Debating Digital Childhoods: Questions concerning technologies, economies and determinisms

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Abstract
The learning child, the child that is the object of interest through modernity and into mutated modernity, in the knowledge economy, is a digital age identity of great interest. Talk about childhood and the digital age invokes a range of questions about what is happening at this time and with these technologies and that creates more or less of a distinction that makes it both possible and necessary to start or to continue talking. This article identifies and engages with different positions in the debates on digital childhood. A range of philosophical questions are presented and their importance to the debates are explored. A series of metaphors and examples are presented in order to play, in a serious way, with the meanings and experiences and narratives of digital childhoods. To explore these questions it is worth considering a politics of digital childhoods and the ebb and flow of perceived tensions—of the sense that there is a problem with other ways of thinking about digital childhoods that are not accepted, not approved. That this talk might have the quality of a debate orients us to the probability that there will be significant differences in relation to not just the positions that can and should be taken in relation to children’s digital lives but also what is meant by a digital age and digital lives. The focus of this article is constructing an overview of the debates around digital childhood and the ways in which the work of a philosophical line of questioning might contribute to the debate.

Keywords: educational technology, Philosophy of Education, openness, educational practice

Introduction
Media debate in New Zealand around the use of digital bracelets to replace paper-based behavioural motivation for students (Napier, 2014) provides evidence of the narrowness with which people think about technology. The drama unfolds as a concern with some
new invasive relationship between machine and human. The focus on the bracelet as a new and concerning technology, in this instance, reveals that the star chart and the certificate of achievement are not technologies of concern. What is not asked is why we might think about it being acceptable to have certain behavioural management technologies in an ‘educational’ setting. In one sense then the bracelet reveals what is assumed and what is forgotten about technologically orienting relations. More than this, the bracelet, as a technology, reveals something about being human. The bracelet then leads to questions about how an understanding of what technology is impacts on what is said about technology and what is proposed to be done about technology in relation to childhood.

This article works through just some of the questions that this bracelet reveals. The next section maps out some context through looking at different positions on digital childhoods and critiques tensions between positions that require some kind of navigation for children, for families and communities, and for policy-makers. While introducing some of the often competing positions in debates on digital childhoods, the purpose of this paper is to explore the ways in which thinking about technology impacts on the ways in which the debates occur. The third section sets up a methodological relationship to debating the different and often competing positions on digital childhoods through an orientation to the very question of technology. Ideas of being both a learner and a teacher of technology are analysed with a view to taking an ‘open’ and ‘questioning’ position in relation to technology and the debates on digital childhoods. The article concludes with a critique of the idea that human life is characterized as new and rapidly changing. The purpose here is to reveal the scope of questioning that can inform critical debate about relationships to, with, and around technology.

At times this article will appear to come from the position of a Luddite. However, not a Luddite in the common and highly stigmatized sense. Rather, the concern is interrupting a technological determinism that is evident in discussions about digital childhoods, determinisms such as: ‘the technological society is here to stay so we just have to get on with making the best of it’; or ‘digital literacies are a new source of inequity and so all children must have the same opportunities to develop such literacies’; and also ‘the child needs to be protected from the addictive nature of new media in order to engage with their natural world’.

**Views on Digital Childhoods**

Digital childhoods are experienced in a digital age. This age is typically characterized in relation to digital media that are regarded as in a state of rapid transformation (see for instance Bolstad *et al*., 2012; Loveless & Williamson, 2013) and as such have encouraged thinking of the present as a time of change unlike any other time of change. The digital age is more than the hard and software, it is also a way of thinking about life and human being that has been associated with cybernetic thought (Gibbons, 2007; Lovelace & Williamson, 2013). This age does not simply refer to digital technologies—consider for instance how we relate to paper-based communication in the digital age, and whether we read text differently in a digital age regardless of whether it is electronic or paper-based. In this way the digital age is not something that can be dismissed as irrelevant for those who have limited
or no access to (or benefit from) new media. Their apparently digitally-deprived lives are defined in relation to this apparent digital age.

Research specifically focused on new media for young children is being generated by expanding networks and organizations providing guidance and content for parents and teachers when choosing new media experiences for their young child. Engagement with new media in a wide range of contexts has been considered beneficial for children both in terms of the child’s development and learning in its own right, that is, for the quality of their present (see for instance Oldridge, 2010; Sandvik, 2012) and also for their future learning (see for instance Bolstad, 2004). Any and all positive experiences with new media are assumed to lay foundations for an enduring and sustaining attunement to the use of new media in rich, creative, innovative ways of learning about the world, about one’s self, and about the role of new media in the world. More than this, Loveless and Williamson (2013) and Oldridge (2010) recognize that new media are often argued to be critical to a child’s wellbeing, mitigating against economic disadvantages through promoting techno-literacy.

What is not seen in this position, or not opened up, is the construction of technology in particular ways. For instance, ‘... the popular term “technology-enhanced learning” promotes a highly normative and positive view of technologies as an “enhancement” to learning’ (Loveless & Williamson, 2013, pp. 7–8). This would appear to be why the word ‘affordance’ typically means ‘benefits’ and not interface, or behaviour, or relationship. In addition, much of the research on the affordances (meaning benefits) of digital childhoods is based on designed interventions (Loveless & Williamson, 2013) which take the digital world and the digital child to be unquestionably good things.

Contrasting positions on digital childhoods generally argue that screen mediated virtual worlds are disordering a child’s senses and nature (see for instance Buckingham, 2000; House, 2011; Stevens, 2014). ‘In the face of increasingly digitally-mediated education about nature, the pro-nature proponents argue that children need to be returned to nature in order to learn directly from it’ (Taylor, 2013, p. 47). There is within this thinking an assumption regarding the ordering of the senses and valued dispositions to the world that are regarded as either not possible to learn through new media or not appropriate to learn through new media at particular times of life. The construction of interest here is that of the natural child. Human life needs some space set aside before immersion in technology, and here the ‘screen’ and the ‘brain’ operate as somehow attracted poles that need to be mediated. Neuroscience provides important evidence of the right kind of mediation through indications of the sensitivity of the plasticity years of neurological development (see for instance Blythe, 2011).

Both arguments for and against tend to require a level of overlooked complicity or forgetfulness as well as a possible overestimation of the nature and cause of a child’s advantages and disadvantages. The apparatus of digital childhood is seen to be a relatively simple child and machine relationship, such that the politics and economics that shape the relationship are out of the frame of questioning, just as the nature of the child as playing learner, or language learner, is out of the frame when talking about the role of education in growing up to be a particular kind of productive and happy citizen. That digital technologies are concomitantly associated with information rich networked egalitarian futures connecting home and school in a productive child/community-centred network, and an
obese, lazy, irradiated antisocial generation of ‘unpaid digital labourers’ (Peters & Bulut, 2011) suggests that binaries are largely unhelpful. Taylor (2013, p. 111) asks ‘should we be worried by the fact that young children seem to be so at ease with technoculture?’ Critical thinking required of adults in this relationship involves moving beyond yes or no question asking to questions concerning the sources of worries and motivations, and the sources of beliefs about the very nature of childhood and technology.

Technologically Inscribed as Human: The Cases of Cyborg Babies and Technology Teachers

The big black box in 2001: A Space Odyssey (Kubrick, 1968) is a deus ex machina that is present at the beginning of the story. The story tells us that an alien artefact introduces an idea to an ape: the idea of technology. A bone becomes something to collect, something to hold on to, something to use. The bone tool makes something new and possible in terms of presence in the world, of use of tools that are ready to hand for a community of apes, and in terms of cultural transmission, of that presence that lasts beyond the lifespan of the user (see for instance Gorodi, 2014, on the work of Stiegler). The bone as technology also inscribes upon the bones in the tool users such that their own, alive, bones, have living to do. In this sense, technology in its essence reveals something through its embedding in the organism—this is an essence of technology that continues to cause great concern for a kind of thinking that regards human and technology as fundamentally disconnected.

Think for instance of what happened when the aliens gave ‘us’ the idea of the Radio Frequency Identification Device (RFID). The implanting of a chip for ‘comprehensive monitoring, repair, and improvement of all human biologic systems—basically, an enhanced quality of life’ (Bawa & Johnson, 2007, p. 881) has met with economic investment, social and political resistance and scholarly interest. The idea of implanting a chip into a baby, whether to track that child’s whereabouts, or for gathering biometrics, presents new ethical questions (Bawa & Johnson, 2007) only if we choose to consider that the body of the infant is not already inscribed and invaded through the softer technologies of social and political and economic biometrics (see for instance Locke, 2012). In other words the nature of our concerns about the use of any new biotechnologies is influenced by the ways in which we make sense of the human condition as technologically inscribed. The point here is that a kind of forgetfulness (Heidegger, 1977) is in play that might be revealed by the RFID. When revealed, other things are revealed: our thinking about, and relationship to, the entitlement of the citizen to privacy, the sale of useful data about an individual, and the continuous surveillance of the vulnerable child. The RFID does more than inscribe something new into the child, it retells a very old story about inscription.

How am I inscribed by technology? I teach at a university of technology and I teach technology papers. I expect many university lecturers, especially those lecturers engaging in technologically-oriented learning, and many secondary, and probably increasingly many primary school teachers are familiar with the student’s quickness to notice any kind of technological problem or break down, or any gap in one’s techno-knowledge. Yet technological ‘problems’ provide important lines of questioning in relation to the study of and the study with digital childhoods noted —debates that do more inscribing on the teacher and the learner.
Teachers are being called upon to ‘revolutionize’ not just the technology classroom but all classes in all subjects on the grounds that knowledge as we know it is not what used to be known. New knowledge relationships reflect new information flows, new social, political, technological and economic conditions, and new ways of thinking about the purpose of education (Bolstad et al., 2012; Loveless & Williamson, 2013). The teaching of technology then occupies some kind of place in the spotlight in relation to how it responds to educational futures. For a start, how does the teacher of new media technology (software for instance) respond to the expectation that no specific technology should be the object of learning on account of its imminent, planned, and exploited obsolescence?

Meanwhile, from the perspective of the learner, how does the experience of technology in the classroom shape, reinforce, or reveal, different relationships to technology? From this perspective, something is going on for a learner when they become frustrated by their teacher’s apparent inability to get a video clip going with the sound at the right volume and cued up properly. The problem comes out of their mouths in the sentence: ‘you are supposed to be the expert’. Yet an idea within twenty-first century education discourse is that the teacher give up on the idea of expertise, not just because of a functional impossibility but also because of new pedagogical expectations regarding the relationship between the child and adult, teacher and learner (see for instance Biesta, 2014; Bolstad et al., 2012; Loveless & Williamson, 2013). So an element of the task at hand for teacher and learner in debating digital childhoods is to keep in mind that technology is something to study, to question, more than it is something to learn how to teach with, which is not to suggest that learning how to teach with smart phones is not of value but rather that there is a deeper set of relationships to explore.

In New Zealand this position is supported by the Ministry of Education’s position on education and the future: that known contemporary skills and knowledge will not sufficiently equip learners for the future, and so education is about preparing for the unpredictable (see for instance Bolstad et al., 2012). One of the skills to equip the students with is a capacity to wonder why they hold on to particular assumptions about what it means to know and study technology, to wonder what influences the ways in which they react to their environment as a technological environment, and to creatively imagine how they might work with the many different views of technology that they will encounter. This kind of study of technology sets up the importance of an enduring responsiveness to the world. An enduring responsiveness sees beyond a world of technophiles and technophobes; and it sees that the digital technology in their hand is not just the smartphone, it is also the finger pushing the digital image of the button, the network to which they connect, the purpose of their use of the phone, the ways in which their use is trafficked, managed, and recorded, and the ways in which that data then becomes available for exploitation. For teachers in particular this will be an important element of their own development of a curriculum that is rich in technological things and thinking. In other words, that their interest in questioning will inform a questioning-oriented curriculum for children in a digital world.

I am looking here to keep discussions about technology ‘permanently open’ (Foucault, 1989). Experiences of digital learning devices provide evidence of the possibility of being both attracted to and suspicious of technology (we are addicted to some games and not others, we remember fondly some technologies while not others). Variable experiences
emphasize that the child can have multiple and at times contradictory ideas and feelings about technology. And over time this reveals that there is a limit to the kind of technological determinism thesis that operates behind arguments both for and against the use of new media in early childhood.

So, the interest here is in non-deterministic, creative, open and connected relationships with new media, and with one’s self and others within the contexts of new media. It is a resistance to those statements provided in the introduction to this article that suggest an unchallengeable, unquestionable, technological existence. The tools at hand are used to interrupt the workings of some machines and machinations. They make space to ask not just whether there are other ways of thinking about the world but also why it might be that there are ways of talking about technology which suggest a failure to see a free relationship to technology. These tools are the theoretical tools of the philosophy of technology, tools that are important to use in making sense of what technology is, beyond the idea of a tool or instrument, and into the idea of being. These tools create space to negotiate, discuss, and ask questions about digital childhoods without resorting to the kind of polemical arguments that keep policy-makers and parents and teachers hyper vigilant should they be accused of doing entirely the wrong thing for a community’s children.

More than this, the polemics tend to obscure what is driving debates on digital childhood, and attempt to limit any serious, critical attempts to make sense of the essence of technology. Getting to the essence of technology in relation to being comes out of the work of Martin Heidegger in *A Question Concerning Technology* (1977) and so I would like to work very briefly through some of his ideas in order to flesh out a relationship to debating digital childhoods.

Heidegger’s work reveals limitations to the ways in which technology is understood and questioned, and the ways in which these limitations impact upon teaching and learning. He shows the ways in which the idea of technology is taken for granted, and that this taken for grantedness is a quite particular and arguably intentional outcome of modernity in which the notion of progress becomes a legitimation for exploitation of nature and culture. Heidegger sees in Modernity a forgetting of ways to think about technology, a tendency to avoid questioning what technology means beyond a simplistic evaluation of its more or less neutral status as a tool that is used purposefully by humans to shape human endeavour. There also seems to be a general avoidance of looking deeply into why some technologies are taken as accepted and even natural parts of the child’s world, while others are located outside of the natural sphere of the child. Why, for instance, is a robotic baby doll considered more technological and less natural to the child’s play than a rag doll?

This avoidance is particularly the case when either the rag doll or the robotic baby doll is intentionally deployed in a learning environment, supported by theoretical assumptions about the purpose of the technology in relation to the learning of the child. There is in this sense a technological essence to the pedagogical theory in terms of how pedagogies of play (inclusive of pedagogies that focus on the child’s work with new media, and also on those that focus on the child’s unfolding of their play within nature) are a kind of ordering of the child’s world into more or less productive and or progress-oriented behaviours that are observed, assessed and manipulated based on certain assumptions about what is natural, what is technological and what is the social and/or cultural glue that binds nature and technology.
For many commentators, researchers, policy-makers, teachers, parents and of course children, the philosophical questions at work might be seen to give a certain kind of scholarly or intellectual credibility to debates on digital childhoods, but not at the expense of determined action. However, it is important to recognize that the significant tensions, and at times polemics, that are seen to characterize the debates on digital childhoods, engender philosophical questioning as having an important role to play. Taylor (2013) notes that the debates about childhood, nature and culture, typically and actively avoid dispute of the objects of interest. The failure to question leads to the maintenance of binary positions whose only real value is, I think, that they leave a lot of space in between for those who wish to avoid polemics. Through a series of questions about digital worlds and about childhood’s engagement with, in and for that world, communities are presented with a more nuanced, less taken for granted, approach to their experiences of a wide range of new media and in a wide range of contexts. Such questions reveal and if necessary challenge the narratives and values that determine people’s new mediated lives. Strong positions are weakened, not in a negative sense of weakened but rather in, following Gert Biesta (2014), an educational sense of weakened.

When the positions are weak I can talk about both my excitement with regards to digital childhoods and my concern about childhood in a digital world. The work of Heidegger is connected here because it questions the essence of technology and the relationship of that essence to, in this instance, ideas and ideals of being a child. The thoughtful role of philosophy is then to open up discussions, make sense of tensions, and explore what is being NOT talked about, being disregarded, marginalized or simply forgotten.

When England’s Reg Bailey entered the debates on digital childhood with evidence that children, families, and British society, are being harmed by new media (see for instance Stevens, 2014) he expressed a concern, live on breakfast television for the lives of parents as well as children. He said to a parent something like: I don’t want to tell you what to do, and I know that your lives are tough, but please ask questions about the ways in which new media influence your child’s life. That is the Heideggerian position, ask questions, but not questions where you already know what you want to find out. So ask questions about your wooden blocks, your lego blocks, and your tetris blocks. These questions should be asked by the communities that imagine digital childhoods, in whatever rosy or gloomy light. However, methodologically speaking, it is one thing to think a question is important, it is quite another to think that there is a particular answer to find. So the key performance indicator is not that a complete perspective or light is shed on the definitions, that they become fixed, but rather that the relationship to questioning is promoted as some kind of sustaining approach to digital childhoods.

For Heidegger, it is that there is a question that there is human being. And so the point to the work is not to find a solution so that there might be no more questions, but to keep questions in play. Within the context of coming together to debate digital childhoods, the kinds of relationships that are set up around the questions are of critical interest. The questions should not stop with digital childhoods but rather explore the political and economic landscapes in which digital childhoods are observed. When a digital technology reveals something new about the ways in which politics and economics determine being, this is an example of the thing thinging. When a thing things it presences something about being (Heidegger, 1977). New media are particularly helpful for revealing new
questions to ask about what is happening now for parents and children and also for what has happened and what will happen. New media reveal the importance of asking questions about the image of the child and the adult within, for instance, the techno-economic determinism of living in a Knowledge Economy.

... bio-capitalism both reproduces existing forms of inequality and exploitation, and serves as the counterpart to economic neo-liberalism, which now increasingly views the organization and growth of the human body as overcoming existing ecological and economic limits to growth. The new biotechnological flexibility of the body and life itself is mirrored in the flexibility required for labour in the creative working culture of soft capitalism. (Loveless & Williamson, 2013, p. 31)

School and business are observed to be heading towards a technological singularity that has as its object the exploitable child. There are benefits of course to both for speaking the same language in terms of the experience of school and later experiences of fulfilling employment. The concern is for whom, and what kinds of limitations are going in constructing and using these languages. Schools and business may have been speaking the same language for some time (Heraud, 2013). Their shared ‘information-rich, knowledge-based network society’ is a global economic ‘reality’ that serves as an ironic grand postmodern narrative (Loveless & Williamson, 2013, p. 40) for all learning and work.

**Conclusion: Talk of New and Rapidly Changing Times**

Apparently ‘we’ live in ‘new’ and ‘rapidly changing’ times? For instance, there is talk about the newness of times because of the observation that there are new digital technologies, or that there are new flows of information and an expansion in the sharing of information because of digital technologies, or that the future is one that will be new because of the differences to our lives that are caused by digital technologies (see for instance Loveless & Williamson, 2013; Bolstad et al., 2012). In addition, there is talk about things being new because new ways of thinking make things seem new (Loveless & Williamson, 2013). How do these observations operate within debates about digital childhoods? Rarely are these words broken down and questioned. What is going on when the problem is one that is a universal problem? What is the meaning of new, and how does this meaning relate to that which comes before and after, which will both be new too? How do we measure rapidness? And what is our relationship to the notion of change?

Goodson and Buras (in Loveless & Williamson, 2013) recognize that the times are always changing times and so the idea of living in rapidly changing times is hardly new. Yet talk about rapid changing times is arguably the singularly most prevalent legitimation of positions in the debates around digital childhood. It is important to consider why the new and rapid times of change are perceived. In other words, what is the purpose of suggesting new things are happening faster than new things happened before?

When observing purposes in the dispositions for and against digital childhoods noted earlier, in particular in relation to education, the interconnection of the future, newness, transformation and expansion or increase represent a shared concern—it is important to both proponents and critics of new media that audiences accept the fact of newness and
rapidness. Contrasts appear around the implications of this edgy age of ‘cool capitalism’ (Loveless & Williamson, 2013). From one perspective new and rapid changing times legitimate any and every opportunity to entrench new media and new media attitudes. Opposing this acceptance, critics of new media emphasize fastness and change as deleterious to global and individual wellbeing. The newness and the rapidness appears as a legitimation for both forcing the child into technological relationships and protecting the child from technological relationship.

Yet none of this talk should be considered new. More than this, there might be some deeper problem with saying that things are new if their newness keeps from our mind that they are not new. This kind of forgetfulness is what Heidegger is interested in, through his observations of modern technological progress. I think we need to consider his concerns, and build on them through the work of those who saw more of the things to come than he did (Derrida and Lyotard). I am interested here in the role of the new in our thinking, in our relationships. What appears to be forgotten is the newness is an apparent complexity to which we are asked to find exploitative solutions. The tendency to argue that things are getting more complex provides a sense of inevitability for a progressive purpose. However the world is not getting more complex, it has never been simple. The problem here is the determinism that is ignored. A technological future is unimaginable, it is unimaginable that it will not be technological. What is meant is that the economic exploitation of technology is so embedded in their design and use that there is no other viable way to interface with the machine.

The philosophy of technology offers an approach to the debates on digital childhoods, not in terms of a master plan to resolve the debate or to create an ultimate synthesis of nature and technology, but rather to reveal the various relationships, past and present, to the problem. Societal institutions, whether the democratic institution of a nation, the corporations of a knowledge economy, or the monastic institutions of a religion, look for ways in which the experience of being schooled operate for and with those institutions so it is not particularly new. Presuming there is something unique to the ways in which school works on producing the digital child as if there has been no attempts to produce other kinds of child, the factory child, the bureaucratic child, the domestic child, the participatory citizen child, limits the ways in which the meaning of the digital child and its construction can be explored, the forgetfulness makes the determinism possible.

Note

1. The article is based on a symposium hosted at London Metropolitan University in September 2014 entitled Debating Digital Childhoods, chaired by Professor Jayne Osgood and drawing together researchers, practitioners, teacher educators, lobbyists and advocates interested in engaging in, and shaping, the debates on digital childhoods. Papers were presented by Steve Higgins, Carl Smith and Andrew Gibbons.

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