Web 2.0, new literacies, and the idea of learning through participation

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ABSTRACT: In this paper I identify some current elaborations on the theme of participation and digital literacy in order to open further debate on the relationship between interaction, collaboration and learning in online environments. Motivated by an interest in using new technologies in the context of formal learning (Merchant, 2009), I draw on in-school and out-of-school work in Web 2.0 spaces. This work is inflected by the new literacies approach (Lankshear & Knobel, 2006a). Here I provide an overview of the ways in which learning through participation is characterised by those adopting this and other related perspectives. I include a critical examination of the idea of "participatory" culture as articulated in the field of media studies, focusing particularly on the influential work of Jenkins (2006a; 2006b). In order to draw these threads together around conceptualizations of learning, I summarise ways in which participation is described in the literature on socially-situated cognition. This is used to generate some tentative suggestions about how learning and literacy in Web 2.0 spaces might be envisioned and how ideas about participation might inform curriculum planning and design.

KEYWORDS: Education, literacy, media studies, technology, learning, participation.

INTRODUCTION

Emerging technologies that harness computing power for the purpose of facilitating social interaction are transforming everyday perceptions and uses of the internet. Enthusiasts tend to extol the virtues of social networking sites and the potential of these services to extend the reach of our daily communication, whilst the traditional media regularly feed moral panic around the dangers of a life online, playing into a broader discourse of risk (Beck, Ritter & Lash, 1992). In the academic world, experts and literacy educators, amongst others, have seized upon the promise of the Web 2.0 phenomenon as a way of challenging the status quo and proposing a fundamental re-appraisal of compulsory education (Gee, 2004; Lankshear & Knobel, 2006a). This challenge is largely based on assumptions about how we learn, or how we might learn, in these new communicative spaces. As formal education begins to appropriate and repurpose Web 2.0 technologies, I argue that there is a need to re-examine pedagogical principles and ask ourselves whether we imagine that these technologies will perform old routines more effectively, or whether they really can be transformational, and, if so, how. In order to do this it may be necessary to reflect on deeply held beliefs about the enterprise of education, theories of learning, and the role of new literacies in the curriculum.

In what follows I interrogate the concept of participation as it used in recent literature on new technologies in order to identify the key features of new literacies in the context of Web 2.0. To begin, I provide general background on Web 2.0 development using a framework that highlights its potential for social participation online. I then analyse four iterations of

participation as it is described in terms of: 1) the wisdom of crowds; 2) participatory culture; 3) sociocultural accounts of learning and 4) the remix metaphor.

POKE! ACTIVE PARTICIPATION IN WEB 2.0

O'Reilly (2005) coined the term Web 2.0 to describe new directions in popular internet usage rather than to label specific applications of new technology, and partly as a result of this, definitions of Web 2.0 remain contentious. So, for example, Berners-Lee (2006) has disputed the whole notion of Web 2.0, arguing that the web has always been capable of the interactive uses described by O'Reilly: "Web 1.0 was all about connecting people. It was an interactive space" (11th Berners-Lee utterance in this interview). Others, such as Keen (2007), readily accept that there has been a substantial shift in popular engagement with the web, but are less than enthusiastic about the result, which is often characterized in terms of a proliferation of banal or frivolous publication co-mixed with misinformation.

Despite ongoing debates about the impact of the so-called social web, the term Web 2.0 seems to me to be useful in drawing attention to new kinds of interactivity and describing a second wave of enthusiasm for the internet in the popular imagination. Certainly, the currency of a wide range of new applications which foreground interactivity and collaboration around shared content merits the attention of educators, not least because they absorb so much of the time and attention of children and young people of school age (Livingstone & Bober, 2004), but also because they involve new literacy practices and new habits of mind (Lankshear & Knobel, 2006a). Web 2.0 applications pre-suppose a more active user who is encouraged to design an online presence (an identity, or even multiple identities) and to participate, to a greater or lesser extent in a community of like-minded users – as in the popular social networking site *Facebook*. Whether or not the social networks that emerge can be described as "communities of practice" (Wenger, 1998) or "affinity spaces" (Gee, 2004), and how we can best describe the informal learning that can take place in Web 2.0 environments is an area that continues to provoke much interest (see Davies & Merchant, 2009).

Web 2.0 spaces have a number of salient characteristics. O'Reilly has his own lengthy list, and others (for example, Cagle, 2006) have developed similar lists. Since Web 2.0 is best described as a developing trend or attitude (Lankshear & Knobel, 2006a) it is always likely that some but not all of these features may be present in a single Web 2.0 space. However, in order to capture the essence of Web 2.0, I find it useful to refer to four characteristic features, and these are listed and explained below.

> *1. Presence:* Web 2.0 spaces encourage users to develop an active presence through an online identity, profile or avatar. This presence is recognisable by others, but may develop over time. Active presence is secured by regular updating, interaction and, in some cases, through alerts to show that a user is online. Many users develop a sense of self across a number of spaces – such as through one or more blogs, in a Flickr photostream, in eBay and on YouTube (Merchant, 2006), thus performing multiple identities.

2. Modification: Web 2.0 spaces usually allow a degree of personalisation such as in the design of the user's home page and personal links, or in the creation of an on-screen avatar. Web 2.0 spaces may also be "mashable", or interoperable. The API (application programme interface) which acts as a sort of handshake between programmes, allows users to link one application to another or import objects and features from one space to another – such as embedding images from Flickr in a wiki, or a YouTube video in a blog.

3. User-generated content: Web 2.0 spaces are based upon content which is generated within and by the community of users rather than provided by the site itself. YouTube, for example, provides a template and plenty of online space for its users, but the users supply the videos and the comments themselves. This does not mean that participation is not possible if users do not generate content. For example, there are many users of YouTube who do not upload or comment on the site, but they are likely to embed the html source code in their blogs, cite the url, show a friend and so on. In this way Web 2.0 users are producers as well as consumers.

4. Social participation: Web 2.0 spaces provide an invitation to participate. This derives, in part, from the above three points. Rating, ranking and commenting are all ways of giving and receiving feedback and developing content, whereas features such as friend lists, blogrolls and favourites become public displays of allegiance (Donath & boyd, 2004). Just as user-generated content makes us both producers and consumers, so with social participation we are simultaneously both performers and audience.

This list of features is not intended to be exhaustive, but seem to me to characterise Web 2.0 use, and it has certainly proved useful in examining how Web 2.0 spaces involve their users or members and how they promote a sense of community and interaction (Davies and Merchant, 2009). By way of illustration, Figure 1 shows how these four features are realised in some popular Web 2.0 environments.

Although the four characteristics illustrate aspects of user participation in Web 2.0, they fall short of providing an account of the kinds of activities and practices involved, the new literacies that are mobilised, or the kinds of learning that occur. Despite claims that the social web is a rich space for informal learning, to date there has been little serious attention paid to the form or nature of that learning. Researchers such as boyd, (2007), Carrington (2008,) Merchant (2007), and Davies (2006) have all *described* the learning that takes place, but no model has been developed yet to theorize this learning. At the same time, however, there is growing evidence of innovative educators using Web 2.0 applications in the classroom (Lankshear & Knobel, 2006a). But it must be said that these are small gains in a political and educational environment that often sees technology as a solution to all its problems – from providing for employment and skills shortages, to "curing" pupil disaffection and under-achievement.

As education authorities, administrative districts and school boards are pushed and pulled into the adoption of closed-system learning platforms (VLEs), it seems to me that the creative imaginings of innovative teachers could well be locked down, and the potential to develop

the new kinds of learning and literacy that are associated with Web 2.0 participation may be limited. Closed-system blogs and wikis can easily be repurposed as open portfolios, carefully assessed and continually under surveillance, while net-savvy students migrate to less-regulated spaces. There are some indications that this is already happening in Higher Education (Burnett, 2008) and at secondary or high school level.

	Presence	Modification	User-Generated Content	Participation
Blogger	*Profile; posting and feeds; blogroll; comments; template changes*	*Customisation of template; widgets; sidebar items*	*Posting; links; tags; comments*	*Comments; RSS feeds; links*
Flickr	*Profile; "from your contacts"; updates on photostream; your comments; use "notes"; template changes*	*Page layout; customised URL; use of Flickr in other spaces (for example, Blogger; VoiceThread)*	*Uploads; titles, descriptions and tags; notes on images; testimonials; comments and discussion; Flickr Mail*	*Comments; tags; notes; testimonials; Flickr mail. Forum discussion – community activities*
YouTube	*Profile; personal channel; updates and comments; template changes*	*Home page skin; own channel; use of YouTube in other spaces (for example, in Blogger)*	*Uploads; tags; comments – verbal and via video response; YouTube messages*	*Comments; tags. Forum discussion – community activities*
Last.fm	*Profile; personal station; template changes; currently listening to*	*Change the colour of the Home page skin; import "chart" widget (for example to Blogger)*	*Your playlists and stations; your tags; comments and discussion*	*Comments; tags; other people's charts*
Second Life	*Your avatar and its look; what your avatar says and does*	*Design and modification of avatar; building projects*	*Building; mash-ups; machinima*	*Interaction with other avatars*
PBWiki	*Profile; page changes; feeds; comment; add tags*	*Customisation of template; widgets; rich media*	*The text itself – rich media and writing*	*Comments; tags*

Figure 1. The four characteristics of Web 2.0 at work

A more sophisticated conception of learning-as-participation, or perhaps learning-through-participation and the role played by literacy in this might begin to counter this trend. If we are more attentive to insider accounts of informal learning in Web 2.0 spaces it may just be possible to predict how more engaging and relevant practices could re-invigorate or even transform educational provision (see Bryant, 2007). In addition to understanding the "real world" practices of bloggers (Carrington, 2008), the photo-sharing community (Merchant, 2007) and the citizens of the metaverse (Shroeder, 2002), we can examine the more creative ways in which practitioners have begun to use Web 2.0 literacies in educational settings.

To illustrate what might constitute informed practice in an educational context, a fruitful starting point is the blogosphere. Of all the Web 2.0 applications currently available, it is probably fair to say that blog technology is the most widely known and used. The number of educational blogs (edublogs) rises daily, and black box, learning platform blogs have become common place. The extent to which this new use of blogging is based on authentic (real world) literacy practice has been commented on elsewhere (Lankshear & Knobel, 2006b). But leaving this point aside, for the moment, consider an example of edublogging. Figure 2 shows how one teacher uses free blogging software to engage and extend the learning of her class of 6-year-olds. Mrs. Cassidy, a Canadian elementary school teacher, keeps a blog which has the look and feel of a real world blog and utilizes some of its characteristic features to develop her own brand of participatory practice.

In this screenshot (Figure 2), the post dated September 1st 2008, displayed centrally, is about a project on plants. There is a video embedded in the blog, showing one of the pupils identifying a plant part. Here the teacher and her class use new literacies to share what they have learnt in the classroom with a wider audience. On the left of the page are links to other sites, one of which is also maintained by the teacher, and which acts as a portal to all the other sites she has set up. There are also links (on the left) to other teachers' blogs. To the right, hyperlinks connect to the children's own blog posts. Here they can describe their work, their literacy activities, and receive comments from their readers.

So, this blog works as a central point for displaying the children's work, acting as a kind of anchor for Mrs. Cassidy's teaching, as a connection between her pupils, and as a bridge between home, school and the wider community. This teacher identifies for the pupils in her class, as well as for outside readers, what the class is doing, what they will be doing, when and why. As such it reflects her pedagogy; but it also *is* her pedagogy, being a medium through which she teaches and the children learn. Mrs. Cassidy is quite clear about the benefits of opening out the work to others, saying in her "About Me" section, "I teach a class of six year olds in Moose Jaw, Canada who are inviting the world into their classroom to help them learn."

Figure 2. Mrs Cassidy's blog

This blog, and others like it, are examples of how some teachers are embracing and making sense of Web 2.0 technologies, modeling their work on authentic real world literacy

practices. Mrs. Cassidy's blog provides a potent illustration of how new literacies translate into classroom practices. But in what ways are these practices participatory, and to what extent are new approaches to learning evident?

The simplest and most striking feature of Mrs. Cassidy's work is the sense of connectedness that she shares with her pupils. The class's work is published and public; the teacher is "inviting the world" to participate, and not just as viewers but as producers who leave comments, discuss her work, follow her links and so on. Similarly, her class of 6-year-olds is also involved in producing content for the blog, using the full range of media at their disposal, leaving comments and reactions in their own writing, complete with its un-edited invented spelling.

Although most of the learning is situated in the immediate physical location of the school, Mrs. Cassidy's vision is of a connected world where others, outside the classroom, can contribute to the learning space she has created. In this way, it could be argued that these young Canadians are apprenticed to a participatory culture – a culture that connects its members in new and potentially powerful ways. But it is clearly not the case that Mrs. Cassidy is the only craftsman in that apprenticeship. The children themselves draw on different funds of knowledge and help each other, older pupils act as buddies, and visitors to the blog contribute, too. In sum, these students are using new literacies to participate in a digitally mediated culture as they become involved in online communicative interaction in a shared space related to a joint endeavour.

THE WISDOM OF CROWDS – THE IDEA OF PARTICIPATION IN NEW LITERACIES

An important strand in contemporary thinking about participation and new technology is informed by the liberal democratic ideology of active citizenship. Popular and influential accounts of this, from Surowiecki's *The wisdom of crowds* (2004) to Benkler's *Wealth of networks* (2006), extol the virtues of involvement and collaborative action. In these accounts, interactivity is a rather more ambitious project than simply pushing the red button to get a different view of the game – or even inviting remote participation in school learning; instead it involves taking some sort of co-ordinated action. Rheingold (2002) extends this into the arena of activism in describing how smart mobs can engage in collective action, even though the individuals involved may not be known to each other. His examples include political coups in the Philippines and Senegal, where expressions of deep-rooted unrest were transformed into political action through the mediation of new technology. Back at home, it is harder to see how impromptu i-pod parties at Paddington Station or smart mob swarms in sofa shops fit into this vision (BBC News, 2003). However, whether they constitute performance art or collective play they do at least exemplify a new kind of participation and one that is made possible through new literacies and digital networks. And this is the possibility that was exploited, at least according to some commentaries, by President Obama in his high-profile electoral campaign.

Educators with an interest in what new kinds of participation might offer have indeed paid careful attention to these and other everyday online practices. The work in "new literacies",

inspired by Lankshear and Knobel (2006a; 2006b), has surveyed a wide range of online interaction, whereas the work of Gee has developed a specific focus on video-gaming (2003; 2004) as a way of providing a nuanced account of situated learning. A key concept in Gee's work is how participatory learning is organized in "affinity spaces". Affinity spaces are described by Gee as being guided by purpose, interest and content. Thus the shared endeavour, or interest, around which the space is organized is for Gee the primary affinity; it is less about belonging to a stable community (as in the work of Wenger, 1998) and more about the exchange of information, skill or other material.

> An affinity space is a place (physical, virtual, or a mixture of the two) wherein people interact with each other, often at a distance (that is not necessarily face-to-face, though face-to-face can also be involved) primarily through shared practices or a common endeavour (which entails shared practices)(Gee, 2004, p. 98).

An example of this is photosharing on Flickr, a social networking site where members upload and comment on each others photographs. Here, the shared practice is the digital image. To illustrate this, and the mediating influence of Web 2.0 tools, the screenshot in Figure 3 shows how a particular image is labeled (with tags) and has been included in various groupings, and through these actions has attracted the comments of other users of the site.
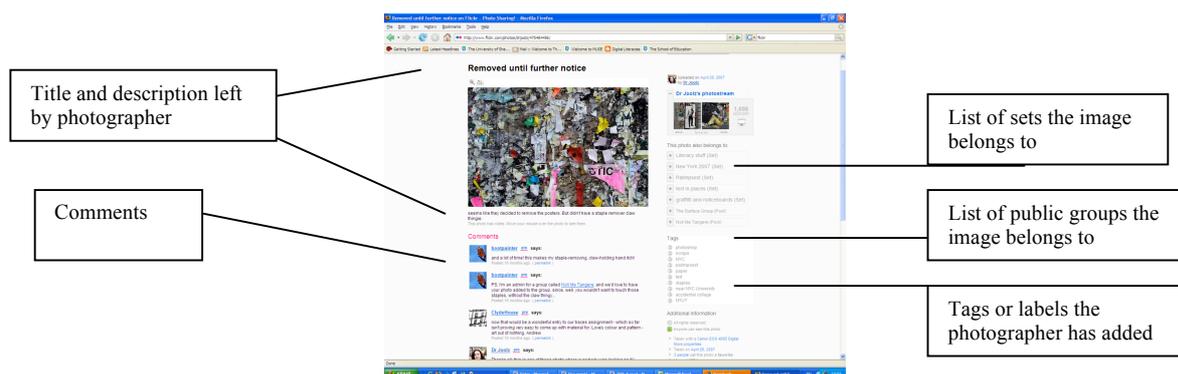
Figure 3. Flickr sets, comments and tags

The image itself shows a public noticeboard which has had all of its notices removed. The remaining scraps of paper have created a mosaic effect which has captured the photographer's interest. Through hyperlinked tags, on the right-hand side ("scraps", "NYC" "palimpsest", and so on), this image is connected to others in the photographer's collection as well as to many others in the site as a whole. Clicking on a tag, such as "palimpsest", conjures all the images which have been tagged "palimpsest". A simple tag search will change the context of individual images, showing an image alongside others tagged in the same way, reflecting something about the meaning of the term "palimpsest" and perhaps even developing a particular meaning of that word for other Flickr photographers.

The aggregation of tags creates knowledge through active participation in the Flickr affinity space. So, the "collective wisdom" of tags – referred to as a folksonomy (akin to a user-generated taxonomy) – is a powerful iteration of a new kind of digitally-mediated and participatory literacy practice. Users' values, interests and priorities are the ones that count in

a folksonomy, and these will change over time as the nature of the people and images continue their activities.

Folksonomies are, of course, only one example of how the sorts of distributed participation typical of Web 2.0 spaces can generate learning. Work on new literacies has helped to draw attention to the ways in which these technologies are enabling children and young people to produce their own content, to develop their own interests, to learn and to respond to feedback outside of the formal structures of schooling. Far from being isolated techno-subjects marooned in their bedrooms and pacified by the soporific effect of wall-to-wall media, as some popular discourses would have it, many of today's children and young people have the resources for more widespread interaction and cultural production than any previous generation (Luke & Luke, 2001). Sites like Flickr are distinctive because the interaction that takes place is predominantly online; this sort of participation neither depends on co-presence (in time and place), nor on a prior face-to-face relationship, although neither are precluded.

CONSUMERS AS PRODUCERS – PARTICIPATORY CULTURE IN MEDIA STUDIES

In stark contrast to the idea that contemporary life is fragmented, typified by the loss of a sense of value, purpose or community (Bauman, 2003), and associated discourses about youth as disaffected techno-subjects, the work of authors like Jenkins (2006a) and Buckingham (2003) have explored the notion that new technologies can support new kinds of participation. In his writing on media, Jenkins regularly uses the term "participatory culture" to capture this theme and to suggest the importance of audience participation and collective intelligence in contemporary mediascapes. In an influential paper written for the MacArthur Foundation, Jenkins defines a participatory culture as one in which members "believe their contributions matter, and feel some degree of social connection with one another". (Jenkins *et al.,* 2006b, p. 3). He argues that new communications technology has transformed the lives of many (but not all), and that a cluster of "skills" are necessary for full participation in the digital world. Because of what he refers to as "the participation gap" – similar to some iterations of the digital divide (see Selwyn, 2004, for commentary) – these skills should, according to Jenkins, be incorporated in the school curriculum.

Jenkins' approach avoids the identification of specific media, hardware or software, favouring instead a broader ecological view that emphasises the kinds of cultural practices that evolve around or employ new technology. These are cultural practices which may or may not figure in educational settings, but are instances of everyday production and consumption, and are variously described as "creative" or "democratic" in character (ibid). The fact that not all such practices are marked by these characteristics does not concern Jenkins, since his utopian vision of a fully-networked participatory culture aims to directly influence educational policy and practice. So, a participatory culture is one:

1.   With relatively low barriers to artistic and civic engagement
2.   With strong support for creating and sharing one's creations with others
3.   With some type of informal mentorship whereby what is known by the most experienced is passed along to novices
4.   Where members believe their contribution matters

5.   Where members feel some degree of social connection with one another (at least they care what other people think about what they have created) (Jenkins *et al.,* 2006b, p. 7).

Developing educational provision that provides a useful apprenticeship to participation in the new media environment is the challenge posed to educators by Jenkins' work. However, a more nuanced account of the different kinds of social, economic and cultural capital that determine existing levels of participation and expertise is needed if we are to build on these aspirations.

An alternative view, and one that suggests a more reflective or critical producer and consumer, comes from the European Charter for Media Literacy (Euromedia, 2004). This influential charter identifies three inter-related strands, often referred to as the three Cs. These are:

*   *Cultural***:** broadening learners' experience of different kinds of media form and content
*   *Critical***:** developing learners' critical skills in analysing and assessing media outputs
*   *Creative***:** developing learners' creative skills in using media for expression and communication, and for participation in public debate

In contrast to Jenkins' model, the European Charter is more explicitly educational, describing its aims in terms of literacies, whilst at the same time underscoring the importance of criticality.

Under the umbrella of critical media literacies, innovative practitioners have again explored some interesting possibilities. In the following example, networked professionals in Europe used wiki software to promote interaction between their students. Wikis provide good opportunities to co-create interlinked pages, and provide a rich resource through which students in geographically dispersed locations can learn about each other and collaborate on shared interests. The MacNed project is based on a partnership between the Helen Parkhurst School in Almere, in the Netherlands, and the Gostivar Secondary School, in Macedonia. The work described here aimed to develop intercultural understanding through the use of new technology, as students shared and analysed their own production and consumption of media. The wiki, written entirely in English (a second language for both groups), allowed the students to communicate and collaborate in a shared space (Merchant, 2007). The students demonstrated and shared participatory skills by embedding videos and other media, writing and commenting on each others' work and ideas.

The MacNed Project illustrates how the new ways of communicating and collaborating that characterize Web 2.0 can be used for learning. Whilst it could be argued that the same kinds of understanding could be developed through more traditional approaches, the possibility of co-constructing text in different geographical locations, exchanging and commenting on work in different media creates a heightened sense of interactivity and a more overtly participatory space for learners. The work also begins to point to a changing role for educators who, in this case, needed to co-ordinate the work in order to provide the context for interaction – in short, to design the learning experience in ways that encouraged learning through participation. This kind of learning has profound implications for how literacy is used, how meanings are negotiated, and how knowledge is constructed in educational settings. As Jenkins argues:

> The social production of meaning is more than individual interpretation multiplied; it represents a qualitative difference in the ways in which we make sense of cultural experience, and in that sense, it represents a profound change in how we understand literacy. In such a world, youth need skills for working within social networks, for pooling knowledge within collective intelligence, for negotiating across cultural differences that shape the governing assumptions in different communities, and for recording conflicting bits of data to form a coherent picture of the world around them (Jenkins *et al.,* 2006b, p. 20).

The sort of vision which Jenkins evokes here is one in which children and young people become active participants in new mediascapes as part of their education. This moves beyond some iterations of "participation", and particularly some interpretations of "communities of practice" (Wenger, 1998) in which it can sometimes seem as if the main concern is one of socializing learners into pre-existing values and practices. The work of the young people involved in the MacNed project is quite clearly situated in an online environment which is shared, and in which knowledge and learning are distributed.

THE PLACE OF LEARNING – PARTICIPATION AND PRACTICE IN SOCIOCULTURAL ACCOUNTS OF LEARNING

Participation is a key theme in many contemporary accounts of learning. These accounts tend to emphasise the importance of social interaction - either from the point of view of what individuals learn *from* joint endeavour (what Rogoff {1995} refers to as "participatory appropriation") or from the point of view of what is learnt *in* joint endeavour (participation in a "community of practice", Wenger (1998)). With great clarity, Lave's seminal paper on socially-situated learning not only explains the limitations of earlier psychological accounts of individualised learning but also points out the inadequacy of traditional accounts of apprenticeship, favouring instead a view of learning as participatory practice (Lave, 1996). Accordingly, "learning, wherever it occurs, is an aspect of changing participation in changing practices", and what is more, these changes involve shifts in the learner's identity and what is "known". And so:

> …crafting identities in practice becomes the fundamental project subjects engage in; crafting identities is a *social* process, and becoming more knowledgeably skilled is an aspect of participation in social practice. By such reasoning, who you are becoming shapes crucially and fundamentally what you "know". "What you know" may be better thought of as doing rather than having something – "knowing" rather than acquiring or accumulating knowledge and information (Lave, 1996, p. 157).

This description fits well with insider accounts of Web 2.0 use (Davies, 2006; Merchant, 2006; Merchant, 2007) in which ideas about the relationship between identity performance and knowledge-building have repeatedly surfaced. Take photo-sharing in the Flickr site for an example. My own account (Merchant, 2009) shows how participation in this particular Web 2.0 space could be described in terms of a journey from a position of mild curiosity to fuller engagement with the practices of a particular online community. Others have also commented on the density of the textual space in this photo-sharing site. For instance, Davies (2006) describes how Flickr offers multiple opportunities for social interaction and so

communication is both densely-layered and fluid. She explains how this works, as Flickr members bring:

> ...contributions such as digital images, comments about photographs (comments on photo content, composition, format, source and meanings) and technological solutions and suggestions; as well as all kinds of information. These contributions are brought to the Flickr space, thus constituting the fabric of the Flickr space. The space is therefore in a state of constant affirmation and renewal, for contributions can be seen to both sustain the existing values as well as develop them (Davies, 2006, p. 219).

In this way, joining Flickr is not just about becoming part of a community, it is about helping to build that community, adding to its stock of meanings, and contributing to new ways of looking at the world and developing new digital practices. And so it fits less well with existing accounts of communities of practices and invites a more dynamic account of participation, practice and meaning-making.

In Flickr, the architecture of the online space allows the individual to control the level and frequency of participation – to use photo-sharing in ways that are most pleasing or useful to the user (and his or her particular learning trajectory or interest). So, Lave's idea of "changing participation in changing practices" (Lave, 1996) fits well with this informal, interest-led learning of everyday Web 2.0 use. But how well does it transfer to formal and compulsory education? As long as formal education remains focused on inculcating children and young people into pre-existing, print-based practices and hierarchically organized forms of knowledge that are somehow to be transferred to individual learners, a genuinely participatory approach will be hard to achieve. On the other hand, Flickr provides a template for participatory learning, in which levels of engagement are dictated by individuals who, over time, shape and are shaped by the community in different ways.

WEB 2.0, REMIXING BAKHTIN – A DIALOGIC SPACE FOR LEARNING?

The work of Lessig (2002; 2004) has made an important contribution to our understanding of the kinds of participation that involve the creative production of new cultural artifacts (including ideas and knowledge). Lessig used Apple's rip-mix-burn slogan to explore how new digital resources can be constructed out of existing material (Lessig, 2002). This idea was developed in subsequent work to include a fuller exploration of the remix phenomenon (Lessig, 2004). Lankshear and Knobel (2006a), building on this work, chart the ways in which remix as a creative practice has now extended to cover a variety of forms of cultural production. In an argument that recalls the Bakhtinian notion of double-voicing (Bakhtin, 1998), they suggest that:

> At the broadest level, then, remix is the general condition of cultures: no remix, no culture. We remix language every time we draw on it, and we remix meanings every time we take an idea or an artifact or a word and integrate it into what we are saying and doing at the time (Lankshear & Knobel, 2006a, p. 107).

Lankshear and Knobel go on to illustrate how remixing now extends to new combinations of digital image, text, sound and animation and they use fanfiction, photoshopping and AMV as

examples of this. Furthermore, and in a more technical sense, the customisation of Web 2.0 applications, the design of widgets and software mash-ups are also extensions of the remix phenomenon. In his work, Lessig (2004) shows how the remix and mash-up ethos underpins a lot of Web 2.0 use and development.

Others have pointed out that by using this idea of remixing, the DJ becomes a central metaphor for the Web 2.0 user/developer (Boutelle, 2005). Overviewing the development of DJ-ing in popular music can, I believe, help in exploring this metaphor. Since the late 1960s, when Jamaican DJs and producers began modifying studio recordings and adding vocal accompaniments (a practice known as "toasting"), the DJ's ability to recontextualise music has become a revered art. The influence of DJ styles derived from African American oral traditions is also woven into the history of rap and RnB styles of music. Central to contemporary genres of these and other kinds of dance music are the ideas of sampling and remixing. Sampling depends upon using or adapting a previously recorded sound or musical extract and incorporating it in a new recording. Typically, this is mixed in with beats and other elements to produce a sort of musical collage. As Dyson explains:

> Sampling is a means of borrowing and manipulating sounds to construct new mixes, new pieces....[Rappers] took their samples from previously recorded songs and used them as a background beat for an improvised street poetry (Dyson, 2003, p. 172).

Often these recordings are in turn remixed by live DJs, who may introduce fresh combinations of tracks, add their own samples, or manipulate the tempo, pitch and other musical characteristics of what they play.

The DJ metaphor, and its associated ideas of sampling and re-mix, has now been adopted in a number of contexts to explain how new material is constructed: in young children's writing (Dyson, 2003); in the production of AMV (Ito, 2006); and in the writing of fanfiction (Jenkins, 2006a). At root the basic idea, as Lankshear and Knobel (2006a) observe, is nothing new. Mahler's use of Frère Jaques in his 1st Symphony, Luis Buñuel's Last Supper sequence in the film *Viridiana*, and the work of the brothers Grimm all suggest themselves as examples of the same phenomenon. The point is to underscore the significance of remix as a creative or generative process that involves active consumption and participation. In this light, the paper you are reading now is a remix, weaving together samples of others' work (in quotations and synopses) with "previously recorded" material (that is to say: Davies & Merchant, 2009) around a modified theme (the idea of participation) to produce something new for a new audience.

Remix, then, becomes a particular form of participation – one in which the boundaries between consumption and production are blurred (Bruns, 2006, uses the word "produsage" to describe this). This phenomenon is perhaps best described as active, or creative participation. But does it constitute a model for learning and, if so, could this model of participation be harnessed for Web 2.0 use in educational contexts and what might it look like in practice? These are questions that are beyond the scope of this paper, but touch on the topic of how we come to know and learn from the ideas of others. It is suggestive of an account of learning as bricolage, in which ideas from a whole variety of sources are assembled to make sense of the world; and one in which the activities of thinking and meaning-making are collective rather than individual and, in this sense participatory.

CONCLUSION

Participation, as a word in everyday use, evokes ideas of sharing and working together. It stresses collaborative or collective experience and as such holds considerable appeal for those technologists and educators who prize joint enterprise and espouse communitarian ideologies. Those who see the social dimension as an essential and necessary part of learning and education have naturally been drawn to the idea of "learning through participation", but as Edwards (2005) points out, the meaning of the oft-quoted phrase is in danger of becoming opaque through over-use. In this paper I have tried to explore how the idea of participation has been articulated in the emerging study of Web 2.0 and new literacies, using different iterations of the concept and illustrating their relevance to telling cases of Web 2.0 use. In doing this, I have identified that social participation in Web 2.0 has a number of attributes. These could be summarized as follows:

- it involves online communicative interaction in a shared space related to a joint endeavour;
- it has distinctiveness because the interaction is predominantly online – it therefore does not depend on co-presence (in time and place), and it does not depend upon a face-to-face relationship, although neither are precluded;
- it takes place in an online environment which is shared, and in which knowledge and learning are distributed;
- levels of engagement are dictated by individuals who shape and are shaped by the community in different ways;
- the activities of thinking and meaning-making are collective rather than individual.

It seems to me, then, that Web 2.0 technologies *can* promote participation, and also that they *can* promote learning. However, these are insufficient grounds for making simplistic connections between emerging technologies and learning through participation, whatever one takes that to mean.

In introducing these themes I asked whether we imagine that these technologies will perform old routines more effectively, or whether they really can be transformational. The idea that technologies, or rather *our use* of technologies, will somehow transform learning and teaching and literacy is written into the policy documentation, but transformational pedagogy needs further elaboration and description, and this work might well begin with an examination of some of the concepts that we, sometimes rather glibly, take for granted.

In summary, then, I argue for more systematic analysis of the ways in which Web 2.0 literacies promote learning, and more clarity about the kinds of participation that it engenders. Claims that children and young people are now engaged in unprecedented levels of participation may be exaggerated and born out of a particular kind of technological determinism (Selwyn, 2004), but nonetheless, the potential of Web 2.0 technologies to connect learners in new ways should not be ignored. If formal and informal learning take place in specific kinds of structured or semi-structured social networks, then online environments present an alternative range of contexts. These are contexts or learning spaces which are not so strongly tethered to place and whose temporal boundaries are more flexible than has traditionally been the case. Furthermore, they invite new ways of thinking about the

production and circulation of the artifacts of learning, reconfiguring relationships between learners and experts, as well as teachers and their teaching resources. Such shifts in pedagogy *are* possible, but they are more dependent upon the creativity of educators and the vision of policy-makers than they are on the technological resources of hardware and software. And, in the final analysis, it is for educators and other stakeholders to decide how possible futures might translate into desirable futures.

REFERENCES

Bakhtin, M. (1998). *The dialogic imagination: Four essays by M. M. Bakhtin* (M. Holquist, Ed.) (C. Emerson & M. Holoquist, Trans.). Austin: University of Texas Press.

Bauman, Z. (2003). *Liquid love: On the frailty of human bonds.* Cambridge: Polity.

BBC News (2003, August). Smart mob storms London. Retrieved August 18, 2008 from http://news.bbc.co.uk/1/hi/technology/3134559.stm

Beck, U., Ritter M., & Lash, S. (1992) *Risk society: Towards a new modernity.* London: Sage.

Benkler, Y. (2006). *The wealth of networks: How social production transforms markets and freedom.* New Haven: Yale University Press.

Berners-Lee, T. (2006). *developerWorks Interviews: Tim Berners-Lee.* Retrieved August 20, 2008 from http://www.ibm.com/developerworks/podcast/dwi/cm-int082206txt.html.

Boutelle, J. (2005). Hey DJ – Web 2.0 and remix culture. Retrieved August 18, 2008 from http://www.jonathanboutelle.com/mt/archives/2005/08/hey_dj_a_web_20.html.

boyd, d. (2007). Why youth (heart) social networking sites: The role of networked publics in teenage social life. In D. Buckingham (Ed.), *MacArthur Foundation series on digital learning – Youth, identity, and digital media volume* (pp. 119-142). Cambridge, MA: MIT Press.

Bruns, A. (2006). Towards produsage: Futures for user-led content production. In F. Sudweeks, H. Hrachovec & C. Ess (Eds.), *Proceedings of the cultural attitudes towards communications and technology 2006* (pp. 275-284). Tartu: Estonia. Retrieved November 6, 2008, from http://eprints.qut.edu.au/archive/00004863/01/4863_1.pdf

Bryant, L. (2007). Emerging trends in social software for education. In *Emerging technologies for learning* (Volume 2)(pp 9-18). Coventry: BECTA. Retrieved August 31, 2008 from http://partners.becta.org.uk/index.php?section=rh&&catcode=&rid=13904.

Buckingham, D. (2003). *Media education: Literacy, learning and contemporary culture.* Cambridge: Polity Press.

Burnett, C. (2008). *Primary student-teachers' perceptions of the role of digital literacy in their lives.* Unpublished doctoral Dissertation, Sheffield Hallam University.

Cagle, K. (2006, February 22). *A Web 2.0 checklist.* Retrieved August 22, 2008 from http://www.oreillynet.com/xml/blog/2006/02/a_web_20_checklist.html.

Carrington, V. (2008). I'm Dylan and I'm not going to say my last name: some thoughts on childhood, text and new technologies. *British Educational Research Journal*, *34*(2), 151-166.

Davies, J. (2006). Affinities and beyond! Different ways of seeing in online spaces. *e-learning, 3*(2), 217-231.

Davies, J., & Merchant, G. (2009). *Web 2.0 for Schools: Learning and social participation.* New York: Peter Lang.

Donath, J., & boyd, d. (2004) Public displays of connection. *BT Technology Journal, 22*(4), 71-82.

Dyson, A. (2003). *The brothers and sister learn to write.* New York: Teachers College Press.

Edwards, A. (2005). Let's get beyond community and practice: The many meanings of learning by participation. *The Curriculum Journal, 16*(1), 49-65.

Euromedia (2004). *The European Charter for Media Literacy.* Retrieved October 16, 2009, from http://www.euromedialiteracy.eu/charter.php

Gee, J. (2003). *What videogames have to teach us about learning and literacy.* New York: Palgrave Macmillan.

Gee, J. (2004). *Situated language and learning: A critique of traditional schooling.* London: Routledge.

Ito, M. (2006). Japanese media mixes and amateur cultural exchange. In D. Buckingham & R. Willet (Eds.), *Digital generations: Children, young people and the new media* (pp. 49-66). Mahwah: NJ: Lawrence Erlbaum.

Jenkins, H. (2006a). *Fans, bloggers and gamers: Exploring participatory culture.* New York: New York University Press.

Jenkins, H. (with Purushota, R., Clinton, K., Weigel, M., and Robinson, A.) (2006b). *Confronting the challenges of participatory culture: media education for the 21st century.* Chicago: MacArthur Foundation. Retrieved August 27, 2008 from http://www.digitallearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF.

Keen, A. (2007). *The cult of the amateur: How today's internet is killing our culture and assaulting our economy.* London: Nicholas Brearley.

Lankshear, C., & Knobel, M. (2006a). *New literacies: Everyday practices and classroom learning* (2nd ed.). Maidenhead: Open University Press.

Lankshear, C., & Knobel, M. (2006b). Weblog worlds and constructions of effective and powerful writing: Cross with care, and only where signs permit. In K. Pahl & J. Rowsell (Eds.), *Travel notes from the New Literacy Studies: Instances of practice* (pp. 72-92). Clevedon: Multilingual Matters.

Lave, J. (1996). Teaching, as learning, in practice. *Mind, Culture and Activity, 3*(3), 149-164.

Lessig, L. (2002). *The future of ideas: The fate of the commons in a connected world.* New York: Random House.

Lessig, L. (2004). *Free culture: How big media uses technology and the law to lock down culture and control creativity.* New York: Penguin.

Livingstone, S., & Bober, M. (2004). Taking up online opportunities? Children's uses of the internet for education, communication and participation. *E-learning, 1*(3), 395-419.

Luke, A., & Luke, C. (2001). Adolescence lost/childhood regained: On early intervention and the emergence of the techno-subject. *Journal of Early Childhood Literacy, 1*(1), 91-120.

Merchant, G. (2006). Identity, social networks and online communication. *e-learning, 3*(2), 235-244

Merchant, G. (2007). Mind the gap(s): Discourses and discontinuity in digital literacies. *e-learning, 4*(3), 241-255.

Merchant, G. (2009). Learning for the future: Emerging technologies and social participation. In L. Hin & R. Subramaniam (Eds.), *The handbook of research on new media literacy at the K-12 level* (pp. 1-13)*. Hershey, PA: IGI Global.

O'Reilly, T. (2005). *What is Web 2.0?* Retrieved August 27, 2009 from http://oreilly.com/web2/archive/what-is-web-20.html.

Rheingold, H. (2002). *Smart mobs: The next social revolution.* Cambridge, MA: Perseus.

Rogoff, B. (1995). Observing sociocultural activity on three planes: Particpatory appropriation, guided participation and apprenticeship. In J. Wertsch, P. del Rio & A. Averez (Eds.), *Sociocultural Studies of Mind* (pp. 139-164)*. Cambridge: Cambridge University Press.

Schroeder, R. (2002). Social interaction in virtual environments: Key issues, common themes, and a framework for research. In R. Schroeder (Ed.), *The social life of avatars: Presence and interaction in shared virtual environments* (pp. 1-19)*. London: Springer.

Selwyn, N. (2004). Reconsidering political and popular understandings of the digital divide. *New Media and Society, 6*(3), 341-362.

Surowiecki, J. (2004). *The wisdom of crowds*. Random House.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity.* Cambridge: Cambridge University Press.