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'New' literacies:
technologies and values

Introduction: how long is 'new'?

Thinking about what is 'new' with respect to new literacies is challenging and important. It involves trying to understand how our conceptions and practices of literacy are changing in the midst of a far-reaching move away from one kind of social-economic-technological paradigm – and social order – and toward another.

It is too easy to make light of 'new literacies' by saying things like: 'Well, there are always newer ones coming along, so that MOOing is already an "old" new literacy ...'. Such remarks suggest new literacies have a similar kind of life trajectory to an automobile: new in 2009, semi-new in 2010, and old hat by 2011. Against this kind of 'that's so yesterday' perspective, we think 'new literacies' are best understood in terms of an historical period of social, cultural, institutional, economic, and intellectual change that is likely to span many decades – some of which are already behind us. We associate new literacies with an historical conjuncture and an ascending social paradigm. From this perspective the kinds of practices we currently identify as *new* literacies will cease to be 'new' once the social ways

characterizing the ascending paradigm have become sufficiently established and grounded to be regarded as *conventional*.

The kind of transition we are talking about here is well recognized and spoken about in already familiar terms. These include the ideas of a transition from modern to postmodern worldviews and theories, from an industrial society and/or economy to post-industrial or information/ knowledge societies and/or economies, from a conception of societies based on the model of autonomous but related nation-states toward an increasingly global configuration, and so on.

The 'post-' concept is handy here because it reminds us that we are not talking of absolute alternatives, complete breaks, or binary distinctions. Postmodernity is not a *displacement* of modernity, a move to something completely different. It is more like a *transcendence*, in which elements of an earlier state of affairs are carried over and reshaped to become parts of new configurations. Ideas and practices evolve rather than become displaced – as the failure of many attempts at revolutionary change attest. We find revamped forms, say, of industrialism within post-industrialism. Technologies of industrial scale and type get transformed in ways that provide necessary and harmonious or coherent complements to digital-electronic computing and communications technologies, and integrated into new styles and sets of practices. We do better here to think in terms of continua between the various dimensions of the different paradigms. These paradigms are constructions out of complex phenomena. They are attempts to 'summarize' broad trends and patterns evident in different times and places under different conditions. They are 'idealized types' that do not exist in pure form, and that are always 'more or less' along their varying dimensions: more of a tendency toward this emphasis or priority here, less of an emphasis or tendency there; varying amounts and degrees occurring from case to case and instance to instance; and always with traces of the former in the 'substance' of the later, or the 'post'.

When we think about the current conjuncture in terms of a tendency away from one paradigm and more toward another, we think in terms of shifts in relative emphasis along the following kinds of continua (Table 3.1).

Under the first paradigm there is a tendency or a default toward thinking, acting, and organizing life around ideas of singularity, centredness, enclosure, individualization, and the like, whereas under the second paradigm there is a tendency toward thinking, acting, and organizing life around notions of multiplicity, flexibility, dispersion, non-linearity, and the like. This can be illustrated by reference to ways of thinking about and responding to people, to work, expertise, life trajectories, institutional roles and styles, and even about intelligence.

Table 3.1 Some dimensions of variation between paradigms

Modern/industrial paradigm	Postmodern/post-industrial/ knowledge society paradigm
Singular/Uniform	Multiple
Centred	De-centred
Monolithic	Dispersed, modular
Enclosed/Bounded	Open/Unbounded
Localized/Concentrated	Distributed
Stable/Fixed	Dynamic/Fluid/Flexible
Linear	Non-linear
'Push'-oriented	'Pull'-oriented
Individualized	Joint/Collaborative/Collective

For example, until relatively recently it was typical to think of a person – an individual – in terms of a single identity, a core 'self', a more or less stable and permanent 'personality' of a particular 'type'. While we recognized that individuals were 'complex' to some extent and in some sense, we nonetheless tended to emphasize their particularity in 'character', point of view, and so on. Today we are much more inclined to think of people as much more complex; indeed, to make a fetish of this complexity. People see the world from *many* perspectives, depending on which Discourse they are 'in' or 'operating out of' within a particular situation or context. We speak of multiple subjectivities here, and think of identities as multiple and shifting. Far from expecting people to manifest a singular abiding 'centre', we think more of people 'doing life' out of many Discourses, and of being able to move among many ways of thinking, speaking, valuing, judging, deciding, desiring, and acting. Not so long ago we thought in terms of individuals pursuing more or less linear life courses or trajectories, often within a more or less single location. The default norm was one job, one home, one family, one social class or status, etc., *for life*. For many, if not most, people living in modern (sub)urban environments this no longer holds. Increasingly, our default norm for life trajectories is complex and non-linear.

Similarly, many authors and researchers have written about the 'new' capitalism (e.g., Reich 1992) by mapping trends away from norms of production and distribution being located and organized in one place/ country/site, around one core product or service, under the control or auspices of a single company, firm or corporation, with a specific infrastructure, and with stable roles, relationships, and responsibilities accompanying designated long-term positions within the workforce. The 'new' capitalism

(Gee et al. 1996) or 'post-capitalism' (Drucker 1993) is seen as organized materially around dispersed sites – often global – involving multiple companies, with workers often being hired for single projects or product runs, with flexible/shifting roles and responsibilities. The familiar norm of expertise residing in individual persons attached to different strata within the enterprise often gives way to the norm of distributed expertise and collective intelligence.

Similarly, John Hagel and John Seely Brown (2005) talk about how the different technologies associated with industrial modernity and post-modern knowledge societies respectively generate different common-sense models of how to mobilize scarce resources in order to get the things done that need to be done within societies. They talk of a shift away from a 'push' model of mobilizing resources toward more of a 'pull' model. This shift underpins very different institutional styles, as we will see in our account of social learning later in this book.

These, obviously, are not just shifts in ideas and beliefs; they entail changes in *practices*. Life gets organized differently. The social ordering of work, domesticity, and leisure are reconstituted. Changes in one sphere or dimension of life ripple into changes elsewhere. People who previously never had to worry about résumés before, let alone keeping them updated and bolstered by project portfolios, now have to. People who need to be mobile must find new ways to maintain personal relationships and communicate. Sooner or later these changes 'show up' in the things we do and how we do them – including the literacies we enact and how we perform them. Improvising occurs on the fly; resources and services get 'mashed up' as people respond to contingencies. It is in the details of such intricacies and their shifts that we find the 'new'. And this 'new' endures over decades, not least because for many people the kinds of changes we may be somewhat familiar with are still somewhere away in the future, and 'late arrivals' are part of the frame and need to be accommodated.

In the midst of these recent and ongoing shifts toward 'reconstituting' and 'reconfiguring' everyday practices in patterned and identifiable ways, and to a greater or lesser extent from setting to setting, we find emerging and evolving ways of generating, communicating, and negotiating meanings via encoded texts; ways that become socially recognized well enough and for long enough to be identified as new literacies – not simply in and of themselves, but as elements of a larger abiding 'new'. That is, 'new' is not over on an 'instance by instance basis' when, for example, MOOs give way to 3D role-playing worlds or chat palaces; or stand-alone, single-player, ascii-interface video gaming gives way to online, massively distributed, three-dimensional, avatar-based, multiplayer collaborative gaming that includes

real-time text chat, voice chat, and even video/webcam chat. So far as new literacies are concerned, there will be many cameo performances as well as more enduring support roles and lead roles in this evolution. Some specific instances of new literacies may come and go quickly – playing no more than walk-on roles. Despite their short lives, they are nonetheless identifiable as new literacies. They are all historically significant as parts of a larger picture that is not fleeting. To dismiss them as 'old' new literacies bespeaks a failure of historical imagination. Alternatively, to look for what is new in specific instances of 'new' literacies may be a good way of enhancing our perspective on current trends and priorities in our approaches to teaching and learning.

Toward 'new' in theory and in practices

At the end of Chapter 1 we mentioned the idea of literacies that can be regarded as 'new' in an *ontological* sense – being composed of different kinds of 'stuff' from conventional literacies. We foreshadowed a distinction between new *technical* 'stuff' and new *ethos* 'stuff'. At the heart of the idea of new technical stuff is *digitality*: the growth and ongoing development of digital-electronic technologies and the use of programming languages (including the use of source code and binary code) for writing programs, storing and retrieving data, establishing electronic networks, collaboration platforms, and so on. At the heart of the idea of new ethos stuff is the idea of technological change aligning with a range of increasingly popular values. This chapter spells these ideas out to yield an account of new literacies that will underpin discussion in the remainder of this book.

'New technical stuff'

Much of what is important for literacy about the 'new technical stuff' is encapsulated in Mary Kalantzis' idea that 'You click for "A" and you click for "red"' (Cope et al. 2005: 200). To this we might add that you also click for 'send' and click to retrieve. Basically, programmers draw on syntactic and semantic rules for a given programming language, along with a core library of commands, to create a series of commands that ultimately is stored as binary code (combinations of 0s and 1s) and which, in turn, drives different kinds of applications (for text, sound, image, digital video, word processing, animation, communications functions, etc.) or digital-electronic apparatuses (computers, printers, games hardware, CD and MP3 player interfaces, etc.). Someone with access to a fairly standard

computer or other mobile digital device and internet connection, and who has some basic knowledge of standard software applications can create a diverse range of meaningful artifacts using a strictly finite set of physical operations or techniques (keying, clicking, selecting, copying, dragging), in a relatively tiny space, with just one or two (albeit complex) 'tools'. They can, for example, create a multimodal text and send it to a person, a group, or an entire internet community in next to no time and at next to no cost, and receive feedback on this text, almost immediately. The text could be a photoshopped image posted to Flickr.com or to Worth1000.com. It could be an animated birthday card sent to a close friend. It could be a short animated film sequence using toys and objects found at home, complete with an original music soundtrack, embedded within a blog post. It could be a slide presentation of images of some event with narrated commentary, or edited video clips from a video game that spoof some aspect of popular culture or that retell some obscure literary work.

The technical stuff of new literacies is part and parcel of generating, communicating, and negotiating encoded meanings by providing a range of new or more widely accessible resource possibilities ('affordances') for making meaning. The technical dimensions of digital technologies greatly enlarge ways of *generating* encoded meanings available to people in comparison with what we might call conventional literacies. Someone who would readily acknowledge not being able to draw or paint or take photos with any artistic or other merit whatsoever can, in a relatively short amount of time, create a collage of images and text to contribute to a popular online meme, such as the Sad Keanu meme where a paparazzi shot of a seemingly dejected-looking Keanu Reeves (a movie actor) got placed in a range of other contexts in a show of solidarity with Reeves (see: Know Your Meme 2010b). Generating this kind of encoded text requires access to image editing software (such as is available at Gimp.org), some understanding of basic image editing 'moves' (like using the marquee tool by manipulating the mouse and click-and-drag actions to draw around and crop an image), using an image search engine to locate an appropriate new background image, knowing how to paste the cropped image onto a new background, using a blur or smudge tool to blend the cropped image into its new background, perhaps using the textbox function to add some text, then using a series of mouse clicks to upload the final image to a publicly shared online space. All in the space of ten minutes or so. In the past, even with access to a photography lab or printing outfit, or being extremely good with scissors and magazine images, this kind of high-quality, visually convincing collage or remix would have taken quite some time to produce and have been difficult to share with others on the scale now possible online.

Twitter practices present another example of how the technical 'stuff' of new technologies enables alternative or new ways of generating encoded meanings. Twitter is a microblogging service that constrains users to posting messages – 'tweets' – of 140 characters maximum. The technical restrictions on tweet length saw users draw on existing text-messaging abbreviations and phonetic conventions to save characters, along with a range of Twitter-specific shorthand notations in their posts to enhance what could be said and to whom, and how 'like' things could be found by others. For example, placing an '@' symbol in front of another person's Twitter username signals that one's tweet is directed at them specifically. Prefixing a word or phrase with a hashtag (#) automatically groups together all posts that include the same hashtagged word or phrase. For example, many television shows spark viewer-generated commentary on Twitter while the shows are airing. Tweeters can use the hashtag feature and the name of the show (e.g., #GhostHunters, #TopGear) to join in a conversation with others about the show. Twitter also uses these hashtags to identify topics 'trending' on the service, too (e.g., #Wikileaks, #2011predictions). Tweeters can make use of URL-shortening services, such as TinyURL.com, Bit.ly, and Goo.gl, to save character spaces when wanting to share an online site with others. And many Tweeters have installed the Twitter app on their smartphones for quick, on-the-fly access to Twitter, or have added the Twitter app to their Facebook profile, which automatically (re)posts their tweets to their Facebook wall. Understanding the technical dimensions of Twitter – the 140-character limit, the use of hashtags and other symbols to 'manage' and 'retrieve' content, the availability of targeted apps – and how to set up and maintain an active Twitter account are key tools in knowing how to use this social space effectively.

The new technical stuff of digital technologies also has greatly expanded the possibilities for *communicating* encoded meanings. Email applications mean that a single message can now be sent to hundreds of people simultaneously, especially if one is a member of a large email discussion list, or accidentally sends a message to all co-workers at a large institution. Social news sites like Reddit and Slashdot enable communicating directly with others from around the world (sometimes with the use of online translation services like Google Translate or Babelfish). To reprise an earlier example, it's now possible for a three-year-old girl to create a toy-based stop-motion animation and, with her father's help, post it to a video-sharing site like YouTube where – to date – it's been viewed over 9,000 times (see Thomas and Tufano 2010). This contrasts starkly with the conventional practice of pinning pre-schoolers' artworks to the fridge door for a few family members and friends to see. User-generated content

hosting sites like YouTube (and Flickr, Panoramio, Blip.tv, Aniboom.com, Warcraftmovies.com), make it easy to share meanings across time and space, and even across languages and cultures. For example, in 2006, a self-recorded clip of a North American male lipsyncing and dancing to a Romanian pop song while remaining seated in his chair throughout caught on as a popular internet meme (Knobel and Lankshear 2007). The performer's mobile facial expressions carried much of the humour of this video, rather than anything said or sung. Countless blogs and discussion boards linked to the video – originally posted to YouTube – and it was reposted on various video hosting sites. Technically speaking, uploading to user-generated content sites is a matter of establishing an account with the service, accessing the upload function within the service, locating the file on one's computer or other digital device, and then perhaps writing some background or contextual details to accompany the uploaded file. Digital networks and hypertext markup language make it possible to link to the original video or embed it in other online spaces. In short, this kind of new technical stuff opens up myriad channels for communicating meanings across a broad spectrum of people and interests.

The technical stuff of digital technologies also facilitates new ways of *negotiating* encoded meanings. Instant messaging interfaces enable people to work synchronously across large distances to jointly produce meanings in the form of, say, dialogue-based role plays that provide the base structure for fully developed fan fiction narratives (see Thomas 2006). Social news sites with their comments, response and ratings functions enable posters to question, clarify and elaborate upon meanings. Reviewer comments on users' posted creative work (e.g., on Fanfiction.net, DeviantArt.com, Aniboom.com) often feed into changing or tweaking the work, or into subsequent productions (see, for example, Black 2007).

The shift from material inscriptions to digital coding, from analogue to digital representations, has unleashed conditions and possibilities that are massively *new*. In the case of the shift from print to the post-typographic, Bill Cope (in Cope et al. 2005) describes what this means for the visual rendering of texts. He explains that digital technologies reduce the basic unit of composition from the level of a character to a point below character level. In the case of a text on a screen, the unit of composition is reduced to pixels. This means that text and images can be rendered together seamlessly and relatively easily on the same page and, moreover, that text can be layered into images – both static and moving – (and vice versa) in ways that were very difficult, and in some respects *impossible*, to do physically with the resources of print.

Reflection and discussion

The broadcast media run seemingly endless stories about young people reading and writing less and less these days. Yet large and increasing numbers of young people devote much time and energy to projects that involve remixing practices like machinima, photoshopping and music composing, and fan practices like manga drawing and fanfiction writing, etc. These projects very often employ sophisticated and/or complex narratives (and other generic forms, such as composing procedural texts and the like).

- How do you explain all this effort?

- Why do you think such practices are not considered significant or important by broadcast media accounts of young people's reading and writing habits?

- Do you regard them as significant or important *practices*? If so, why? If not, why not?

- Do you regard them as significant or important *literacy* practices? If so, why? If not, why not?

In an old book there was a section with the plates and a section with the text ... For many hundreds of years ... text and images were quite separated, for very pragmatic reasons ... [I]n the first half of the 20th century ... photographic techniques ... moved away from letter press and plate systems [bringing text and image] together a bit more [with] film and plates, but it was still very difficult. But now the elementary manufacturing unit has changed radically. The raw materials you work with are on a screen. So when you press a key, it actually builds a visual representation out of pixels.

... [Moreover] if you go back one layer ... beyond pixels, the same compositional stuff produces sound as well. So you have got these basic things about human communication – namely, language, visuals and sound – which are all being manufactured in the same raw material on the same plane in the same platform.

<div align="right">(in Cope et al. 2005: 200)</div>

'Podcasting' provides another contemporary example. Let's imagine the case of a hypothetical conference going on at this very minute. Given any

necessary permissions being granted, the conference organizers or a delegate can podcast a presentation (it might be a keynote, or simply a regular paper that the person organizing the podcasts believes will be of interest to other people). The podcaster records the presentation on a suitable digital recorder (e.g., an mp3 player with recording functions, or a digital voice recorder, or even a laptop running sound-editing software with built-in recording options, like Audacity). Many of these devices record audio files in a 'wav' format, which generates a high-fidelity, easy-to-edit, but very large file. When the talk is finished, the conference delegate transfers the audio file from their recorder to their laptop, converts the file to an mp3 format using software like iTunes, Garageband or Audacity, which maintains the fidelity of the recording (although there is some micro-restructuring of the sound that audiophiles attend to), but reduces the size of the file and makes it more 'playable' using a range of software applications and audio devices. The podcaster uploads the digitally encoded audio mp3 file to a server, and embeds RSS (Really Simple Syndication) code so that subscribers to the podcast series are notified when a new podcast is available for downloading.

Technically speaking, to podcast means that one posts audio files reasonably regularly to the internet, and interested others can subscribe to the podcast and receive new audiofiles automatically. That is, podcasts are 'syndicated' (i.e., the location of the files online is 'pointed to' by 'really simple syndication' code [RSS]), and podcast aggregators can be used to 'subscribe' to all of this podcaster's posted audio files. These aggregators – like gPodder.org, Miro (GetMiro.com), Juice (Juicereceiver.sourceforge.net), or iTunes, for example – will automatically check for and download newly posted podcasts that can be transferred to portable listening devices and played when convenient. Posting audio files online doesn't necessarily require RSS feeds and syndication, however. Our conference delegate could just as easily upload a single audio file to a server, and then make a post to their weblog that contains a hyperlink to that file. From that moment, anybody who accesses the blog can immediately access the sound file of the presentation by clicking on the appropriate hyperlink (see also Shamburg 2010).

Our recorded conference presentation can be augmented in various ways, such as by the podcaster splicing a short introductory narrative into the front end of the file, or by adding an accompanying short video sequence filmed during the presentation, or an automated copy of the slideshow used by the presenter to illustrate key points. This file can be uploaded to the internet and/or burned to a CD-ROM for easy sharing, and so on. The same – or elements of the same – binary functions and programming language conventions and 'stuff' that encode sound can also be used to encode images

and video, the display interfaces themselves, and any online file hosting and networking services. The net result is a seamless, clean, elegant and rapid production that has global 'reach' at close to 'real' time (for examples of conference podcasts, see Clippodcast (www.clippodcast.com) or search for 'conference' at Podcastalley.com).

The kinds of generative 'enabling' and 'sharing' involved in such examples remain quite revolutionary. Relatively unsophisticated home-based desktop publishing software can generate text and image effects that the best printers often could not manage under typographic conditions. 'Publishing' is no longer limited to print or images on paper, but can also include additional media like voice recordings, music files, 2D and 3D animation, video, photoshopped images, and scanned images of paper-based artworks. Even the concept of 'text' as understood in conventional print terms becomes a hazy concept when considering the array of expressive media now available to everyday folk. Diverse practices of 'remixing' – where a range of existing materials are copied, cut, spliced, edited, reworked, and mixed into a new creation – have become highly popular in part because of the quality of product 'ordinary people' can achieve.

Machinima animations provide a good example here. 'Machinima' is the term used to describe the process where fans use video games as a kind of movie set and game characters as actors to render new animated texts on their desktop computers. (In the recent past, such text production demanded very expensive, high-end 2D and 3D graphics and animation engines, and was largely confined to professional animators.) Creating machinima can involve using tools such as script editors that take advantage of the affordances of the game engine itself – e.g., enabling the remixer to manipulate point-of-view or camera angle options, pre-'script' or map player and non-player character movements, mod textures and objects in scenes, as well as use resources like backgrounds, themes, characters, and settings already available in the game. Alternatively, a machinima editor can take a puppeteer's (rather than a programmer's) approach, and manipulate characters and action within game-provided 'sets' in real time, recording the scene with screen capture software like CamStudio or Fraps, and then editing the footage to create a seamless whole. One can now buy, download for free, or subscribe-to-use software developed expressly for designing and editing one's own machinima using content from any video game (e.g., MovieStorm, iClone). Those new to the machinima creation process can access online tutorials and interviews with high-profile machinima makers for insider tips on how to create one's own high-quality animations, or buy any number of how-to books (e.g., Kelland et al. 2005; Hancock and Ingram 2007; Luckman and Potanin 2010).

According to Machinima.com (now defunct), a once popular how-to website and archive of machinima animations:

> You don't need any special equipment to make Machinima movies. In fact, if you've got a computer capable of playing Half-Life 2, Unreal Tournament 2004 or even Quake [all three are popular video games], you've already got virtually everything you need to set up your own movie studio inside your PC. You can produce films on your own, or you can hook up with a bunch of friends to act out your scripts live over a network. And once you're done, you can upload the films to this site and a potential audience of millions.
>
> (2006: 1)

The term 'machinima' is also used to describe the genre of animation generated by this process. These animations may be fanfics and extend a game narrative in some way, or the game may simply provide tools and resources for producing an entirely unrelated text. Machinima can achieve the highest professional standards. Animations completed in the early 2000s, like *Hardly Workin'* and *Red vs. Blue*, have won film festival awards worldwide. Machinima videos are increasingly used to focus attention on social and political issues. For example, *Drained of Life* (2009) was made by the machinima production company Strange Company, in conjunction with students from Dalkeith High School in Scotland (archive.org/details/DrainedOfLife). This expressed student concerns with environmental issues and the need for popular action for improvement. Best known, perhaps, is eight-member Oil Tiger Machinima Team's *War of Internet Addiction* made within the massively multiplayer online game *World of Warcraft*. The Oil Tiger Machinima Team, headed up by Corndog, recruited around 100 *World of Warcraft* players inside China – all of whom donated their time, and many of whom remain unknown in person to the Team – to jointly create a 64-minute video that took about three months to complete (Corndog, in interview with Chao and Ye 2010: 1). The video protests about Chinese government restrictions on *World of Warcraft* server access that confine Chinese players to servers located within China. Corndog explains some of the technical dimensions involved in working in such a distributed manner:

> We cooperated through the Internet. For dubbing, for example, we discussed how to do it online, how to understand the emotion of characters, [then] they emailed me the audio files and I edited them. If there was a need to fix it, we would discuss by chatting online again.
>
> (Corndog, in interview with Chao and Ye 2010: 1)

The video was uploaded to Tudou.com – the largest video-sharing site in China – in January 2010, and attracted millions of viewers within days of going online. It has since been posted to myriad spaces online, including YouTube. In April 2010, *War of Internet Addiction* won the top prize at the prestigious annual Tudou Film Festival celebrating the best Chinese online films.

Similarly, game 'modding' involves using a video game's image and strategy engines to create fan-driven 'modifications' to the game. Modifications can generate a new game altogether, or remain 'true' to the game's universe (i.e., how characters can move, act, solve problems, and what kinds of challenges are put in place, etc., within the world of the game) and, say, add a new mini-adventure or quest for player characters to complete. Such additions might expand a level by adding new skills or qualities to the game, or create an entirely new level for players to complete that introduces a further layer of difficulty or complexity to the game (cf. Squire 2008; Steinkuehler 2008). Modding can also include developing original resources, like 'new items, weapons, characters, enemies, models, textures, levels, story lines, music, and game modes' (Wikipedia 2010e). Most mods require the user to own the original game in order to run the mod (ibid.). Some game mods have subsequently become more famous than the original game (e.g., *Counter-Strike*, a mod of *Half Life*), or have directly influenced and shaped subsequent titles (e.g., Trauma Studio's *Desert Combat*, which modded *Battlefield 1942*, resulted in the studio being bought up by the company that owns *Battlefield 1942* and put to work on *Battlefield II*) (all examples from Wikipedia 2010e).

Music can now be 'sampled' and 'remixed' using desktop computers and audio editing software (see Chapter 4). Software that comes bundled with most computers, or is otherwise easily downloaded from the internet, is all one needs for converting music files from a CD into a format that can be edited (e.g., wav), editing and splicing segments of different songs together, and converting the final music files back into a highly portable format (e.g., mp3) that can be uploaded to the internet for others to access, or used as background soundtracks in larger multimedia projects. The commercial sector has recognized the popularity of do-it-yourself music remixing, and music mix software packages like *MixPad*, *Cakewalk*, or *AV Music Morpher* can be acquired for the price of a video game. Programs that run on gameplaying machines, like *MTV Music Generator 3: This is the Remix* for PlayStation 2 and Xbox, are also available.

This *enabling* capacity of what essentially is binary code and associated hardware – the new technical 'stuff' – is integral to most of the new literacies that will concern us here. A lot of this enabling is by now so commonplace

that we take it for granted, such as in everyday templates and interfaces. Examples include:

- blog templates and authoring tools that automate the 'look' of one's text (and make it easy to change font style, colour, size, to include images, video or hyperlinks);
- writing/publishing tools like word-processing software that make it easy to change fonts and text layout (e.g., columns, alignment, page orientation), or to insert images or figures or even sound files or live internet links, play with colours, and so on, by simply selecting a menu option;
- customizable websites that enable users to add modules or 'apps' that act as direct links to, or summary feeds of, particular news and information services, games, social media spaces, and the like;
- being able to open multiple programs – and windows or tabs within these programs – simultaneously, and move content between them using the copy-and-paste function;
- instant messaging interfaces that enable us to include iconic emoticons, attach files, and save conversation transcripts;
- email interfaces that make it easy to read and respond to email, keep copies of sent messages, store and manage messages;
- being able to complete and submit forms online due to the development of 'editable' or 'interactive' webpage interfaces;
- website interfaces that encode password and username functions that enable authorized access to particular online spaces;
- collaborative interactional spaces mediated by subscribing to email discussion lists using generally standardized subscription processes (e.g., sending an email to a listserv program that includes your full name and the command, 'subscribe');
- dedicated apps that directly access an online service without having to open a web browser;
- online forum interfaces that allow members to post, read and respond directly to comments;
- online real-time text-based chat interfaces that are now embedded in websites and no longer require downloading and installing specially developed 'client software' to participate.

These very interfaces and templates mean a lot of the complex program coding work has already been done for everyday users, which greatly enhances their opportunities to engage in and practise a range of new literacy practices.

> ### Reflection and discussion
>
> Some people would argue that all this 'new technical stuff' and the relative ease of making copies of texts and widely distributing them makes it too easy to blur the lines between public and private (e.g., sexting, webcam streaming of extremely private events, PowerPoint shows about sexual conquests) with often devastating consequences for people. Discuss some of the issues currently in the news to do with the private being made deliberately or inadvertently public, the moral dimensions of participating in spreading private texts publicly, and how educators might build such issues into new literacies instruction.

New technical stuff and copyright

Finally, there is a major issue associated with a feature of digitally encoded material available on the internet that introduces something profoundly new. The point in question is made by Lawrence Lessig (2004, 2008). It has to do with copyright and a fundamental difference between physical space (or what Lessig calls 'real space') and cyberspace.

Lessig (2004: 141–3) shows how copyright law in physical space distinguished three categories of use of copyrighted material: unregulated, regulated, and fair use. For example, there are various uses of a book that are not subject to copyright law and permissions because they do not involve making a copy of the text (unregulated), or because they involve only copying an amount of the book (whether by photocopying, reproducing in a citation, or whatever) or having a purpose (e.g., scholarly review and critique) that is deemed to fall within the limits of 'fair use'. So A can lend a book to B to read, and B to C, and so on, without falling foul of copyright – since no copy of the text is made. A can even resell the book. These fall within the category of unregulated uses, because to borrow and read a book or to sell it does not involve making a copy.

But the 'ontology' of material available on the internet – 'a distributed digital network' (ibid.: 143) – is different in a fundamental respect from material available in physical space. On the internet 'every use of a copyrighted work produces a copy' (ibid.). Without exception. This 'single arbitrary feature of a digital network' carries massive implications:

Uses that before were presumptively unregulated are now presumptively regulated. No longer is there a set of presumptively unregulated uses

that define a freedom associated with a copyrighted work. Instead, each use is now subject to the copyright, because each use also makes a copy – category 1 [unregulated] gets sucked into category 2 [regulated].

(ibid.: 143)

Lessig isn't against copyright – far from it. Rather, he argues for a 'scaled' approach to copyright that enables copyright owners to set the terms by which their work can (or cannot) be reused. This includes specifying, for example, that a work can be shared, remixed, or reused with attribution to the original work, but cannot be for profit, or can be used for commercial purposes, or can be reused but the resulting work must be made available for others to reuse, and so on (for more, see CreativeCommons.org). We do not have space here to deal with the intricacies of copyright law and permissions. Instead, we urge readers who have not done so to read Lessig's books, *Free Culture* (2004) and *Remix* (2008), which reach the heart of pressing issues related to differences between paradigms distinguished earlier in this chapter and the 'worlds' to which they attach.

Lessig (2005, 2008) describes a range of digital remix practices like AMV (anime music video remixing), where people, a very large proportion of them young people, take 'found' artifacts and remix them into something new. In AMV practices, for example, participants record a series of anime cartoons and then video edit these to synchronize them with music tracks (see, for example, AnimeMusicVideos.org). Lessig discusses digital remix as a practice of cultural creativity against the background of a particular kind of approach to creative writing that has traditionally been common in North American schools. In this practice:

> You read the book by Hemingway, *For Whom the Bell Tolls*, you read a book by F. Scott Fitzgerald, *Tender is the Night*, and then you take bits from each of these books and you put them together in an essay. You take and combine, and that's the writing, the creative writing, which constitutes education about writing: to take and to remix as a way of creating something new ... And in this practice of writing we have a very particular way of thinking about how we learn to write. We learn to write in one simple way, by doing it. We have a literacy that comes through the practice of writing, writing meaning taking these different objects and constructing with them.
>
> (Lessig 2005: n.p.)

However, whereas the conventional creative writing practice as remix described by Lessig does not infringe copyright law, digital remix often does – and practitioners face the risk of legal action. Yet, says Lessig (in

interview with Koman 2005: n.p.), digital remix as a practice of cultural creativity is a kind of writing. In fact, new digital media, he says, are changing what it means to write. Digital remix, of whatever kind, involving whatever media, 'is what writing is in the early 21st century' (ibid.). It involves working with a different set of tools from those we have written with in the past, says Lessig, but 'is just the same sort of stuff that we've always done with words' (2008: 82). Now, however,

[It's] not just words, but ... images, film, and music. The technologies we give our kids give them a capacity to create that we never had. We've given them a world beyond words. This world is part of what I've called RW [read/write] culture. It is continuous with what has always been part of RW culture – the literacy of text. But it is more. It is the ability for amateurs to create in contexts that before only professionals ever knew.

(ibid.: 108)

Lessig makes two further, crucial, points with respect to the new kind of writing. First, he argues that the way today's young people in societies like our own come to know their world is 'by tinkering with the expressions the world gives them in just the way that we [of earlier generations] came to know the world when we tinkered with its words' (2005: n.p.). To this Lessig adds the claim that this new writing needs the same freedoms as did the writing of the eighteenth, nineteenth and twentieth centuries. To do it well, he says, to understand how it works, to teach it, to develop it, and to practise it require freedoms that are currently outlawed. Hence, the kind of enabling potential inherent in digital tools underpinned by the ontology of digital code is a two-edged sword under current legislation conditions. On the one hand, it 'democratizes a certain creative process' (Lessig 2005: 143). On the other hand, its very nature means that the exercise of this democratized potential puts practitioners at risk under copyright law. Lessig argues that the law must change to keep safe a 'creative commons' on which everyone can draw and to which everyone can contribute, and with that we agree entirely.

'New ethos stuff'

As we will see in depth in later chapters, large and growing numbers of people are 'joining' literacies (and devoting impressive amounts of time and energy to them) that differ greatly from mainstream cultural models of literacy of the modern era (and, particularly, of literacies as they are

constructed and engaged with in formal educational settings like schools). Much of the 'nature' of this difference is captured in Jim Gee's accounts of learning within affinity spaces (e.g., Gee 2004) – forms of what John Seely Brown and Richard Adler (2008) call *social* learning. While our interest here is wider than learning *per se*, many of the key features of affinity spaces that enable learning are nonetheless the very 'stuff' of how contemporary literacies are constituted and experienced more generally by people engaging in them. Gee describes affinity spaces as:

> specially designed spaces (physical and virtual) constructed to resource people [who are] tied together ... by a shared interest or endeavor ... [For example, the] many websites and publications devoted to [the video game 'Rise of Nations'] create a social space in which people can, to any degree they wish, small or large, affiliate with others to share knowledge and gain knowledge that is distributed and dispersed across many different people, places, Internet sites and modalities (magazines, chat rooms, guides, recordings).
>
> (2004: 9, 73)

Affinity spaces instantiate participation, collaboration, distribution and dispersion of expertise, and relatedness (ibid.: Ch. 6). These features are integral to the 'ethos stuff' of what we mean by 'new' literacies.

From Web 1.0 to Web 2.0

To grasp the significance of the idea of a new kind of *ethos* to the concept of new literacies, it is helpful to first get a sense of how various emphases, priorities, and values integral to the second social paradigm sketched above have come to play out in and through the very *architecture* of the web since the late 1990s. Just as the 'new' capitalism *'wrote'* values of collaboration, distributed expertise, collective intelligence, communities of practice, team orientation and the like into the very *practices* of work – and, hence, into the very *structure*, or social *order* – of many contemporary workplaces, so a number of pioneering organizations, companies, and individuals can be seen as having actively worked to develop a web architecture that supports social practices of many kinds and across many domains of everyday life grounded in these same values. The shift in web architecture captured in the familiar distinction between Web 1.0 and Web 2.0 can be seen as a specific concrete instance of the tendency toward thinking and acting, and otherwise organizing ways for doing everyday life – and, particularly, for doing literacies – around values central to the currently ascending social paradigm.

While the term 'Web 2.0' had been coined prior to the 2004 O'Reilly Media Web 2.0 conference, it was this conference, and Tim O'Reilly's (2005) subsequent account of distinct business models and web design principles operating in Web 1.0 and Web 2.0 respectively, that put 'Web 2.0' on the map. O'Reilly traces the origins of the distinction between Web 1.0 and Web 2.0 to discussions that addressed issues and ideas arising from the fall-out of the 2001 dotcom crash, including the observation that the major companies to survive the crash seemed to share some features in common. Parties to the initial discussions began assigning examples of internet applications and approaches to either a Web 1.0 list or a Web 2.0 list, and analysing their key distinguishing features. Using examples like the difference between Netscape and Google, and between Britannica Online and Wikipedia, participants focused on three key related differences. One is the difference between packaged software applications that operate on the desktop and software applications that are built and operate on the web. The second is between web products and services (packages) that are basically consumed by users and those that enable and encourage forms of interactivity between producers and consumers, owners, and users. The third is the difference in business models between using web content to make product available to consumers, on one hand, and putting interactive software applications on the web so that users can help build or create the product. In the web 1.0 business model, producers create the product and make it available. In the Web 2.0 business model, customers or users actually help build the business for the 'owner', by using the software to generate content – such as ideas, data, texts, images, video content, etc. – that creates value, and where this value brings advantage to the 'owner' of the business. The key to this business model is *leverage*.

O'Reilly (2005) uses examples like the difference between Netscape (the now extinct web browser) and Google's search engine, and the difference between Britannica Online and Wikipedia to illustrate the distinction between Web 1.0 and Web 2.0.

Netscape (the 'old' software paradigm of packaged software to be downloaded to the desktop) made its browser and in-built email, calendar, news, etc., software suite available free and updated it regularly. At the same time it produced a range of expensive server products for content producers. By making the browser freely available for download for millions of people to access web content, Netscape aimed to include default bookmarks within the software itself and/or to help drive traffic to paying customers' websites via its search engine and ads, along with providing server space for customers wanting to establish an online presence for their business. Netscape did not really survive the dotcom crash (it limped along

for a few years, but by 2008 was no longer updated/supported by its parent company). The relationship between Netscape and its users was strictly one between *producer* of packaged software and services and *consumers*.

By contrast, Google, which survived the dotcom crash with bravura, initially created a powerful web search engine. There is no product to be downloaded or package to be consumed. Instead, there is an online resource that users *perform*. Google's search engine service functions as an *enabler* for users – it helps optimize our internet experience by helping us find what we are looking for in a way that maximizes the likelihood of us getting to 'the best information' as efficiently as possible. Of course, 'efficiency' here is a partnership between the efficacy of the search engine and the savviness of its users. What users get from Google.com may reflect their own efficiency in terms of identifying useful search terms, understanding the role of Boolean logic in an effective search, knowing how to conduct a natural language search, and being familiar with the full range of search functions available on Google (e.g., knowing about Scholar.google.com; tweaking search preferences; knowing that entering the following string into Google's search window enables a particular website or space to be searched: searchterm site:URL).

At the same time, there is an interesting and important *reciprocity* here. The search engine enables users to locate information, but at the same time users contribute to the value of the search engine by enhancing 'the scale and dynamism of the data it helps to manage' (O'Reilly 2005: n.p.). Google is, ultimately, a massive database and data management system, that evolves and improves and becomes more responsive the more it is used. Users *participate* in and through Google. Indeed, they actively *collaborate* – whether they are aware of it or not – with Google.com by contributing to building a continuously improved and more dynamic database that is mediated by Google's page rank system. To this extent, the information one user gets as a consequence of conducting a particular search is a function of searches that other users have completed and drawn on previously. The database is, so to speak, at any point in time a product of the *collective intelligence* of all users (as enacted through use of keywords, Boolean logic, natural language, etc., and which search return for a given query is most clicked on and, therefore, deemed most relevant, etc.). To all intents and purposes, Google's 'product' is the database that is *managed* through the software and generated through millions of users performing the software. The users are an integral part of Google's production; integral to developing its product. And the service automatically improves the more that people use it – a principle that O'Reilly identifies as inherently Web 2.0. Production in this case is based on 'leverage', 'collective participation', some degree of

'collaboration', and distributed expertise and intelligence, much more than the manufacture of finished commodities by individuals and workteams operating in official production zones and/or drawing on concentrated expertise and intelligence within a shared physical setting. Google makes almost all of its money through its advertising programs (see the 'Google' entry at Wikipedia.org for a useful overview of how Google.com works).

Similarly, elements of Amazon.com's enterprise enable user interactivity with the company and its website. O'Reilly (2005) notes that Amazon harnesses user activity to produce better search results than its competitors. Whereas competitors typically lead with the company's own products or with sponsored results, Amazon always leads with the 'most popular' item corresponding to the search terms. The popularity index is a real-time computation based on an amalgam of sales and 'flow' around a product (e.g., how much user attention the book obtains, other books bought by customers who buy the book in question, and how these other books are selling and are rated), and so on. Second, he argues that Amazon's database for books has now become the main source for bibliographic data on books. According to O'Reilly, like its competitors, Amazon obtained its original database from R.R. Bowker, the ISBN registry provider that publishes *Books in Print*. However, Amazon outstripped and transcended this kind of data.

> [The company] relentlessly enhanced the data, adding publisher-supplied data such as cover images, table of contents, index, and sample material. Even more importantly, they harnessed their users to annotate the data, such that after ten years, Amazon, not Bowker, is the primary source for bibliographic data on books, a reference source for scholars and librarians as well as consumers ... Amazon 'embraced and extended' their data suppliers.
>
> (ibid.: n.p.)

In other words, Amazon leveraged collective intelligence in the form of reader engagement and consumer data into the number one bibliographic data source on books, providing a free service for scholars as much as consumers, while simultaneously outstripping competitors in sales. In doing so, it turned users into distributed 'experts' and 'authorities' on book data. It also transformed bibliographic data directories from centralized published sources to a collaboratively generated, freely available, and 'always on' and permanently updated searchable database in multiple languages, serving multiple countries at the disposal of anyone who has internet access.

The same can be said for more recent developments regarding Web 2.0 services that have developed one-stop applications – or 'apps' – for directly

accessing the service, rather than needing an internet browser *per se*. Apps act like 'client' software that comprises a small program serving a particular and typically singular function. They run on mobile devices like smartphones and tablet devices. Many currently available apps leverage users' input to improve the program's functionality itself. (For example, Yelp relies on users' reviews of shops, restaurants, and things to do/see to develop its recommendation service.) Augmented reality apps like Wikitude and Layar use geotags and data from a range of online sources (much of it contributed by users) to compile just-in-time, just-in-place information about where you are. Other apps blend advertising/marketing with fundraising (e.g., Causeworld). Still others provide click-and-go access to established online Web 2.0 services, like Wikipedia, Facebook, and Google Search.

This speaks to a new emerging business model that aims at directing users' attention to particular services, rather than encouraging more free-ranging browsing of the internet *per se* (O'Reilly 2010). It is an interesting development in terms of shifts within Web 2.0 applications and what it might mean when the internet itself becomes a series of 'walled gardens' (via apps) and online spaces – the latter described as the 'creative' or 'open' internet by O'Reilly – where users themselves create and generate their own resources to meet their own purposes. For O'Reilly, both kinds of spaces – open and closed – are reciprocal and are important where business and the internet are concerned: 'Openness is where innovation happens; closedness is where [monetary] value is captured' (ibid.).

Reflection and discussion

Spell out what you understand by 'leverage' as it applies to a business model for the web.

- How would you respond to the claim that leverage necessarily involves some degree of *exploitation* of internet users?

- To what extent do you believe that the open and closed spaces described by O'Reilly are, indeed, *reciprocal*?

Looking beyond 'business'

Likewise, the online version of *Encyclopedia Britannica* is a classic instance of Web 1.0 principles. It is an online commodity that consumers can access with a subscription fee. It offers packaged content generated by reputed

experts on a topic recruited by the company – just as in the paper version. The line between producers and consumers is hard and fast. Its business model and its business purpose are, to all intents and purposes, the same as Netscape's were.

By contrast, the free, collaboratively produced online encyclopedia, Wikipedia.org, reflects the principle of mobilizing collective intelligence by encouraging free and open participation, and trusting to the enterprise as a whole functioning as a self-correcting system. Whereas conventional encyclopedias are produced on the principle of recognized experts being contracted to write entries on designated topics, with the collected entries being formally published by a company, Wikipedia entries are written by anyone who wants to contribute their knowledge and understanding, and are edited by anyone else who thinks they can improve on what is already there. In other words, it is an encyclopedia created through *participation* rather than via publishing. While identifiable people are responsible for beginning and overseeing the initiative, the content is generated by anybody willing to do so.

The idea is that as more and more users read and edit entries online, the more the content will improve. At the same time, ideally, the content will reflect multiple perspectives; excesses and blindspots will be edited out; and by countless incremental steps the resource will become increasingly user friendly, useful, reliable, accountable, and refined. While there are some blips in this ideal – especially with respect to controversial topics that often see a page 'locked' or even removed from Wikipedia – the operating

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Reflection and discussion

- What implications do you think Wikipedia has for 'knowledge'?

- What becomes of 'experts' and 'expertise' within spaces like Wikipedia?

- Wikipedia is often associated with the open source software principle coined by Eric Raymond that 'with enough eyeballs all bugs are shallow'. What does Raymond's principle mean? To what extent do you think it applies to the operating principle of Wikipedia?

- Do you think Raymond's principle could be applied to school-based learning? If so, how and where?

logic for this encyclopedia remains one of distributed and collective expertise. Trust is a key operating principle (which is why, for example, there is a collective uproar when politicians' offices are found to have interfered with an entry in order to paint someone in a better or worse light). The ethos is to reach out to all of the web for input, through limitless participation, rather than the more traditional belief that expertise is limited and scarce, and that the right to speak truths is confined to the 'properly credentialled'. The idea is *not* that anyone's opinion is as good as anybody else's but, rather, that anyone's opinion may stand until it is overwritten by someone who believes they have a better line. The right to exercise this belief is rarely constrained (see also Lankshear and Knobel 2006: 89–92).

Moreover, the example of Wikipedia raises an important point that we will return to later. This concerns the relationship between the concept of Web 2.0 as a *business model*, and the existence of Web 2.0 services and resources as a *platform for participatory culture* (Jenkins 1992, 2006b; Jenkins et al. 2006). Resources and services that can be seen in terms of a business model – and that were originally conceived and named in terms of a business model – can *also* be seen as generating vast resources and rich affordances for diverse forms of popular participation and collaboration based on affinities and social relationships occurring on a truly massive scale. The relationship is complex and easily blurred. It is also very important. In short, classic Web 2.0 success stories, like Google.com and Facebook.com and other vast profitable businesses, entail complex questions about ownership of content and the like. The Wikipedia website, by contrast, is managed by a not-for-profit foundation that from time to time seeks donations to keep it afloat. Authorship is distributed and can be anonymous. Nobody owns the content. Articles are 'donated' and are free content under a GNU licence. Wikipedia enacts elements of the same business model logic as does Google. In this sense we can distinguish between (1) instances of the business model operating in ways that generate (often massive) capital and profits, and that involve complex issues of content ownership, copyright, and ultimate control of content, and (2) instances where the leveraging and collective intelligence facets of the business model are implemented for sharing rather than for profit and commercial ends (Lessig 2008: 156–62). Wikipedia might be seen as operating along similar lines to the Open Source software movement (see Richard Stallman's essays in Gay 2010), which stands against proprietary software.

Recent years have witnessed a massive growth in social software development and availability, affording opportunities for popular participation and collaboration based on shared interests or affinities, and where participants

collectively contribute to 'intelligence' and draw upon and contribute to distributed expertise, mentorship and the like. Typical examples include blogs, media and cultural content sharing sites, wikis, social networking sites, and application programming interfaces supporting the current 'apps' revolution. They provide endless further instances of the shift toward our second social paradigm.

The popular photo-sharing service Flickr.com provides an interesting example of the way in which user annotations of photos by means of 'tagging' contributes to the social construction of classification systems that are being developed from the bottom up, in contrast to traditional top-down, expert-driven classification systems. The 'tags' that users assign to photos on Flickr, and to other kinds of content on other sites, provide metadata for classifying online data to enable content searching – giving rise to what is commonly known as 'folksonomy' or 'tagsonomy'. The operating principle is simple. Flickr is a service that allows people to post photographs to the web after they have signed up for an account. For each photograph or set of photographs account holders upload to their site they can add a number of 'tags'. These are words they think describe their photo and that would lead other people who key the word(s) into the Flickr search engine to their photos (and there is a range of options that determine who a person permits to view their photos). Account holders can also invite or accept other people to be on their list of contacts. Contacts can then add tags to the photos posted by those people who have accepted them as contacts. The account holder, however, has the right to edit tags – their own and/or those added by contacts – as they wish. The millions of photos publicly available on Flickr become a searchable database of photos. Tags provide a basis for patterns of user interests to emerge in ways that enable communities of interest to build and for relationships to develop among members who share common interests, tastes, etc. They have enabled different interest groups to coalesce around shared image projects (e.g., the Tell a Story in Five Frames group, the Secret Life of Toys group).

The concept of 'folksonomy' was developed in juxtaposition to 'taxonomy'. Taxonomies are centralized, official, expert-based or top-down classification management systems. The operating principle of taxonomies is that people who presume – or are presumed – to understand a domain of phenomena determine how the individual components of that domain shall be organized in order to make a shared sense or meaning of the domain. The Dewey library classification system is a taxonomy of types of texts, according to which a given book is assigned a number on the basis of the kind of book it is deemed to be and where it fits into the system. By contrast, a folksonomy is a 'popular', non-expert,

bottom-up classification management system, developed on the basis of how 'authors' (e.g., of photos) decide they want their works to be described or 'catalogued'.

One interesting consequence of folksonomic organization is that the tags people choose say something about *them* as well as about the tagged object (O'Reilly 2005). When a user finds a photo they would not have expected to fall under a particular tag, they might think the tagger's approach to classification is sufficiently interesting to delve further into it, for example, as a pursuit of 'the idiosyncratic', or the 'quirky', or 'of someone who might think a bit like me'. The scope for participants to make their own meanings, find collaborators who share these meanings, and build relationships based on shared perspectives opens up possibilities that are foreclosed by centralized and authoritative regimes that circumscribe norms of correctness, legitimacy, or propriety.

Back to a 'new ethos': collaboration, participation and distributed expertise in fanfiction

Interactivity, participation, collaboration, and the distribution and dispersal of expertise and intelligence are central to what we are calling the 'new ethos stuff' integral to new literacies. To date, however, we have merely glossed these concepts and, moreover, have done so with reference to a narrow range of examples. Most importantly, with the exception of the example from Flickr, we have not yet mentioned the kinds of popular cultural participation and collaboration typically associated with new literacies in Web 2.0 environments. To fill out the picture we turn now to a brief discussion of collaboration, participation, and distributed expertise in fanfiction.

Fanfiction, or fanfic (see also Chapter 4), has exploded as a popular literacy with the growth of the internet. In fanfiction 'devotees of a TV show, movie, or (less often) book write stories about its characters' (Plotz 2000: 1; see also Jenkins 1998, 2006b). Fanfic based on video game plotlines and characters is also growing in popularity. Fanfictions chronicle alternative adventures, mishaps or even invented histories or futures for main characters; relocate main characters from a series or movie to a new universe altogether; create 'prequels' for shows or movies; fill in plot holes; or realize relationships between characters that were only hinted at, if that, within the original text.

David Plotz (2000) describes fanfiction as turning writing into a communal art, wherein 'writing and reading become collaborative. We

share the characters and work together to make them interesting and funny and sexy' (ibid.: 1). Other fanfic writers are equally forthcoming about the collaborative and shared nature of their writing practices. Silver Excel Fox describes how she supplied a character for another online friend's narrative:

> She liked my review for one of her stories, and I was kind of talking about one of her characters [in the review], and she was, so, 'I need another character. Do you want to be it?' And I'm like, 'Sure,' and I gave her a description of what I wanted my character to look like, and she took my character and put it into her story.

<div align="right">(interview, 2005, by Knobel and Lankshear)</div>

Elsewhere, collaboration occurs when reviewers provide feedback on texts posted by authors for comment and review. This kind of dynamic exchange most often occurs via online forums and email discussion lists (see Chandler-Olcott and Mahar 2003; Black 2005a, 2008, 2009; Thomas 2007b). Authors and reviewers take the role of reviewing very seriously. Many fanfic writers, for example, make use of forums dedicated to 'beta-reading': public pre-publication forums where authors can obtain feedback on new stories before posting them to or publishing them on more formal fanfic sites (Black 2005a, 2005b). Some moderated or filtered fanfic forums expect authors to have their narratives beta-read before submitting them for consideration for publication. *The Force* (fanfic.theforce.net) suggests that a beta reading should pay attention to:

- 'Grammar and spelling errors. While a few errors are bound to make it through, too many such errors will result in a rejection.
- Plot continuity and technical errors. Your betas should let you know if there are any plot threads left unintentionally unresolved, and note places where there are internal continuity problems (e.g., you had a character leave the room on page four, and she speaks again on page five without re-entering or using a comm-link).
- Character issues. Fanfiction allows much more freedom than professional fiction in terms of character interpretations, but your betas should point it out if your characters suddenly begin to behave very oddly for no appreciable reason.
- Intangible things. Ask your betas to tell you what they got out of your story before you tell him or her what you meant. "I like this!" is a nice thing to hear, but what you need from a beta reader is to hear, "I really liked the way you showed Qui-Gon's early dissent from the Jedi Council, because it resonates with the way he behaves in his early scenes with

Shmi in TPM" (or whatever). If that's what you meant to convey, it tells you that you've succeeded. If it's not what you meant, it can mean two things. You may decide that you really like it, and want to leave it alone or even expand on it. You might also decide that you absolutely don't want to give that impression, and therefore you want to change the things that gave it.'

(Fan Fiction: The Force.net 2010: 1)

Two points are worth noting here. First, these guidelines for beta readings are a typical example of the kinds of resources users can access in affinity spaces. Other similar kinds of resources on which fanfic writers and reviewers can draw include 'fanfiction glossaries, fanfiction writing help sites, members' personal web pages, and official corporate sites that provide information on copyright laws for the various media texts that fans are drawing from, to name just a few' (Black 2007: 117–18). Additional resources include feedback discussion forums, feedback functions automatically appended to posted narratives within fanfic sites that let reviewers comment directly on a new text, and reviews sent to email discussion lists dedicated to fanfiction writing and/or fan art. Such resources typify the 'ethos' of affinity spaces generally. The beta reading guidelines resemble resources available in the games-based affinity spaces discussed by Gee (2004: 84), like 'FAQs that explain various aspects of the game and give players help with the game' and 'strategy guides and walkthroughs for "newbies" [new players]'. Artifacts like *The Force*'s beta reading guidelines can be seen as embodying several defining features of affinity spaces. These include: 'Newbies and masters and everyone else share common space'; 'Both individual and distributed knowledge are encouraged'; 'There are lots of different routes to status'; and 'Leadership is porous and leaders are resources' (ibid.: 85–7).

The second point concerns the character of fanfic peer review at the level of lived experience. This, of course, varies from case to case, but an already recurring theme in the small corpus of literature currently available is of participants approaching peer review in open, non-defensive/non-aggressive, constructive and generously supportive ways. These ways often become communicative and relational in tone and on levels that differ from the circumstances and connotations of peer review within conventional publishing (academic and non-academic) contexts. Moreover, they may spill over into learning opportunities that extend far beyond immediate fanfic purposes.

Rebecca Black (2008) presents a case of the social relations of peer review at their most expansive. An adolescent native Chinese speaker, now living in Canada, regularly begins her fanfics with an 'author's note' (which she

marks as 'A/N') that asks for readers' patience with her English, while at the same time indicating that she is keen to improve her written English fluency. Her following author note begins with a friendly Japanese greeting ('Konichiwa minna-san'), which translates as, 'Hello everybody'. This fanfic author also includes manga-fied Ascii emoticons in her message (e.g., ^_^ instead of the traditional :) to indicate a smile; –;; to indicate nervousness):

> A/N: Konnichiwa minna-san! This is my new story ^_^. Please excuse my grammar and spelling mistakes. Because English is my second language. Also, I'm still trying to improve my writing skills ... so this story might be really sucks... .–;;

Black reports that these kinds of author notes 'provide writers with direct access to the reader and enable authors to specifically state those elements of the story (e.g., form or content) on which they would like readers and reviewers to focus' (ibid.: 125). The author in Black's example indicates tangentially that feedback on spelling and grammar would be appreciated. Reviewers have seemingly heeded these author notes and have written encouraging comments, including comments that the author writes much better stories than many native English speakers, or they have made suggestions for addressing grammar and spelling errors in the text (which, according to Black, this particular fanfic writer always addresses when revisiting and editing her posted narratives). At the same time, reviewer feedback emphasizes that these errors are 'minor and do not interfere with the effectiveness and overall message of the story' (ibid.).

Competing configurations of 'new ethos stuff'

We have reached a point where it is necessary to draw some distinctions around the idea of 'a new ethos'. We began the chapter by talking about an ascending paradigm that reflects a different way of thinking about people, social practices and processes, and social phenomena like expertise and intelligence from how such things were thought about under an earlier paradigm. We have talked briefly about how, during recent decades, economic activity – work – has been re-described, understood, and re-structured along lines in which values of participation, collaboration, distributed systems (of expertise, intelligence, team-orientation) have been emphasized. The 'new' capitalism pursues new ways of identifying workers and giving them new identities, in association with new ways of organizing their activity (roles, relationships, performances), with a view to enhancing the economic viability of enterprises and bureaucracies (Gee et

al. 1996). This is a new angle on an existing game – a new way to create economic value/profit/capital accumulation/efficiency through *leverage*, within a process of coaxing employees to take on new identities as members of a 'community' rather than as individuals who just happen to work in this place, for this boss or this company. The end game remains more or less the same, but is now played under a new kind of 'ethos': by affiliates collaborating with each other in a shared mission.

We have described how this kind of business model and 'ethos' was named for the web: as Web 2.0. A new *architecture* established the web as an interactive platform whereby enterprises could accumulate value by creating conditions and practices – *literacies*, no less – where users could generate value that companies/site proprietors could harness. This is Web 2.0 as *a business model*. At the same time, the architecture supporting this business model represents something of a shift in applied *ethos* from the more one-way, broadcast-oriented model retrospectively named Web 1.0. We worked our way through a staged sequence of selected examples, seeking to shift the focus from web-mediated collaborations and distributions grounded in leveraging user interactivity in the interests of the economic viability of an enterprise toward an emphasis on ways in which the impressive affordances of Web 2.0 as an interactive platform enable users to participate in *affinities*. These are affinities where their participation and collaboration enact relationships to/with others and their shared interests, and contribute collectively to building the affinity and a sense of membership in that affinity.

The examples we have used (among very many others that *could* have been used) bespeak rather different *configurations* of a broad ethos; different configurations of collaboration, participation, shared expertise, and the like. Some might say that it would be better to speak of distinct *ethoses* here, rather than different *configurations* of the same broad ethos. We prefer to think of different configurations, because what we believe is 'new' is bound up with the paradigm shift. The main thing, however, is to draw out what is at stake, and to consider how this might impact on how we choose to view the nature and scope of new literacies. A good place to start is with the following extended statement by Henry Jenkins (2010: 238–9), who says:

I want to hold onto a distinction between participatory cultures, which may or may not be engaged with commercial portals, and web 2.0, which refers specifically to a set of commercial practices that seek to capture and harness the creative energies and collective intelligences of their users. 'Web 2.0' is not a theory of pedagogy; it is a business model. Unlike projects like Wikipedia that have emerged

from nonprofit organizations, the. Open Courseware movement from educational institutions, and the Free Software movement from voluntary and unpaid affiliations, the web 2.0 companies follow a commercial imperative, however much they may also wish to facilitate the needs and interests of their consumer base. The more time we spend interacting with Facebook, YouTube, or LiveJournal, the clearer it becomes that there are real gaps between the interests of management and consumers. Academic theorists (Terranova, 2004; Green & Jenkins, 2009) have offered cogent critiques of what they describe as the 'free labor' provided by those who choose to contribute their time and effort to creating content which can be shared through such sites, while consumers and fans have offered their own blistering responses to shifts in the terms of service which devalue their contributions or claim ownership over the content they produced. Many Web 2.0 sites provide far less scaffolding and mentorship than offered by more grassroots forms of participatory culture. Despite a rhetoric of collaboration and community, they often still conceive of their users as autonomous individuals whose primary relationship is to the company that provides them services and not to each other.

'Proprietary', 'projective' and 'participatory' forms of the new ethos

At one level we might distinguish forms or configurations of collaboration, participation, and distribution that are, respectively, more or less 'proprietary', 'projective', and 'participatory' in nature.

By *'proprietary'* we refer to cases where some property ownership is involved that accrues value for some party/parties but not for others. This would be the case with internet searching that consolidates Google's predominance and attracts it disproportionately massive advertising revenues. It might also be the case with writing reviews and assigning ratings with Amazon, where Amazon's bibliographic database, ratings and review systems, recommendations, etc., draw people to its site by default; or with participating in Facebook, contributing to YouTube, and so on. Of course, there is a trade-off, a certain reciprocity involved here. We get the benefits of having a powerful search tool available/they get our value addition; we get to express our opinion of products, voice our preferences, develop proficiency as reviewers, build a review profile and portfolio, build up an online identity/they get our value additions. There *is* a two-way flow of benefits here, albeit different in kind and the reciprocity might be 'unfair', even 'exploitative', in many cases. At the very least, users should become

aware of the extent to which, ways in which, and times at which they are implicated in proprietary collaborations and participations, and do their moral or evaluative 'mathematics'.

Projective configurations of the new ethos are found where people participating in affinity spaces are doing so under the primary motivation of creating some kind of artifact to meet a personal (or joint) purpose, rather than from the motivation of further enhancing an affinity, community of practice, fandom, or what Jenkins calls 'collaborative enterprises within networked publics' (2010: 233). A typical example might be of someone spending time in music video spaces because they want to 'capture' and 'portray' their wedding anniversary as a music video. They may spend (considerable) time in online spaces seeking advice, looking at other people's work, rating or favouriting some of it, responding to and feeding back on the results of assistance provided and, eventually, posting their artifacts online – but all the while from the standpoint of wanting to further their quest to produce a worthy artifact, or to continue over an extended period of time to produce regular and increasingly sophisticated or proficient 'renditions' of personally significant events as music videos. The patterns of contributing and interacting within an online space from this kind of standpoint are likely to differ considerably from those, for example, of bona fide *fans* of particular genres of music videos.

Participatory configurations of the new ethos are intimated in the difference between someone who wants to create, say, a podcast for some kind of personal purpose or as a personal expression, and those whose podcasting activities arise from motivations like 'an urge to create a shared space where, for example, fans can discuss their mutual interests in Severus Snape, or where church members can hold prayer circles, or where comic book buffs can interview writers and artists' (Jenkins 2010: 234). In other words, participation, collaboration, and distributed systems of expertise, knowledge/wisdom/intelligence and cultural production assume *participatory* forms within communities and networks of shared interests or affinities that have the kinds of characteristics associated with current conceptions of 'participation in affinity spaces' (Gee 2004), 'participatory cultures' (Jenkins et al. 2006), 'communities of practice' (Lave and Wenger 1991), and so on. These terms are widely used to capture the idea of networks and communities of shared interests where people associate, affiliate, and interact in kinds of 'collective enterprise' (Jenkins 2010: 233) in order to pursue and go as deeply as they wish into their 'affinities' or what they are especially interested in. Such activity involves collectively building, resourcing, and maintaining interactive spaces, whether face to face, virtual, or mixes of both, where participants can contribute to and

draw upon myriad resources and means for building and enacting identities based on interests, in collaboration with others. Participants play diverse roles and learn from each other 'in the process of *working together* to achieve shared goals' (ibid.; compare Gee's account of affinity spaces on p. 68 above). From a new media literacies perspective, Jenkins and colleagues (2006: 3) define a participatory culture in terms of environments and social practices where there are

relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another.

(Jenkins et al. 2006: 3)

These defining characteristics have important implications for styles, modes, types, and degrees of collaboration, expertise sharing, and participation, which are touched on in our sketch of fanfiction above. The range here will typically be much greater and the priorities very different from those involved in engagements of a more proprietary and projective nature. This is because members of participatory cultures are involved in building and resourcing entire 'systems' and networks for developing and enacting identities (and ways of creative doing and being and making) within the very processes of pursuing and enacting these identities. They are collectively building, and developing the conditions and terrain for *their* interest-based engagements, as an entire enterprise, as distinct from participating in 'an enterprise of others' (proprietary), or drawing on established enterprises to engage in individual or personal goal-directed pursuits with no intrinsic or necessary investment in furthering the community, networks, or affinity space *per se*.

Lawrence Eng provides an illuminating glimpse of the spirit of participatory culture in *The Sasami Appreciation Society* (Capcorphq.com/ SAS.html#Sasami). In the mid-1990s, Eng, studying at Cornell University in the USA and a member of the university's Japanese Animation Society, became captivated by the 'cutest, blue-haired anime girl I had ever seen' (webpage no longer available). This was Sasami from the *Tenchi Muyo* anime. 'I eagerly waited for each instalment of TM and was never disappointed. Through all of this my devotion to Sasami only increased,' says Eng. He found a kindred spirit online and they began to build *The Sasami Appreciation Society*, with the mission 'to spread Sasami fandom in all ways possible, on the Net and otherwise'. Why? It's simple;

'it's our devotion to Sasami ... We're dedicated to bringing her the fandom that she deserves.'

In her account of literacy practices within the community of anime and manga fans, Mizuko Ito (2005a) identifies this spirit as the very heart of *otaku* culture. She speaks of anime *otaku* as 'media connoisseurs' and 'prosumer activists' who search for anime and manga content, and 'organize their social lives around viewing, interpreting, and remixing these media works' (ibid.: n.p). More than this, they invest enormous time and energy to resourcing spaces for others as well as themselves.

> [They] translate and subtitle all major anime works, they create web sites with hundreds and thousands of members, stay in touch 24/7 on hundreds of IRC channels, and create fan fiction, fan art, and anime music videos that rework the original works into sometimes brilliantly creative and often subversive alternative frames of reference ... To support their media obsessions otaku acquire challenging language skills and media production crafts of scripting, editing, animating, drawing, and writing. And they mobilize socially to create their own communities of interest and working groups to engage in collaborative media production and distribution. Otaku use visual media as their source material for crafting their own identities, and as the coin of the realm for their social networks. Engaging with and reinterpreting professionally produced media is one stepping stone towards critical media analysis and alternative media production.
>
> (ibid.)

Before drawing the components of this chapter together into an account of new literacies, it is important to make three brief points with respect to participation and collaboration in relation to 'new ethos stuff' and the interactive web.

Reflection and discussion

- To what extent are the distinctions between 'proprietary', 'projective', and 'participatory' configurations of 'new ethos stuff' helpful for considering the issues Jenkins raises about Web 2.0 in relation to education?

- Discuss the significance and implications for education of Jenkins' claim that Web 2.0 is a business model and not a theory of pedagogy.

First, what we are calling a new ethos and, particularly, *'participatory'* cultural creative forms of new ethos, did not arise with the internet, let alone the Web 2.0 platform. (Jenkins traces participatory media cultures from the nineteenth century.) The key point here is that the possibilities and nature of participatory cultures are contingently related to many factors – including *technological* factors – conducive to interacting, sharing, building networks and relationships, and so on. The brute fact is that the interactive web has enlarged the possibilities for participatory cultural engagement on a mind-blowing and escalating scale. Moreover, various kinds of new literacies emerge and evolve and are appropriated in the course of building, resourcing, and engaging in such participatory culture, as we will see at length in Part 2.

Second, while we have distinguished between proprietary, projective, and participatory configurations of 'new ethos stuff', we should note that these are not 'pure', self-contained, or mutually exclusive modes. They overlap considerably. During stretches of engagement in affinities involving new literacies, participants will almost inevitably move across moments of each – just as one moves across instrumental/intrinsic, commercial/ subsistence, exchange value/use value modes within activities like gardening and shopping with a view to putting food on the table and creating an aesthetically satisfying home environment.

Third, the 'nuts and bolts' of participation and collaboration within the kinds of social practices under discussion here are, so to speak, of many 'shapes and sizes'. For example, the 'participation' and 'collaboration' involved with Google when we use Google's various search tools will for the most part be *tacit*, if not unwitting. We don't *search* with a view to collaborating and are rarely conscious of doing so. By contrast, when someone invests the kind of effort described by Eng and Ito, and in Black's (2008) accounts of reader reviews in fanfiction, collaboration is absolutely active and witting. Collaborations may be more or less targeted – e.g., responding to particular requests for help, information, or advice – or more or less 'diffuse', 'generic', or anonymous – e.g., just putting it out there in case it will meet someone's need some time. Instances of participation might be as 'small' as giving a rating or 'retweeting'. Someone's prevalent mode of participation might (simply) be rating or favouriting videos on a site, or commenting on blog posts. Participation might be 'peripheral' for long periods until one is knowledgeable or confident enough to take on more 'elaborate' forms. The point is that if terms like 'participation', 'collaboration', 'distributed expertise', and other aspects of the new ethos are to get beyond the level of slogans and cliché, and to serve as descriptive, theoretical, and analytic categories in our understanding of new literacies,

we need to make these kinds of distinctions and recognize varying degrees, kinds, and gradations.

'New' literacies: paradigm and peripheral cases

There can be no 'pure' conceptual account of 'new' literacies, any more than there can be of 'literacy' or 'literacies'. The stakes involved around competing views mean these concepts are 'essentially contested' (Gallie 1956). At best, one can make a case for a preferred view. Our preferred view involves distinguishing between paradigm (strongest possible) and more peripheral less strong or 'complete' cases of new literacies.

We argue that *paradigm* cases of new literacies involve *both* new technical stuff and new ethos stuff. Under current and foreseeable conditions, failure to address the 'participation', 'transparency', and 'ethical' gaps framed by Jenkins and colleagues (Jenkins et al. 2006) will constitute a grave dereliction of commitment to democratic values. Even beginning to address these gaps presupposes recognizing the importance of keeping 'new ethos stuff' and 'new technical stuff' together in the frame. Moreover, we believe that the closer the 'new ethos' dimension approximates to the forms of engagement, collaboration, sharing, and distributed expertise and 'authorship' that define 'participatory cultures' (ibid.), the more we should regard a literacy practice as 'new'. This involves a values stance based on an ideal of social learning that is actively undermined by existing educational arrangements and the wider social structures and arrangements they support (e.g., credentialling, differential allocation of scarce rewards, consumer commodity production, ownership and property relations, etc.). Paradigm cases of new literacies confront established social structures and relationships in ways we consider progressive, or 'better'. They are more inclusive, more egalitarian, more responsive to human needs, interests and satisfactions, and they model the ideal of people working together for collective good and benefit, rather than pitting individuals against one another in the cause of maintaining social arrangements that divide people radically along lines of success, status, wealth, and privilege. To make this argument well would require a book in itself. We hope the discussion in the remaining chapters indicates the kind of case we would ideally make.

At the same time, however, it is necessary to acknowledge the extent to which the kind of learning ideal portended by our second paradigm and championed – with variations – by diverse sociocultural and new media theorists *can* be pursued independently of 'new technical stuff' by putting the primary focus on the new ethos – even 'though the ideal is to do

both' (Jenkins 2010: 241). New technical stuff can be, and typically is, introduced into classrooms without challenging the established culture of classroom education one iota (Cuban 2003; Lankshear and Knobel 2006: Ch 2; Jenkins 2010). It is impossible, however, to engage with learning from the standpoint of participatory culture without seeing how its learning model challenges 'the cultural context that surrounds contemporary formal education' (Jenkins 2010: 241).

Fanfiction face to face: a new literacy without new technology

In *Textual Poachers: Television Fans and Participatory Culture*, Jenkins (1992) provides rich examples from fieldwork undertaken prior to the time of mass internet access of fan-oriented literacy practices that exemplify new literacies as *ethos*. One example (ibid.: 153–3; see also Jenkins 2010) involved four women aficionados of female-centred science fiction based on TV shows, who met regularly to write fanfiction. They spread themselves about the room, doing their writing, reviewing source material, sharing resources, reading one another's work and commenting on it, seeking and offering advice, and so on. Jenkins observes as follows:

Mary has introduced a southern character and consults Georgia-born Signe for advice about her background. Kate reviews her notes on Riptide, having spent the week rewatching favorite scenes so she can create ... Mary scrutinizes her collection of 'telepics' (photographs shot from the television image), trying to find the right words to capture the suggestion of a smile that flits across his face ... Kate passes around a letter she has received commenting on her recently published fanzine ... Each of the group members offers supportive comments on a scene Linda has just finished, all independently expressing glee over a particularly telling line ... Kate edits and publishes her own zines she prints on a photocopy machine she keeps in a spare bedroom and the group helps to assemble them for distribution. Linda and Kate are also fan artists who exhibit and sell their work at conventions; Mary is venturing into fan video making and gives other fans tips on how to shoot better telepics. Almost as striking is how writing becomes a social activity for these fans, functioning simultaneously as a form of personal expression and as a source of collective identity (part of what it means to be a fan). Each of them has something potentially interesting to contribute; the group encourages them to develop their talents fully, taking pride in their accomplishments, be they long-time fan writers and editors like Kate or relative novices like Signe.

Commenting on his fieldnotes 20 years later, Jenkins is struck by how fully they reflect strengths of a participatory cultural context as a site for (informal) learning. We are further struck by how fully they encapsulate an ideal of *social* learning, and a 'new' literacy practice from the standpoint of 'new ethos stuff' – particularly in relation to formal learning contexts.

> Sometimes the women are working on individual, self-defined projects and sometimes they are working together on mutual projects but always they are drawing moral support from their membership in an interest-driven network. Each plays multiple roles: sometimes the author, sometimes the reader, sometimes the teacher, sometimes the student, sometimes the editor, sometimes the researcher, sometimes the illustrator. They move fluidly from role to role as needed, interrupting their own creative activity to lend skills and knowledge to someone else.
>
> (Jenkins 2010: 236)

The educationally significant differences between this as a case of a 'new' literacy and the paradigm cases of new literacies discussed in Part 2 of this book may be less than is often assumed, since these mainly involve details of technology/tool use, knowledge and skills. When they have authentic reasons for using them, everyday people like the women in this example are renowned for picking up, running with, re-purposing, and re-shaping new technologies with an ease analogous to the proverbial duck taking to water, without any need for formal instruction in technology use. Without a change of 'ethos' within education, the benefits from addressing the 'new technical stuff' will remain seriously constrained.

Photosharing on Flickr and The Secret Life of Toys: a paradigm case of new literacy

This section describes the new literacy practice of photosharing and curating (cf. Merchant 2010; Potter 2010) within the context of sharing an interest in or passion for toys.

Flickr.com, now part of the Yahoo! suite of online services, is a user-generated content website established for archiving, curating, and sharing digital photographs and 90-second videos. Participating in Flickr photosharing is straightforward. Anyone can browse photos designated 'public' regardless of whether they have a Flickr account. Only account holders, however, can post and comment on photos. Signing up simply involves clicking on the 'create your account' button on the Flickr homepage. There are two types of account. One is free, allowing members to post up to

200 images. The other requires a yearly subscription, providing unlimited account space and other added features. Here we focus on the free account.

Besides tagging, as mentioned earlier, key technical affordances and skills include being able to collate photos into sets and collections, based on organizing concepts of choice (e.g., 'Trip to Argentina', 'Blue Things'). It also includes being able to add 'contacts' or other Flickr members to an easily accessed list, and to establish or join 'groups' dedicated to particular interests or affinities (e.g., 'Black and White' – currently the largest group on Flickr; 'Flowers', 'Pavement', 'Empty Chairs'). Groups are richly collaborative spaces within Flickr. Including the name of the group as a key tag for any relevant photo enhances the strength and range of images included in that group. Groups may engage in meet-ups, where members get together in real life to socialize or to celebrate their shared interests by taking photographs together (Davies and Merchant 2009; Merchant 2010).

Members use Flickr in different ways and to different degrees. Some just use the space for storage, or join groups and comment on others' photos without posting photos themselves. At the other extreme, members actively invite others to view their photos, join groups based on a theme or interest, establish groups and recruit others to them, comment on their own and other people's photographs, participate in Flickr forums (ask/respond to questions, suggest features, report a bug) and activities, participate in group-based discussions, and build special relationships that can spill over into offsite spaces (including physical space) (Davies 2006; Davies and Merchant 2009).

While images uploaded to Flickr can include scanned hand-done drawings or paintings, Paintshop-generated cartoons, scanned collages, and short video clips, the digital photograph is by far the prevalent image-type. Besides adding tags, posting photos involves making various kinds of written contribution: notably, keying a title and a short description for each photo in provided textboxes. A function in a menu bar above each photo enables members to write notes that will appear directly on the image when a viewer scrolls the cursor over each 'note' icon. Often information about what kind of camera used to take a given image is automatically displayed alongside the image, or the account holder can add in particular technical details regarding the camera, the location and set-up of the shot. The display template also provides a space for comments, similar to a weblog. Comments cover a wide spectrum: from 'OMG I love it!', to comments on the 'processing' or techniques used (e.g., 'HDR is such a cliché – you've essentially ruined a nice shot'), through to high-end specialist advice regarding image quality, framing, depth of field, f-stop setting suggestions,

and so on. Members will even invite 'constructive comments' to be added to an image.

Sharing skills and knowledge to do with taking and sharing good photographs is also supported within different groups' discussion forums. For example, a recent discussion on the 'Australia in Black and White' group's forum began with a member posing a question about which medium (film, digital) or process (e.g., manual or digital colour conversion) members of the group preferred to use. Responses were many and varied – from switching camera options to black and white on their iPhone through to carrying a number of different film and digital cameras around to match to shooting conditions. Sharing feedback (even unkind feedback) and expertise in such ways means that Flickr itself is not simply an archive site, but can be used as a resource to improve one's own photographic skills and as a space where interesting conversations about photography can take place, ideas for one's own photography can be gathered, and where people can simply enjoy an image on whatever terms they choose. There is no hierarchical ranking of photos from best to worst, and no theme or topic is banned (beyond images banned legally in the wider world). Users are expected to self-moderate their photos, by setting the 'viewing level' for images (i.e., safe, moderate, restricted).

The Flickr display template and its inbuilt prompts and functions serve several enabling purposes. It helps with managing viewer access to images, with joining groups, with bookmarking 'favourite' images posted by other members, with designating who can access each photo (e.g., everyone, or only those users marked as 'friends') and what copyrights images are assigned with regard to others using the photo in different venues. It also helps with inviting other people to join Flickr and to become a 'contact' of the user.

There are many other technical aspects to posting photos within a Flickr account beyond our scope here (the Flickr tag cloud, procedures for starting a new Flickr group, etc.). We turn now to a typical example of participating in a well-subscribed affinity on Flicker.com involving toy appreciation and 'bringing toys to life' – an affinity which, of course, long pre-dates and extends far beyond Flickr.

'The Secret Life of Toys' was established early in Flickr's life, during 2004, and at the time of writing has around 15,000 members and almost 200,000 images in its richly diverse photo pool. It has a wide charter: 'This group is about collecting photographic [and video] evidence that toys get up to things when people are not around. Well, not just that – It is also simply a space to collect good images of toys for everyone to enjoy' (Flickr 2010: n.p.). The photo pool reflects many different angles on toys and interests in

toys. These include portraiture shots of Blythe dolls (large-eyed, big-headed, puny-bodied dolls that had a less-than-12-month production run in 1972 but gained a large fan base in the 2000s), Lego minifigs, Transformer toys, manga dolls, vinyl figures, and various other dolls and action figures in a range of everyday scenes (e.g., cooking dinner, working as lifesavers, working out), and multi-figure scenarios depicting epic battles or strange, slightly off-kilter scenarios, along with photos of new toy acquisitions, among many others.

Photos added to this group communicate meanings on different levels. Some are 'brag' photos to do with someone's latest addition to their toy collection. This could be a vintage robot, or, more typically, a vinyl figure that itself is part of a collectible series and part of the larger vinyl figures affinity space that is instantiated in different ways, including comic conventions, in blogs, in paper magazines, in comic shops, in collectors' online forums, on eBay, and so on. In and of themselves they're simply nice photos. They also, however, elicit wider meanings, like nostalgic memories of one's own childhood toys, or envy at someone's collection, or happiness over a new toy.

Some photos shared within the group tap into more specialized fan affinities, such as Stefan's Stormtrooper action figure series that ran from 3 April 2009 to 4 April 2010 (flickr.com/photos/st3f4n/sets/72157616350171741/) as a contribution to Flickr's popular '365 photos' project. Over 365 days Stefan posted an image each day to 'The Secret Life of Toys' and other toy affinity groups on Flickr. His project involved photographing Star Wars Stormtrooper action figures engaged in a range of real-world tasks, but in a human-scaled world. Typical images include two Stormtroopers fishing in a toilet, a Stormtrooper berating a real cat for sleeping, a Stormtrooper loading life-sized game cartridges into a Nintendo game machine, Stormtroopers break dancing, and Stormtroopers grappling with a giant Totoro doll, among many others. Each photo portrays the Stormtroopers as very much alive and engaged in some activity. At this level, suspending belief that toys are inanimate within the photos is a valued meaning within the 'Secret Life of Toys' group. At another level, fans of the Star Wars universe derive additional pleasure from these images by understanding Stormtroopers as enforcers on the wrong side of 'good' and how this plays out humorously in the photos. Additional popular culture references – break dancing, video game playing, the 'My Neighbour Totoro' anime movie – confer wider, intertextual meanings on these images for those who recognize them. The multilingual comments posted to each image include congratulatory notes, as well as additional information about how commentators are interpreting the image and what it means to them. Such negotiated meanings sometimes

include responses from Stefan himself, turning the comment posts into a kind of friendly conversation. Stefan offers encouragement to others planning to undertake a '365 photos' project and advice on how to set up different shots.

Stefan's Stormtrooper series has been showcased on various blogs and on Twitter (follow: stormtrooper365). The 'Secret Life of Toys' group also has seemingly spawned a number of copycat sites, including a similar photo group hosted on Tumblr blog servers (Hellotokyo.tumblr.com) and a professional photographer's 'Secret Life of Toys' shopfront website where he sells prints of his toy photos (Thesecretlifeoftoys.com).

Finally, participating in photosharing and curating within groups like 'The Secret Life of Toys' can be seen as being involved in meaning-making at the level of 'carrying' the social order. It is to be recognizable as a participant in a 'form of life' which, along with countless other forms of life, organizes and constitutes human life and living in ways that can be understood – made sense of – engaged in, and responded to. In other words, participating in 'The Secret Life of Toys' is one of countless forms of social practice within which, and through which, *all* meaning-making – including that mediated by encoded texts – is accomplished.

Reflection and discussion

- Does our attempt to distinguish paradigm and more peripheral cases of new literacies work for you? If so, in what ways/respects? If not, where do you see problems?

- In Chapters 2 and 3 we have aimed to distinguish points at which different 'levels' and kinds of *meaning* are involved when we participate in (new) literacy practices. What do you understand by these different levels and kinds of meaning, and to what extent do you find them useful for thinking about literacies and literacy education?

In Part 2 we present detailed discussions of some paradigm cases of currently popular new literacies.