Indeed – avatar name). Diamond Indeed liaised between the young people and the UK-based research team. These young people were living with their own families and tended to have access to excellent Internet connectivity and software/hardware resources in their own homes. They participated in the workshops after school but from their own homes. The group was constituted as a virtual research community; the research team had the explicit aim of supporting this community of young people as they came together, identified their concerns, shared these and then began to focus on how to investigate them and make films to depict them. The early meetings (workshops) were planned by the team in order to support agenda building and discussion about ways of working. What emerged from these dialogues occurred in two phases. In the first, the young people used photography to document their lives and living spaces, issues and concerns. These were shared on the interactive boards and formed the basis of many discussions about live issues and concerns. In the second phase, the young people developed digital videos on issues including bullying and recreation in Trinidad. These were team productions that led to many further debates about future plans and activities. The development of all of these activities moved between the virtual island and the real world, with both spaces being used for discussions, planning and development work.

In this paper, a form of content analysis was applied to samples of the real-time, text-based interactions of participants (see De Laat et al. 2007 for details). The results of this analysis were combined with extracts from the dialogue itself. The coding schema (see [Appendix](#)), developed from AT and project research questions, was used by three researchers to code utterances from ILI2 workshops. The unit of analysis was the entire utterance, and this was coded using only one schema category per utterance. If multiple codes are applied to a single utterance in order to capture layers of meaning – or possible multiple meanings – the coding results quickly become very unwieldy to analyse and represent. Coding also becomes extremely labour intensive. Once a single code was applied (for example, coding an utterance that linked ILI2 activity to the 'real world' as 'Mapping onto the Real World' [MRW]), then the same code was applied to subsequent (follow-on) utterances until a new code could be applied. This coding process required

coder training. Two coders would code the same workshop, and then participate in a ‘coding conversation’ to examine differences in coding values. A third coder moderated these conversations and differences. Table 1 shows the number of utterances coded for each category, for all participants and for the workshop featured in this paper, taken from the TVRC. This group of young people worked with the Inter-Life Project during 2010–2012. The group consisted of young people in the 15–17-year-old age group, and all were volunteers who undertook participation in the project during their own time. All the participants are referred to by fictitious avatar names.

A complex of conceptual, methodological and theoretical challenges and opportunities

Researching the ‘Digital Generation’: from common sense to critical

For just over a decade, working with Young People and Information and Communication Technologies (ICTs and other digital technologies and games) has been in the shadow of what has become known in Europe and the USA as the ‘digital native’ literature. Selwyn has argued that this is part of an enduring phenomenon – according to young people an ‘emblematic role’ in relation to the societal challenges of new (and potentially threatening) technologies; it has a long history (Selwyn 2009, 364). Indeed, Wartella and Jennings have argued that this is a recurrent pattern stretching back to the advent of radio in the 1920s (Wartella and Jennings 2000). However, the ‘digital native’ phenomenon derives from the work of Marc Prensky (Prensky 2001a, 2001b, 2005, 2008, 2009, 2010) and others. Prensky’s work has depicted young people as being immersed in these ICTs and frames the nature of this relationship as a ‘discontinuity’ (Prensky 2001a, 1) with previous generations.

Similarly, Tapscott (2009) talks of ‘Net Geners’ and claims that they can be identified through shared ‘norms’ that include collaboration, freedom, integrity and innovation. He develops a similar thesis to Prensky. The very extensive claims of this literature have tended to depict the generations of youth born since 1980 as having confidence and possessing new practices and dispositions in these and other domains, synergised by new technologies that have become an essential component of their lives (Selwyn 2009, 366). The digital native ‘movement’ has gone as far as to claim that young people immersed in new technologies are actually thinking and processing information differently and that their experiences have led to different brain structures. Prensky implies that young people are now somehow hard-wired with a propensity to use these technologies – as a result of their interactions with them (Baird and Fisher 2010). Selwyn (2009, 366) has argued that these claims for a distinctive new digital native culture and brain chemistry – with neurological and cognitive benefits (Small and Vorgan 2009) have become influential within political and popular discourse. He contests that much of this plausible and commonsensical discourse is episodic, uncritical and disjointed. Yet it is powerful because it has been taken for granted (Ng 1997 cited in Selwyn, 366).

Selwyn goes on to argue that the ‘reality’ of these digital dispositions (also referred to as potential ‘myths’ by Selwyn), that have come to represent the ICT activities of youth in this discourse, are poorly supported by empirical research. Some of the features of this discourse, including collaboration, communal creativity, and personalisation are relevant to the argument of this paper because the aims of the TLRP/TEL programme (Technology Enhanced Learning: UK’s Teaching and Learning Research Programme 2013), of which

Table 1. Coded utterance values for TVRC workshop 15 (24 May 2011).

Mentors												
Code (see Appendix)	SC	CASC	APC	GPI	FSP	FBS	ANRS	TRCN	GNP-R	DL	MRW	Totals
Avatar name												
Fluffy Greybeard	9	0	0	0	8	0	0	0	0	0	0	17
Mountain Crease	10	2	1	0	29	0	0	4	0	2	0	48
Joseph Stellar	42	0	0	0	87	0	1	0	1	1	0	132
Cool Dreamer	22	0	0	5	27	0	0	0	0	0	0	54
General Ward	16	3	0	5	19	0	2	1	1	3	1	51
Diamond Indeed	3	2	0	6	11	0	1	0	0	0	0	23
Totals	102	7	1	16	181	0	4	5	2	6	1	325
Young People												
Code (see Appendix)	SC	CASC	APC	GPI	FSP	FBS	ANRS	TRCN	GNP-R	DL	MRW	Totals
Avatar name												
Bute Lyros	1	1	0	15	26	0	0	0	1	0	0	44
Ranulph Navigata	14	0	0	2	17	0	1	0	0	2	0	36
Melly Covert	1	0	0	2	6	0	0	0	0	1	0	10
Frankie Highland	0	0	0	4	10	0	1	0	1	0	0	16
Ben Whirlwind	5	0	0	8	17	0	0	0	1	0	0	31
Totals	21	1	0	31	76	0	2	0	3	3	0	137
Totals												
Mentor Total	102	7	1	16	181	0	4	5	2	6	1	325
Young People Total	21	1	0	31	76	0	2	0	3	3	0	137
Code	SC	CASC	APC	GPI	FSP	FBS	ANRS	TRCN	GNP-R	DL	MRW	Totals
Young People Male	21	1	0	31	76	0	2	0	3	3	0	137
Total												
Mentor Male Total	80	3	0	10	133	0	3	1	2	4	1	237
Mentor Female Total	22	4	1	6	48	0	1	4	0	2	0	88
Grand Total	123	8	1	47	257	0	6	5	5	9	1	462

Inter-Life was part included these features. Technology-assisted flexibility and the personalisation of learning events was part of the TLRP/TEL programme ethos. The possibility that these features of technology (in virtual worlds in our case) might allow young people to enhance control over what, where, when and how they engage in creative activities is one of the key features of the digital native claims that requires further and significant empirical work. If we are genuinely to move this debate forward much focused empirical work of the type commissioned by the TLRP/TEL programme will be required. In the second part of this paper, we provide an illustration from the Inter-Life Project of how a group of young people worked in the early stages of our VRC as participant researchers.

Another aspect of this debate centres on the possibilities of disempowerment of young people arising from their use of digital technologies (including ICTs). Its proponents argue that the increase in autonomy arising from the use of digital technologies (especially but not exclusively the Internet) may lead to risky behaviours including self-harm, emotional damage and being exposed to sexual risks (Byron 2008). Others have argued that the dumbing down of young people's relationships with information and knowledge, exacerbated by search engines and Internet sources, is damaging their critical development (Brabazon 2007).

Some recent studies have begun to unravel the underlying complexity of this debate in a more rigorous and evidence-based way. The work of Buckingham et al. (2005), for example, extensively reviewed young people's media literacy, including use of the Internet, using a framework that considered access, understanding and creativity. The review considered both barriers and enablers, identifying gaps in the literature as well as reporting on methodologies used in studies. In terms of young people's understanding of the Internet, they noted that there is a significant paucity of research about how young people interpret, evaluate and respond to the Internet. In comparison, there is much more relating to television, where young people do develop critical understanding alongside aesthetic and emotional responses. Creativity has been much more extensively researched in relation to the Internet than older media. Here, the research so far (up to the point of the review) revealed that there is potential to make a contribution to the development of critical understanding through self-expression, though this is, as yet, under developed. There is little research into media education in the informal sector that relates to creativity and understanding. The authors concluded that creativity is poorly researched in relation to new technologies. In terms of methodologies, it was clear that new approaches are needed in relation to assessing effectiveness of new media. The Inter-Life Project specifically focused on the use by young people of a range of creative practices, including film-making, avatar design and fashion, photography, and artefact creation (e.g. landscape design on the virtual island) (see underpinning theme 'The role of creative practices and virtual spaces in finding a voice and being a researcher' below). These were used to support emotional and critical expression and multiple skills development, as well as engagement with issues of social justice that were of concern in their lives.

Work by Livingstone and others (Livingstone 2008; Livingstone and Bober 2004) has further helped to understand wider Internet usage in the UK among 9–19-year-olds and political participation by young people through the Internet. In relation to online creativity and pupil voice (the focus of the present study), the 2004 study revealed the need to explore how this could be supported as a research priority. In terms of young people's voices and expression, the 2004 study revealed issues around protection,

privacy, control and expression that will require considerable research endeavour with a wide range of systems.

Livingstone commented:

...a second great irony, one in which the internet's potential for interactive and democratic engagement goes unrealised, as society – not only users but also institutional providers and website producers, stick with what they know, namely, the familiar and undemanding territory of mass communication. (Livingstone 2008, 564)

Outside of the USA and Europe the position is even more challenging. For example, Liu (2011) in her study of Internet use by urban youth (15–24) in China reveals a pattern of largely recreational use to combat the pressures of education and lack of opportunities in real world social contexts. This is one of very few studies of details of Internet use of this age group in China. The situation in the developing world is also poorly researched at present. Halewood and Kenny (2008) draw similar conclusions to those of Buckingham and Livingstone. Much needs to be done to get even a basic picture of usage and potential.

The challenges and opportunities of research with young people: theorisation and participation

In the Introduction, we suggested that investigating the relationship between youth and new technologies presented conceptual, theoretical and methodological challenges, as well as opportunities. Two of these emerged as practical considerations during the Inter-Life Project. The first was to find a theoretical frame that would help to conceptualise the subjectivities of shared activity in a 'network of others', and provide a focus for the microanalysis of this activity. The Inter-Life Project was investigating the development of transition skills as a distributed group of young people and their mentors engaged in creative practices in a virtual world. The second challenge was to engage with young people so that their voices and activities could occupy a key role in their own research process.

Towards a theoretical frame for microanalysis of subjectivities

Dwyer and Wyn (2001) have also pointed out that growing up in our post-industrial age is seriously under-researched. The conceptual framework for understanding youth transition has been extensively debated, and one of the tensions is between the 'linear' developmental/structural approach (Roberts 2007) and the 'social generation' approach that has been elegantly argued by Wyn and Woodman (2006). They have further argued that the 'subjectivities' of youth, seen through the lens of the concept of 'social generation', help to provide deeper insights into their participation and shaping of change and into their meaning-making than is possible with a linear approach alone (Wyn and Woodman 2007). Furlong and Cartmel (1997, 2006) have argued the processes of transition may yet remain highly structured, continuing to reproduce class-determined, gendered and unequal life chances. Ahier and Moore (1999) suggest, however, that this focus on the family in its traditional forms as the unit of analysis does not take account of the complex forms of experiential, cultural and economic assets that now need to be managed in the process of transition to adulthood. They argue that facilitating transitions within a network of 'others' requires retheorising within a broader context and not only within the immediate family and its associated processes of social reproduction. We argue

below that AT may well provide a fruitful framework within which to conduct research around the subjectivities of youth, including the acquisition of skills that relate to experiential, cultural and economic assets within a network of relationships. This is particularly important given the increasing range and complexity of processes in which young people are engaged as the links between school, family and work that have weakened, alongside similar weakening in ‘traditional’ forms of authority (Beck 1992; Furlong and Cartmel 1997, 2006).

Biesta (2006) agrees – arguing that a ‘predicament’ can arise from the concept of lifelong learning where young people can feel a lack of empowerment to create their own learning ‘agenda’ amid conflicting life and social demands. These factors can result in a process of increasing of ‘individualism’ in the public sphere. At the same time, there may be increased reliance upon family resources in the private sphere. AT may, as yet, be a partial approach to this challenge, but it represents an opportunity to elaborate the complexities of subjectivity and its motivations as they develop in a wide range of settings.

Reflexivity, the researchers’ challenge and participatory research

In their paper, on the challenges of undertaking participatory research with Tech Savvy youth, Mallan, Singh, and Giardina (2010) have outlined some of the central issues of working with young people in the field in participatory research mode. Initially, they observe that it:

...requires the development of a conceptual and methodological framework that integrates the everyday experiences of youth with the multiple space- – place connections facilitated by new media and network ICT systems. (Mallan, Singh, and Giardina 2010, 256)

We suggest here that it may be possible for this issue to be addressed through the use of AT, where the activity system becomes the unit of analysis. The identity, emotion, ethics and morality, motivation, responsibility, and solidarity of young people are then brought into focus as they work together, within or between activity systems (on shared or partially shared runaway objects – goals that are not under any one person’s control and may have far-reaching and unanticipated effects). Third-generation AT (Engeström 2001, 2009) focuses on dialogue and the multiple perspectives of participants, which are at the centre of our research enquiry. The ILI2 virtual world was designed as such a space, where everyday experiences could be both shared and investigated/researched. The importance of participants’ investigation, that is, ‘reflexivity’ in work with young people and ICTs is also highlighted by Mallan, Singh, and Giardina (2010). In particular, they adopt the concept of social reflexivity as a conceptual ground. They are referring here to a society where the conditions in which we all live are increasingly a product of our own actions and, conversely, our actions are increasingly oriented towards managing and challenging the risks and opportunities that we ourselves have created (Giddens and Pierson 1998, 17). Mallan et al. also highlight some of the perspectives of critical youth studies that emerge from this orientation, and ‘challenge dominant developmental paradigms’, namely, ‘complexity of power and exploitation, empowering strategies for youth, a commitment to reflexivity (by researchers), and an acknowledgement of young people as reflexive social agents...’ (2010, 256). They further argue that conducting participatory research is one of the ‘unifying thread(s)’ where young people can be agents of knowledge about their own lives. One of the aims of the Inter-Life Project was to

undertake codesign and participant research with young people. The creation of a virtual research community for and by young people was a key part of the means by which we attempted to realise this aim (Lally and Sclater 2012, 2013). As a part of this process, the research team wanted to encourage young people to express themselves in a variety of ways and develop their own ‘voices’ as part of their own research process. Part of the ‘researchers’ challenge’ for us, however, was that our own research agenda, funding and ethical undertakings placed limits upon us that required careful thinking about the process by which we (as adult researchers) engaged with our youth researchers. This led in two directions: Firstly, a search for an empowering strategy or practice that the young people with whom we worked could control. Secondly, for a way of inducting the young people into their own research agenda that was not unduly limited by own agenda and restrictions as researchers. We gradually moved towards creative practices, including filmmaking, photography, fashion and virtual artefact construction (see below), both as research tools and as multi-faceted media for the expressions of young people’s voices.

In her pioneering work, Jean Rudduck (Fielding 2007) established an important research agenda around students’ voices in educational settings. Going back to the mid-1980s, Rudduck articulated central insights – see, for example, Rudduck (1984) and McIntyre, Pedder, and Rudduck (2005) – that highlighted the need for teachers (in our project called ‘mentors’) to gain access to students’ perspectives on teaching and learning as a ‘precondition for any development of new ways of working’ (Fielding 2007, 324). Rudduck viewed the establishment of ‘genuine partnerships with young people’ as essential ‘if exploratory forms of learning are to become real, engaging and successful’ (Fielding 2007). In *Inter-Life* the use of creative practices became a key vehicle for building such partnerships with young people.

Rudduck’s work is a significant and pioneering strand in a movement that has begun to articulate the roles of young people as ‘protagonists’ in their own lives and learning. In developing approaches to the power relations that exist when adult researchers work alongside young people engaged in research activities Rudduck proposed a ladder of participation (Rudduck 2002), in which young people gradually acquire a more sophisticated involvement with the research process. This does not remove the dangers of participatory research, but it does codify a way of working that acknowledges the importance of gradually relinquishing adult control over the process. However, if adult researchers use the co-researcher process to re-enforce their status quo, for example, then the transformational nature of the process may be damaged (Fielding 2010).

Kellett (2009) is another pioneer who has argued that considerations of young people as ‘protagonists’ are the result of attitudinal shifts in society (31). Kellett has also argued that the varied insider perspectives of young people on many issues relevant to their lives can be harnessed by young people themselves, and help to move them from the margin, when they are engaged in research initiatives. She argues that there is a need for more transparency about the possibilities of this participation having an impact on policy and practice; otherwise, it can so easily become a form of ‘tokenism’. As a mode of citizenship education, this active participation may lead to a dichotomy, where the absence of political will and overprotective policies, can hinder or prevent active engagement by young people/children from having any meaningful impact, and is, in fact, a chimaera of citizenship. A similar argument can be made about the ‘voices’ of young people. Kellett (2009), for example, argues that young people’s voices have been silenced historically in the accounts of sociologists, anthropologists and historians, who may, at the same time claim to speak for them. Kellett (2005) identified action research as

an appropriate method for developing both metacognition and critical thinking in young people. In the Inter-Life virtual research community, we supported an action research approach because we thought it supported control of the rich and varied processes of research by the young people with whom we were working. The voices of young people are highly diverse with individual and collective aspects as can be seen in the evidence presented in part two of this paper. No one voice can speak for all the young protagonists in any context in which they are meaningfully engaged and have active interests.

However, Burton, Smith, and Woods (2010) argue that it may never be possible to completely relinquish control of the research process (92) for two reasons: ethical responsibilities relating to pupil confidentiality and the challenge of handing over control for research processes for which young people do not yet have the prerequisite skills. At the same time, she observed extensive skill development by her pupil researchers, including problem solving, cooperation, empathetic awareness of needs of other pupils and the application of skills to real life issues. Burton's study also reported the development of speaking and listening skills, computer technology skills and improved confidence.

The role of creative practices and virtual spaces in finding a voice and being a researcher

In thinking about creative educational spaces, Sagan (2008) has highlighted the importance of emotional and affective dimensions of learning (174). She argues that these aspects are also copresent features of learning spaces that can enable positive learning or impede it. Virtual Worlds like Second Life™ (in which Inter-Life's ILI2 is constructed) offer many possibilities for developing such creative spaces. Within them, creative expression and the development of creative practices (developed from Art and Design education) – from the possibilities of changing one's appearance, to the creation of sculpture, modification of landscape, flying, teleporting and collaborative tools – are all possible (Doyle 2010). Such spaces offer many possibilities for the development of positive emotional environments for learning (see Figure 1).

In the TVRC, we used photography and montage based upon photographic work to help the groups to cohere (based upon pioneering work of Sclater 2007, 2011). Young people were able to express themselves through this creativity, share their worlds, enter the worlds of others and discuss these experiences, which became part of the creative expression in which they were engaged together. Making digital documentary films was also used later by TVRC as a vehicle for attempting to research 'real life for teenagers in Trinidad'. This kind of work has previously been undertaken in real-world informal spaces with young people (Lin, Grauer, and Castro 2011) but not in a virtual world (Figure 2).

One of our initial conceptions for the design of ILI2 was based upon the idea of a transitional space (Winnicott 1982), in which aspects of the self can be created and transformed in relationships with others in a cultural setting. As we began to understand the power of AT (see below) it became more evident that a space such as ILI2, between the activity systems of home and school, could be a runaway object (goal) of the project, and perhaps, eventually, a new activity system in itself. Hence, it was a transitional space that metamorphosed into a new space claimed and developed by the young people.

There is also an increasing body of work pointing to the power of creative practices and spaces as vehicles to support the exploration of social justice issues – particularly

through the development of pupil's voice and exploration of visual culture. In the Inter-Life Project, the issues that emerged as significant for the young people included having the power to exert some control over their spaces (school and ILI2 in particular), the use of their time in the spaces, and the nature and purpose of their activities. All of these elements are illustrated in the themed extracts in the second part of this paper. In her characterisation of Social Justice Education, Garber (2004, 6), argued that it can be thought of as 'guiding students to know themselves and their worlds'. Darts (2006) has argued that visual culture provides an important locus where knowledge, beliefs and attitudes are moulded, where 'ideological struggles' take place – often without conscious consideration. For this reason, he argues, an important component of creative practices (that they can enable the young people to probe and critique these ideological struggles) is located in the commonplace. Garber (2004, 6) regards such empowerment as a process of 'reclaiming a voice' rather than as a means of acquiring personal power over others or objects. She argues that the act of helping students to develop their 'voice' actually requires educators to develop a deeper understanding of the array of contexts that young people find significant. This was with one of the underlying considerations of the Inter-Life team.

AT and Virtual Worlds Research

As we have already indicated, one of the key issues we faced in the Inter-Life Project was to find a framework that was sufficiently comprehensive in its theoretical scope to take account of the complexities in the processes of transition skills acquisition among participants in the Inter-Life virtual island (ILI2). In this context, the voices of the young people, their motivations and their goals were key elements of the research for us. Understanding the subjectivities of young people, as they engaged in building a community in which they were key stakeholders and participants, was the central focus of our work.

AT as a theoretical framework to guide and inform research in virtual worlds has, as yet, been little used. The work of Jonassen and others has considered how it might be used in the design of constructivist learning environments (Jonassen and Rohrer-Murphy 1999; Jonassen 2000). However, only in the last six years has research begun to emerge in which AT is considered as a way of framing analyses of communication and other aspects of activity in virtual world settings – in Steinkuehler's investigations of Massive Multiplayer Online Games (MMOGs) (Steinkuehler 2006), for example.

We think that the power of AT in virtual worlds research is that it enables the systematic integration of the key components of learning in such settings: tool development and mediation, internalisation of social knowledge and transformation of human activities as they arise from learning and development (Kaptelinin and Nardi 2006). In his 2008 keynote address on the future of AT, Engeström (2008) reminds us that even though there may still be too little attention paid to the generality of studies undertaken within the AT framework, there is a significant and ongoing increase in the use of the term, and the citation of key texts in the field continues to rise. Engeström (2009) has outlined the evolution of AT through three generations as it seeks to develop its explanatory power. The first generation focused on action mediated by tools; the second focused on Leont'ev's notion of the 'activity system', and the third, in the last 15 years, on multiple interacting activity systems focused on partially shared objects (see Figure 3).

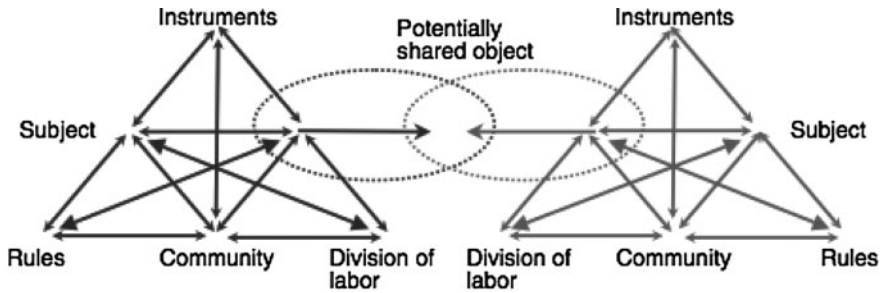


Figure 3. Two activity systems sharing an object (from Engeström 2009).

AT is a theory of object-driven activity, where objects are concerns that generate attention, motivation and meaning around activity, and this creates new objects. These often arise from multiple activities rather than a single activity. One of the central features of third-generation AT is what Engeström has called ‘Runaway Objects’. He defines these as objects that are not under any one person’s control and may have far-reaching and unanticipated effects. They are often contested, may generate controversy and can be emancipatory. The Linux operating system is cited as one example. It has also been observed that many runaway objects are small or marginal to begin with. Leont’ev observed that there are no activities without objects; similarly there are no objects without activity. Such runaway objects cross activity system boundaries. The products may be intermediate in nature and, yet also, be visible, accessible and cumulative. This means that participants may return to them on multiple occasions and engage in exchange and feedback with one another as they develop.

Of particular interest in the Inter-Life Project has been what Roth has called the ‘agentive aspects of activity’ (2009). By this he is referring to the development of understanding of the activity system from the inside, including identity, emotion, ethics and morality and derivative concepts, such as motivation, responsibility and solidarity of the participants as they work together within or between activity systems on shared or partially shared runaway objects. Third-generation AT (Engeström 2001) also recognises the challenges of dialogue and the multiple perspectives of participants as they work – to understand the complexity of interacting activity systems as those engaged in joint projects seek to develop shared goals. In Inter-Life, we worked in a VRC on ILI2 with young people. Their aims (runaway objects in AT terminology) were partly co-constructed through negotiation with the research team. To begin with, the VRC was a kind of boundary space between the school activity system and the home activity system. In this space, a group formed that had not worked together before. Some of the initial discussions around ground rules began to explore the possibilities of the space. Initially, the research team members were dominant in these discussions. The identities of the young people, mediated through avatars, began to emerge and new runaway objects (for example, films) were discussed. These objects utilised artefacts such as photographs and discussions in the virtual community as well as presentations and mini-biographies on the ILI2 interactive display boards. These explored young people’s concerns and began to speak to their sense of justice in relation to personal issues, community issues and areas of contestation within the school. As the young people worked on ILI2, it became a new activity system with its own values and tools. It was a place that began to open up new possibilities, expanding the horizons of what might be possible. It was both different from

the home and school activity systems, and partially in conflict with them – this conflict may have initiated creative contributions to the films (runaway objects) that were emerging.

The unit of analysis, then, is these activity systems, including interactions and agentive elements that occurred during the workshops. Roth (2009) has argued that understanding action-level emotion ('actions' are the sub-activity processes that constitute an activity) may help with understanding activity level motives. Third-generation AT expands the analysis in two directions. As well as tackling multiple activity systems and their partially shared objects, it also tackles subjectivity, experiencing, personal sense, embodiment and moral commitment. The challenge, Engeström pointed out, is to integrate analyses of multiple activity systems and their partially shared objects. Engeström depicts Internet-based social production as a place where the merging of partially shared objects can occur, feeding on more bounded activity systems, yet in some ways beyond them. We argue that creativity arising from filmmaking and photography, and the shared emotional explorations that resulted, can be enabled by a novel (virtual) space where some of the boundaries of more traditional (physical) spaces are removed. Because it is a flexible virtual space, we argue, it more easily permits the possibility of change, creativity and growth.

The reality of working alongside virtual youth: the TVRC

Five young people attended the workshop featured here. There were six mentors present from the research team (indicated by * in Tables 1–4). It was the fifteenth workshop in the series of over 40 and was one of the busiest. The mentors planned the first phase of

Table 2. Trinidad workshop 15 – Avatars, scripting and play – 24 May 2011 (extract i: SC (75%)/GPI (25%)) * = mentor/researcher.

*General	Ward	Hi Bute
Bute	Lyros	Hello
Bute	Lyros	I got a gun
*General	Ward	You look like Edward Scissorhands
Bute	Lyros	HAHAHAHAHA
Bute	Lyros	Is it time for the meeting now?
Ranulph	Navigata	Let's go
*Cool	Dreamer	Looks like the Trinis have been busy!
*General	Ward	Have you seen Bute's gun?
*Cool	Dreamer	No, sorry
*General	Ward	Let's try the other spot
*Cool	Dreamer	There's some people at the far end of the island
*General	Ward	Ok should we start rounding up the new members?
Ranulph	Navigata	Sure
Melly	Covert	Hi every one
Ranulph	Navigata	Hey
Melly	Covert	Like my new look
Ranulph	Navigata	You look like a shipwreck survivor
*General	Ward	Yes
Melly	Covert	I was aiming for the muscle army man

Table 3. Trinidad workshop 15 – conflicts of time and value – 24 May 2011 (extract ii: SC (25%)/FSP (69%)/CASC (6%).

*Mountain	Crease	Hello I'm Mountain Crease
Ranulph	Navigata	Let's go to the meeting
*Mountain	Crease	I've not been able to join for a while but I am here tonight!
*Cool	Dreamer	Hi Mountain
Ranulph	Navigata	This way...
*Cool	Dreamer	Nice to see you back
*Diamond	Indeed	Hi everyone
*Mountain	Crease	Hiya.... thanks. It's good to be here.
Melly	Covert	So we are just waiting on the others
*Cool	Dreamer	Think so
Ben	Whirlwind	Hi everyone – Phyllis is having a problem
Bute	Lyros	Shona cant get on...
*Joseph	Stellar	Do we have any way of helping?
*Mountain	Crease	Hiya Ben, can you put your weapon away please?
*Mountain	Crease	It's pointing right at me!
Bute	Lyros	Ok
Ben	Whirlwind	?
Bute	Lyros	HELP
Bute	Lyros	Got it
Ben	Whirlwind	Right click and delete?
*Joseph	Stellar	OK
Bute	Lyros	Annalese
*Joseph	Stellar	And we know that Shona is having a problem
Ben	Whirlwind	And Phyllis
*Joseph	Stellar	Ok
Bute	Lyros	Annalese will be here late
*Joseph	Stellar	OK
Bute	Lyros	She has extra-curricular activities
*Joseph	Stellar	So we can expect Annalese at some point?
Bute	Lyros	Yes
Melly	Covert	I don't know where Mershell is
*Joseph	Stellar	Right
Joseph	Stellar	Well maybe he'll join us?
*Joseph	Stellar	I know Cool had a suggestion for an introduction?
Ranulph	Navigata	We can start the introductions and the others can do it when they get here
*Joseph	Stellar	Yes
*Cool	Dreamer	Yeah I thought some introductions would be good as I'm not sure everyone knows each other
*General	Ward	Good plan
*Joseph	Stellar	The other thing is about the size of the group

the meeting, as a 'new introductions' activity. Continuity of attendance was a recurring problem in the group. Some students appeared occasionally and then disappeared. Others appeared regularly for only one sequence of activity and then disappeared again. Some students were changing appearances on almost every visit. There had been an increase in

Table 4. Trinidad workshop 15 – confusion, history, meetings – 24/05/11 (extract iii: FSP (64%)/GPI (14%)/SC (11%)/CASC (45)/ANRS (4%)/TRCN (2%)/MRW (1%)).

Ben	Whirlwind	It's Frankie
Ben	Whirlwind	I shot gun Frankie
Frankie	Highland	I'm confused...
Bute	Lyros	GO AWAY FRANKIE
Ben	Whirlwind	Nice - play games and sports
*Cool	Dreamer	Melly and Ranulph are you guys okay with what's going on?
*Diamond	Indeed	Haha, Ok?
Ranulph	Navigata	Yep
Ben	Whirlwind	Haha Frankie you are supposed to partner with someone
Melly	Covert	Yeah
Ben	Whirlwind	And say stuff about each other
Frankie	Highland	Well I don't know what happened...
*General	Ward	I coded the shooting incident as basically friendly as the balls appeared to bounce off like marshmallows...got me wondering where I might obtain such an implement
*Diamond	Indeed	You can introduce me as someone who just materialised into a seat on the island and was almost crushed by some large object that shot out of Bute and am totally amazed by the amount of building that took place on the island over the last week
Bute	Lyros	Come sit
*Diamond	Indeed	The kids are figuring this stuff out a lot faster than I am
*General	Ward	There was an incident a long time ago where a RC member was able to move the landscape which felt like an earthquake till *Fluffy stopped the permission to move the terrain
Ben	Whirlwind	Y'all are speakin'?
*Diamond	Indeed	Really? That sounds exciting
*Cool	Dreamer	All okay now?
Bute	Lyros	Let's just type
Frankie	Highland	Ok
Bute	Lyros	Favourite Singer?
Frankie	Highland	Should we Skype?
*Joseph	Stellar	Is some one using audio?
Ranulph	Navigata	Hey
*General	Ward	Diamond and I formed a pair while I assume the others also paired off...we are working on the task you created of how to introduce one another...time is flying here...I doubt each pair will have the time needed to report back
*Joseph	Stellar	What was decided?
*Cool	Dreamer	General and Diamond left to introduce each other or to learn about each other
*Cool	Dreamer	Introduce later
*Joseph	Stellar	And everyone else?
*Cool	Dreamer	Frankie and Ben flew off
*Cool	Dreamer	Ranulph and Melly I think are going to introduce each other
*Cool	Dreamer	I think General and Diamond left before we decided a time to meet back
Bute	Lyros	Bute Lyros I am 15 I have 3 dogs. I like photography. My favourite subjects in school are Spanish...
*Joseph	Stellar	I will quickly find him and be back in one minute

*Diamond	Indeed	It appears that the others are using voice
*Joseph	Stellar	Not sure you'll be able to do anything?
*Mountain	Crease	Hi Cool, how are you? Would you like to catch up?
Ben	Whirlwind	Frankie can you see this?
*General	Ward	Good diagnosis...I had not thought of that possibility...
*Cool	Dreamer	Have we decided a time to all meet back up?
Ranulph	Navigata	Me and Melly are ready when everyone else is
*Diamond	Indeed	Perhaps try to get everyone back together to do the introductions?
Ben	Whirlwind	I am 15 have 2 dogs I like football rugby and water polo
*Mountain	Crease	There are a lot of interesting boards I see
Bute	Lyros	Yes
*Mountain	Crease	How did the video boards go?
Frankie	Highland	Yes
*Mountain	Crease	The time is ticking away
*Mountain	Crease	Usual story
*Cool	Dreamer	True
*Joseph	Stellar	Ok shall we start the intros?
*Mountain	Crease	Always takes time to orientate and get organised
Ranulph	Navigata	Who would like to begin
Ben	Whirlwind	Umm second life is installing something should I do it and reset Second Life?
*Mountain	Crease	Yep, let's start
Bute	Lyros	I'm introducing Frankie
*Joseph	Stellar	Go for it

student numbers since workshop 2. One of the students, who attended only occasionally, had mastered the art of scripting artefacts and customising his avatar appearance much more than the other students. One of the tutors (Mountain Crease) was meeting some of these students for the first time. The workshops lasted for one hour and tended to run to 500 lines of text.

Table 1 shows the results for coding the utterances for the entire workshop. We can see that at this point 83% (102/123) of the social talk is coming from the mentors, who also contributed 70% of the total utterances (325/462). However, because of the uneven and varying attendance by young people and mentors across the workshop series, it was difficult to see any detailed trends in these figures. For example, in the next workshop, there were 557 utterances, 278 (50%) of which were contributed by young people; 146 (53%) of these were social.

Tables 2–4 provide a chronological sequence of extracts from key events in workshop 15. Table 2 (Avatars, scripting and play) shows an extract from an early part of workshop 15, as the meeting was starting, in which either Bute Lyros or Ben Whirlwind (or both of them) has scripted a large gun, that they were wielding. Most of the extract is a social exchange, consisting of greetings, but there are also hints of gaining personal insight (GPI) beginning to emerge as an utterance theme for these two young people. Because these events are happening in real time, and there is no visual record of most of them – only the text transcript – the exact details of the circumstances are not always clear. Cool Dreamer, a member of the mentor team, had not noticed the gun at all (*General Ward – Have you seen Bute's gun?). However, it is clear that the young people are enjoying,

modifying the appearance of their avatars and playing with some artefacts – musical instruments, the gun and many other items on the island – that they have created using the ILI2 scripting language. The gun had been scripted prior to the meeting. There is also excitement around Melly Covert's new avatar 'look', and general confusion about where the other group members are located on the ILI2 island (equivalent in scale to several thousand square metres of real space and populated with hills, buildings and trees). Bute's exchange with General Ward is coded as an early example of GPI as they briefly reflect together on Bute's new appearance. Bute's and Ben's GPI utterances in this workshop represent nearly 50% (23) of the total GPI utterances of all attendees. Bute, in particular, is reflective and thoughtful about activities and also the most expressive member of the group on this occasion (Table 2).

As the workshop progressed, a mentor appeared who had not visited ILI2 for a while. In Table 3 (Conflicts of time and value) Mountain Crease introduced herself to the group. She had not experienced some of the recent playfulness of the young people in the group, nor the earlier appearance of Bute and Ben's gun in the current workshop. There was crosstalk in this extract about the absent young people, the presence of the gun, the current size of the group and technical issues about access to the ILI2 space. Part of the cause of the constant changing of the composition of the group was the time difference between the UK (where the research team were physically located) and Trinidad (where the young people were physically located). The mid-evening workshops -in UK time, corresponded with the end of school in Trinidad. This resulted in time conflicts – for example, relating to extra-curricular activities in school. It meant that the size and composition of the group changed and forward planning became challenging for everyone. Yet, at the same time, the powerful immersive presence created by the virtual environment quickly led to an emotional and a cognitive engagement among those who were present. For example, Mountain was quickly disturbed by Bute and Ben's gun pointing at her, and politely asked them to put it away – even though this is a virtual environment. The intentions of their playfulness were not yet clear to her. Mentors Joseph Stellar and Cool Dreamer had planned an introduction activity, but this was also affected by late arrivals. Another important feature of this extract is that conflicts were beginning to emerge in the group that appeared to be connected to several creative events that occurred later (coded CASC). While 25% of this extract was social talk (SC), 69% was dedicated to finding solutions to problems (FSP), connected with meetings and scheduling. The remaining 6% was coded for conflicts that may give rise to creative activity (CASC). This is the short section about the gun – part of Bute's and Ben's scripting activities – they had created the gun and went on to script many other animals, birds, cars, costumes for their avatars, sometimes in response to discussions and tensions that emerged as the group continued to work (Table 3).

As the workshop progressed, the conversation themes became more interwoven and disjointed. Table 4 (Confusion, history, meetings) is an extract from the mid-point of the meeting. Frankie Highland had arrived as the introductions activity was beginning. He expressed confusion just as Ben explained (for the first time) that *he* shot the gun, and Bute told Frankie to 'go away'. Mentors General Ward and Diamond Indeed started a conversation about the gun incident, interpreting it as friendly and related it to an earlier episode in which another group member (in a different group) 'moved the landscape' (that is, re-scripted part of the island, changing its appearance and terrain dramatically during a workshop). Ben and Bute wanted to move the conversation on from this ('Come sit; Let's just type'). Then the conversation moved to the introductions. But at the same

time, someone in the group started using audio to communicate. This was an ongoing significant point at which the research agendas of the young people and the adult research team were in tension (*Frankie Highland: Should we Skype? *Joseph Stellar: Is someone using audio?*). As part of research procedures the project needed to ensure that all text-based interactions were recorded by the content analysis system on ILI2. Without this, we would have no record of these interactions for analysis or to comply with ethical requirements.

This system could not record audio interactions, so the team established the rule that only text-based interaction was used in the workshops. Some of the young people appeared to use Skype as an alternative means of having audio communications (TRCN – Using Tools, Resources, Contexts, Networks – see Coding Schema Appendix – 2%). Some of the research team members also used this ‘back channel’ to reflect during the workshops. This created many tensions in the research team about the loss of data. It also gave the young people an opportunity to pursue their own research agenda in more privacy.

Discussion and conclusions

This paper is based upon research undertaken for the Inter-Life Project between 2008 and 2011/12. This paper attempted to present and analyse two concerns. The first was to explore the conceptual and theoretical challenges of researching alongside virtual youth by elaborating four intersecting but, in some ways, discordant key themes. Each of these themes both informed the entire Inter-Life Project and was also an area of contestation, discussion and focus within the team, and the project, during its life. Each represents an attempt to articulate and exemplify a dialectical relationship between the reality and the conceptual/theoretical complexity of this kind of research. The second concern was to provide some evidence from the Inter-Life Project to attempt to engage with and illustrate these complexities, and the tensions and realities with which they are inextricably linked. While discussing the second concern we have also attempted to provide some analytical detail of the activities and findings of the project. We argue that using virtual worlds (via the Internet) may be an important context for research with young people and ICTs. Young people’s use and understanding of the Internet is still poorly understood. More specifically, for us, the development of critical understanding by young people through new forms of interaction, as well as issues of expression, control, creativity and the development of voice may all be areas where such research could be valuable. The potential for creative expression by young people using the Internet is woefully under-researched and underdeveloped. The position outside of the USA and Europe is even less well understood. The use of virtual worlds in such work is almost entirely novel.

We have also argued that the subjectivities of young people may be an important element of understanding youth in the process of transition. Understanding these subjectivities within a wider framework than the family may be enhanced, we think, through the use and development of AT. We used it to focus on activity in young people’s creative learning spaces and their interactions and motivations (agentic elements) as they engaged in their own research activity. Virtual worlds such as Inter-Life may also offer young people opportunities to explore and to develop networks of support for the acquisition of transition skills that can be also used in a wide range of real-world settings.

This is evidenced in the workshop under discussion and is also clearly visible in other workshops reported elsewhere (Lally and Sclater 2012, 2013).

Another dialectical theme in our work has centred on the challenges and opportunities for theorisation and participation in research by young people in ICT settings. AT has, we think, served as a rich theoretical resource for this challenge. In part, it points towards the use and understanding of tools to mediate personal and collective goals during activity. We used a wide range of creative practices as tools – in the workshop example featured in the paper, these were photography and filmmaking. The young people used them as tools for their own research investigations. As we established a virtual research community in Inter-Life, a major challenge was to facilitate the participation of the young people with whom we worked in the development of their own research agenda and its investigation. We have illustrated some of the realities of this process. In the featured workshop, we were at an early stage of development of the community. Photography was used creatively to share and understand the world and cultural settings in which the young people are living. It was also valuable to enable the community to ‘get started’. However, many issues began to emerge as the young people began to take control of their own agenda. We attempted to steer this in a staged way, as outlined by Rudduck’s ladder of engagement. However, development was uneven, not least because the composition of the group was variable and to some extent unstable.

It sometimes took a long time for any focus to emerge in the group. This was often lost by changes in group membership. However, the virtual world offered many creative possibilities and stimuli. Some of the young people were very quick to learn the scripting language that allowed them to manipulate the virtual world environment and appearance and other aspects of the space, in ways that suited them and gave them a sense of control. For example, the power to change their avatar appearance was very engaging for young people and generated much collaborative activity and interaction. The virtual world environment also stimulated a wide range of playful behaviours that created a positive atmosphere in the group. As the group matured, some members became more expressive and confident while others simply disappeared. Group members learned important negotiation skills. These were used to resolve conflicts of time and of value as they acquired confidence with the virtual world technology. As young people claimed the VRC space, they began to use the scripting and the technology for their own purposes – sometimes in conflict with or subverting the agenda of the adult researchers. At the same time, we began to see threads of creativity emerging through the films and photographic work as well as the dialogue that were facilitated by the creative practices that the research team supported.

In conclusion, we think that virtual worlds may offer very considerable opportunities for adult researchers to work alongside young people as participants in their own research and each other’s agendas. We contest that this work is at the intersection, though sometimes with degrees of discordance and incoherence of a complex of conceptual, theoretical and methodological issues. It is our intention to investigate further how researching the subjectivities of youth in ICT settings can inform the development of both policy and practice in relation to youth. As McChesney has said:

we can (our emphasis) cut through much of the mythology and hype surrounding our era, and have the basis for a much more accurate understanding of what is taking place... to organise effectively for social justice and democratic values.

The use of virtual worlds and creative practices with young people is, we contest, a powerful combination in this work. Together they provide a set of tools with which young people and adult researchers can ‘cut through the mythology’.

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References

- Ahier, J., and R. Moore. 1999. “Post-16 Education, Semi-Dependent Youth and the Privatisation of Inter-Age Transfers: Re-Theorising Youth Transition.” *British Journal of Sociology of Education* 20 (4): 515–530. doi:[10.1080/01425699995245](https://doi.org/10.1080/01425699995245).
- Baird, D. E., and M. Fisher. 2010. “Pedagogical Mash Up: Gen Y, Social Media, and Learning in the Digital Age.” In *Social Computing: Concepts, Methodologies, Tools, and Applications*, edited by S. Dasgupta, 2023–2044. Milwaukee: Milwaukee Applied Technical College. doi:[10.4018/978-1-60566-984-7.ch133](https://doi.org/10.4018/978-1-60566-984-7.ch133).
- Beck, U. 1992. *Risk Society: Towards a New Modernity*. London: Sage.
- Biesta, G. 2006. “What’s the Point of Lifelong Learning if Lifelong Learning Has No Point? On the Democratic Deficit of Policies for Lifelong Learning.” *European Educational Research Journal* 5 (3): 169–180. doi:[10.2304/eeerj.2006.5.3.169](https://doi.org/10.2304/eeerj.2006.5.3.169).
- Brabazon, T. 2007. *The University of Google: Education in the (post) Information Age*. Farnham: Ashgate.
- Buckingham, D., S. Banaji, D. Carr, S. Cranmer, and R. Willett. 2005. *The Media Literacy of Children and Young People: A Review of the Research Literature*. London: Institute of Education.
- Burton, D., M. Smith, and K. Woods. 2010. “Working With Teachers to Promote Children’s Participation Through Pupil-led Research.” *Educational Psychology in Practice* 26 (2): 91–104. doi:[10.1080/02667361003768419](https://doi.org/10.1080/02667361003768419).
- Byron, T. 2008. *Safer Children in a Digital World: The Report of the Byron Review: Be Safe, Be Aware, Have Fun*. London: Department for Children, Schools and Families.
- Darts, D. 2006. “Art Education for a Change: Contemporary Issues and the Visual Arts.” *Art Education* 59 (5): 6–12.
- De Laat, M. F., V. Lally, L. Lipponen, and P. R. J. Simons. 2007. “Online Teaching in Networked Learning Communities: A Multi-Method Approach to Studying the Role of the Teacher.” *Instructional Science* 35 (3): 257–286. doi:[10.1007/s11251-006-9007-0](https://doi.org/10.1007/s11251-006-9007-0).
- Doyle, D. 2010. “Immersed in Learning: Supporting Creative Practice in Virtual Worlds.” *Learning, Media and Technology* 35 (2): 99–110. doi:[10.1080/17439884.2010.494418](https://doi.org/10.1080/17439884.2010.494418).
- Dwyer, P., and J. Wyn. 2001. *Youth, Education and Risk: Facing the Future*. London: Routledge-Falmer.
- Engeström, Y. 2001. “Expansive Learning at Work: Towards An Activity Theoretical Reconceptualisation.” *Journal of Education and Work* 14 (1): 133–156. doi:[10.1080/13639080020028747](https://doi.org/10.1080/13639080020028747).
- Engeström, Y. 2008. “The Future of Activity Theory: A Rough Draft.” *Keynote Lecture at ISCAR Conference (San Diego)*, September 8–13: 1–33. Accessed March 14, 2013. http://lchc.ucsd.edu/mca/Mail/xmcamail.2009_01.dir/pdfx2SyzoolF.pdf.

- Engeström, Y. 2009. "The Future of Activity Theory: A Rough Draft." In *Learning and Expanding with Activity Theory*, edited by A. Sannino, H. Daniels, and K. D Gutierrez, 303–328. Cambridge: Cambridge University Press.
- Fielding, M. 2007. "Jean Rudduck (1937–2007) 'Carving a New Order of Experience': A Preliminary Appreciation of the Work of Jean Rudduck in the Field of Student Voice." *Educational Action Research* 15 (3): 323–336. doi:10.1080/09650790701514234.
- Fielding, M. 2010. "Transformative Approaches to Student Voice: Theoretical Underpinnings, Recalcitrant Realities." *British Educational Research Journal* 30 (2): 295–311. <http://www.jstor.org/stable/1502226>.
- Freitas, S., and F. Liarokapis. 2011. "Serious Games: A New Paradigm for Education?" In *Serious Games and Edutainment Applications*, edited by M. Ma, A. Oikonomou, and L. C. Jain, 9–23. London: Springer.
- Furlong, A. 2011. "Digital Capital and Inequality in Late Modernity." Future of Youth Sociology Symposium at the Australian Sociological Association Conference (TASA), Sydney, December 2010. Accessed April 25, 2013. http://andyfurlong.com/pgm-download_media.php?name=TASA_discussant.docx.
- Furlong, A., and F. Cartmel. 1997. *Young People and Social Change*. Buckingham: Open University Press.
- Furlong, A., and F. Cartmel. 2006. *Young People and Social Change*. Buckingham: Open University Press.
- Garber, E. 2004. "Social Justice and Art Education." *Visual Arts Research* 30 (2): 4–22.
- Giddens, A., and C. Pierson. 1998. *Conversations with Anthony Giddens: Making Sense of Modernity*. Redwood, CA: Stanford University Press.
- Halewood, N., and C. Kenny. 2008. "Young People and ICTs in Developing Countries." *Information Technology for Development* 14 (2): 171–177. doi:10.1002/itdj.20093.
- Halverson, C. A. 2002. "Activity Theory and Distributed Cognition: Or What Does CSCW Need to DO With Theories?" *Computer Supported Cooperative Work* 11 (1–2): 243–267. doi:10.1023/A:1015298005381.
- Jonassen, D. H. 2000. "Revisiting Activity Theory as a Framework for Designing Student-centered Learning Environments." In *Theoretical Foundations of Learning Environments*, edited by D. H. Jonassen and S. H. Land, 89–121. Mahwah, NJ: Lawrence Erlbaum.
- Jonassen, D., and L. Rohrer-Murphy. 1999. "Activity Theory as a Framework for Designing Constructivist Learning Environments." *Educational Technology Research and Development* 47 (1): 61–79. doi:10.1007/BF02299477.
- Kaptelinin, V., and B. A. Nardi. 2006. *Acting with Technology*. London: MIT Press.
- Kellett, M. 2005. *Children as Active Researchers: A New Research Paradigm for the 21st Century?* London: ESRC. Accessed January 13, 2013. <http://eprints.ncrm.ac.uk/87/1/MethodsReviewPaperNCRM-003.pdf>.
- Kellett, M. 2009. "Children as Researchers: What We Can Learn from Them About the Impact of Poverty on Literacy Opportunities?" *International Journal of Inclusive Education* 13 (4): 395–408. doi:10.1080/10236240802106606.
- Lally, V., and M. Sclater. 2012. "The Inter-Life Project: Inter-Cultural Spaces for Young People to Use Creative Practices and Research to Assist with Life Changes and Transition." *Research in Comparative and International Education* 7 (4): 480–502. doi:10.2304/rcie.2012.7.4.480.
- Lally, V., and M. Sclater. 2013. "The Inter-Life Project: Researching the Potential of Art, Design and Virtual Worlds as a Vehicle for Assisting Young People with Key Life Changes and Transitions." *British Journal of Guidance and Counselling* 41 (3): 318–338. doi:10.1080/03069885.2013.773582.
- Lin, C. C., K. Grauer, and J. C. Castro. 2011. "There Is Nothing Else to Do But Make Films: Urban Youth Participation at a Film and Television School." *International Journal of Education & the Arts* 12 (1.8): 1–17. Accessed January 30 2012. <http://www.ijea.org/v12si1/>.
- Liu, F. 2011. "Wired for Fun: Narratives by Members of China's E-Generation." *Young* 19 (1): 69–89. doi:10.1177/1103308811001900105.
- Livingstone, S. 2008. "Afterword: Learning the Lessons of Research on Youth Participation and the Internet." *Journal of Youth Studies* 11 (5): 561–564. doi:10.1080/13676260802283016.
- Livingstone, S., and M. Bober. 2004. *UK Children Go Online: Surveying the Experiences of Young People and Their Parents*. London: London School of Economics and Political Science.

- Ma, M., A. Oikonomou, and L. C. Jain, eds. 2011. *Serious Games and Edutainment Applications*. London: Springer.
- Mallan, K. M., P. Singh, and N. Giardina. 2010. "The Challenges of Participatory Research with 'Tech-Savvy' Youth." *Journal of Youth Studies* 13 (2): 255–272. doi:[10.1080/13676260903295059](https://doi.org/10.1080/13676260903295059).
- McChesney, R. W. 2001. "Global Media, Neoliberalism, and Imperialism." *Monthly Review – New York* 52 (10): 1–19.
- McIntyre, D., D. Pedder, and J. Rudduck. 2005. "Pupil Voice: Comfortable and Uncomfortable Learnings for Teachers." *Research Papers in Education* 20 (2): 149–168. doi:[10.1080/02671520500077970](https://doi.org/10.1080/02671520500077970).
- Moore, P. 1995. "Learning and Teaching in Virtual Worlds: Implications of Virtual Reality for Education." *Australian Journal of Educational Technology* 11: 91–102.
- Ng, R. 1997. "A Woman Out of Control." In *Radical In(ter)ventions*, edited by A. Bryson and S. de castell, 189–205. New York: SUNY Press.
- Prensky, M. 2001a. "Digital Natives, Digital Immigrants Part 1." *On the Horizon* 9 (5): 1–6. doi:[10.1108/107481201110424816](https://doi.org/10.1108/107481201110424816).
- Prensky, M. 2001b. "Digital Natives, Digital Immigrants Part 2: Do They Really Think Differently?" *On the Horizon* 9 (6): 1–6. doi:[10.1108/107481201110424843](https://doi.org/10.1108/107481201110424843).
- Prensky, M. 2005. "Listening to the Natives." *Educational Leadership* 63 (4): 8–13.
- Prensky, M. 2008. "The Role of Technology in Teaching and the Classroom." *Educational Technology* 48 (6): 1–3. Accessed November 26, 2012. http://www.marcprensky.com/writing/Prensky-The_Role_of_Technology-ET-11-12-08.pdf.
- Prensky, M. 2009. "H. Sapiens Digital: From Digital Immigrants and Digital Natives to Digital Wisdom." *Journal of Online Education* 5 (3): 1–9. Accessed November 19 2012. <http://www.wisdompage.com/Prensky01.html>.
- Prensky, M. 2010. *Teaching Digital Natives: Partnering for Real Learning*. London: Sage.
- Roberts, P. K. 2007. "Youth Transitions and Generations: A Response to Wyn and Woodman." *Journal of Youth Studies* 10 (2): 263–269. doi:[10.1080/13676260701204360](https://doi.org/10.1080/13676260701204360).
- Roth, W.-M. 2009. "On the Inclusion of Emotions, Identity, and Ethico-Moral Dimensions of Actions." In *Learning and Expanding with Activity Theory*, edited by A. Sannino, H. Daniels, and K. D. Gutierrez, 53–71. Cambridge: Cambridge University Press.
- Rudduck, J. 1984. "Introducing Innovation to Pupils." In *Alternative Perspectives on School Improvement*, edited by D. Hopkins, and M. Wideen, 53–66. Lewes: Falmer Press.
- Rudduck, J. 2002. "The SERA Lecture 2002: The Transformative Potential of Consulting Young People About Teaching, Learning and Schooling." *Scottish Educational Review* 34 (2): 123–137.
- Sagan, O. 2008. "Playgrounds, Studios and Hiding Places: Emotional Exchange in Creative Learning Spaces." *Art, Design & Communication in Higher Education* 6 (3): 173–186. doi:[10.1386/adch.6.3.173_1](https://doi.org/10.1386/adch.6.3.173_1).
- Sclater, M. 2011. "Theorising from Bricolage: Researching Collaboration in Art and Design Education." In *Applying Theory to Educational Research: An Introductory Approach With Case Studies*, edited by J. Adams, M. Cochrane, and L. Dunne, 158–176. London: Wiley.
- Sclater, M. F. 2007. *Freedom to Create? Computer Supported Collaborative Learning in Art and Design Education (unpublished PhD)*. Glasgow: University of Glasgow and Glasgow School of Art.
- Sclater, M., and V. Lally. 2009. "Bringing Theory to Life: Towards Three-Dimensional Learning Communities with 'Inter-Life'." In *Fostering Communities of Learners: 13th Biennial Conference for Research Onlearning and Instruction (EARLI)*, edited by G. Rijlaarsdam, 190. Amsterdam: Graduate School of Teaching and Learning, University of Amsterdam.
- Selwyn, N. 2009. "The Digital Native-Myth and Reality." *Aslib Proceedings* 61 (4): 364–379. doi:[10.1108/00012530910973776](https://doi.org/10.1108/00012530910973776).
- Small, G. W., and G. Vorgan. 2009. *iBrain: Surviving the Technological Alteration of the Modern Mind*. New York: Harper.
- Steinkuehler, C. A. 2006. "Massively Multiplayer Online Video Gaming as Participation in a Discourse." *Mind, Culture, and Activity* 13 (1): 38–52. doi:[10.1207/s15327884mca1301_4](https://doi.org/10.1207/s15327884mca1301_4).
- Tapscott, D. 2009. *Grown Up Digital*. New York: McGraw-Hill.
- Technology Enhanced Learning: UK's Teaching and Learning Research Programme. 2013. Accessed March 20. <http://www.tel.ac.uk>.

- Thomas, D., and J. S. Brown. 2009. "Why Virtual Worlds Can Matter." *International Journal of Learning and Media* 1 (1): 37–49. doi:[10.1177/1555412006286688](https://doi.org/10.1177/1555412006286688).
- Wartella, E. A., and N. Jennings. 2000. "Children and Computers: New Technology. Old Concerns." *The Future of Children* 10 (2): 31–43. doi:[10.2307/1602688](https://doi.org/10.2307/1602688).
- Winnicott, D. W. 1982. *Playing and Reality*. 1971. New York, NY: Tavistock.
- Wyn, P. J., and D. Woodman. 2006. "Generation, Youth and Social Change in Australia." *Journal of Youth Studies* 9 (5): 495–514. doi:[10.1080/13676260600805713](https://doi.org/10.1080/13676260600805713).
- Wyn, J., and D. Woodman. 2007. "Researching Youth in a Context of Social Change: A Reply to Roberts." *Journal of Youth Studies* 10 (3): 373–381. doi:[10.1080/13676260701342624](https://doi.org/10.1080/13676260701342624).

Appendix. Coding Schema Showing 'High Level' Coding Categories.

Activity in virtual world	Code abbreviation
Social and/or Community Actions	SC
Conflict in Activity Stimulates Creativity	CASC
Activities Promoting Confidence	APC
Gaining Personal Insight	GPI
Finding a Solution to a Problem	FSP
Feeling Better About Something	FBS
Acquiring New and Relevant Skills	ANRS
Using Tools, Resources, Contexts, Networks	TRCN
Gaining New Perspectives – Reconfiguring	GNP-R
Deep Learning	DL
Mapping onto the Real World	MRW