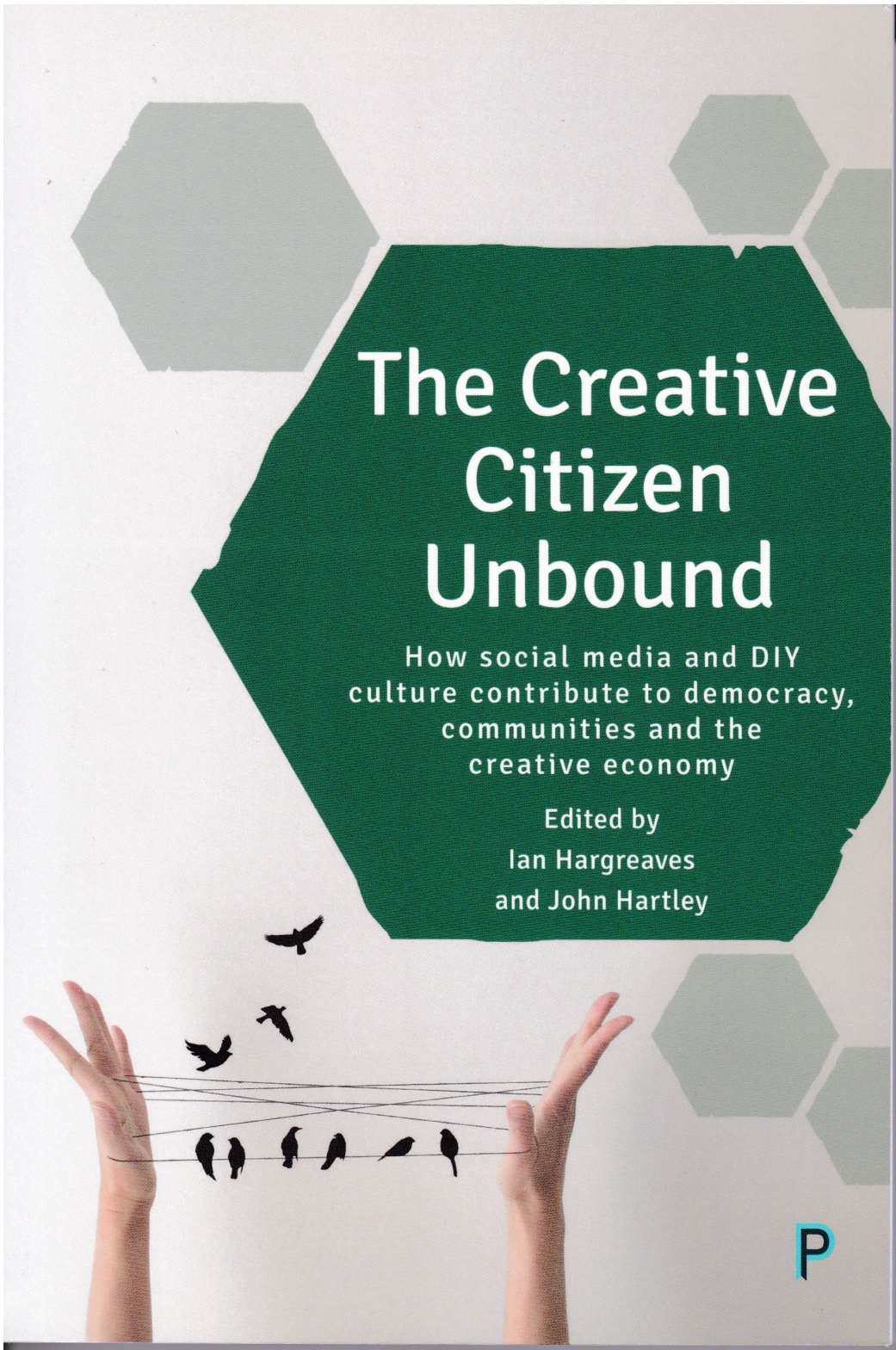

Chapter 10: Turner, J., Lockton, D., Dovey, J. (2016) 'Technology and the creative citizen'. In: Hargreaves, I. and Hartley, J. (eds), The Creative Citizen Unbound: How social media and DIY culture contribute to democracy, communities and the creative economy. Bristol: Policy Press, pp. 231-254

participation may or may not be 'scalable' in response to public policy strategies, but that is not their purpose. The activities themselves are self-made and self-actualised, addressing the wider world directly rather than through external mediation. Rather than disaggregating agency into the hands of another, for example through participating in media literacy programmes, South Blessed declares its agency and uploads its network productions directly to the world. Fuelled by the energy of a young community, this 'glocal' creative citizenship is unapologetically optimistic.

In mediating place the local, hyperlocal, urban, national and global are strongly connected. We have demonstrated the ways in which the material affordances of digital media and social preconditions of civic creativity are connected with practices of cultural expression and political participation. Our analyses offer a fertile ground to rethink how these affordances have given rise to acts of creative citizenship, not simply as a digital era phenomenon, but as an experience that transcends the digital and physical understandings of place, and its local, national and global boundaries.

Notes

1. Spoken at the Community Media Association Annual General Meeting – 23 February 2008, Sheffield, UK.
2. wardscorner.wikispaces.com/ >> Media Section. And wardscornercommunityplan.wordpress.com/
3. cc.stickyworld.com/room/presentation?roomid=11#page/about
4. Chris Atton describes a similar project in a New York underground paper of the 1960s: "*Other Scenes* once offered an entirely blank set of pages for readers as a do-it-yourself publishing project" (Atton, 2002: 24).
5. See tyburnmail.com/2014/03/06/jail-for-five-castle-vale-men-after-vicious-mailbox-brawl/

TEN

Technology and the creative citizen

Jerome Turner, Dan Lockton and Jon Dovey

The starting point for our Creative Citizen research project was a question asking whether and to what extent digital communications technologies afford new civic potential. We also invited ourselves to consider how this potential might be enhanced by digital media, thereby making an assumption that agency and significance might properly be ascribed to technology in its relation to creative citizenship.

As we have seen in the preceding chapters and their detailed accounts of creative citizenship in action, this assumption demands critical reflection. Technology itself is rarely addressed head on within communities of the kind we have worked with. The truly indispensable drivers of creative citizenship are motivated people who have built a shared commitment, usually through face-to-face relationships in specific real world places. Digital technologies are today a commonplace and important tool for such groups, in some cases even an operational necessity. How are we to understand the role of technology in these processes?

The definition, meaning and agency of technology has long been a key question in media and cultural studies, as we try to make sense of the 'changes in scale and pace of human affairs' (McLuhan, 1964) that are a characteristic of living in a permanent upgrade culture, where the impacts of technological innovation often seem to be accelerating. Raymond Williams (1974), in his analysis of television as a 'cultural form', argued that the technologies of photography, telegraphy, and radio were components in the invention of broadcast television, but that what drove technological invention were accelerated social processes, notably mobility and growth 'in a society characterised at its most general levels by a mobility and extension of the scale of organisations: forms of growth which brought with them immediate and longer-term problems of operative communications' (Williams, 1974: 18–19). In this reading, technologies of communication develop in relation to the communicative and organisational conditions of society. So for Williams

the accelerated development of industrial-scale printing technologies in the 19th century was associated with the communicative needs of a newly urbanised population seeking democratic representation, rather than an inevitable result of coal, iron and steam driven technologies (1974: 21).

For Walter Benjamin (1936) and Marshall McLuhan (1964), technologies change the nature of our experience, whilst for Marx 'nature makes no machines' (1993: 693). Latour (for example, 2005) argues that human and nonhuman actors (things and machines) are potentially of equal significance in determining what happens when they combine in complex assemblage. Here cause and effect linearity is replaced by network and complexity, making the agency of technology difficult to read through the lens of methodological individualism or behavourism. This approach to understanding technology has been extended in the work of media ecologists, who identify digitally connected communication systems akin to biological eco systems:

> Ecologists focus more on dynamic systems in which any one part is always multiply connected, acting by virtue of those connections, and always variable, such that it can be regarded as a pattern rather than simply an object. (Fuller, 2005: 4)

This systems approach has the benefit of helping us to understand the ways in which people, platforms, networks and actions connect. These patterns of technology networks provide context for the performance of creative citizenship.

However, what none of the approaches above offer quite as usefully as Williams is an analysis of motivation for the extravagant and unprecedented social and cultural effort involved in building the technological and cultural infrastructure of the internet. The development over more than a quarter of a century of the web and its associated applications, platforms and new economic models has been primarily driven by human desire to build technologies that enable people to communicate, share and express themselves in new and more direct ways. Tim Berners Lee is credited with 'inventing' the World Wide Web,[1] but what he actually did was to build a browser that made it easier for scientists to share information through already existing components of military/scientific information technologies. This breakthrough made it possible for human communicative capacities to be unleashed. Scholars of this early web observed an extraordinary investment of time and effort into *forming communities*

online, essentially creating citizens or 'netizens' (as they are still known in China). The work of the journal *Computer Mediated Communication* and that of scholars like Steve Jones (1995; 1998) and Nancy Baym (1998) has demonstrated that the online users of the 1990s worked hard to participate in this new means of communication.

A good deal of research in this period was also devoted to asking the question, 'Can online users form communities?' For early computer visionaries, 'The Well', an online bulletin board network formed round San Francisco in the 1980s, became a prototypical online community:

> There's always another mind out there. It's like having a corner bar complete with old buddies and delightful newcomers and new tools waiting to take home and fresh graffiti and letters, except instead of putting on my coat, shutting down the computer and walking down to the corner, I just invoke my telecom programme and there they are. It's a place. (Rheingold, 1995: 62)

The value of such communities was promptly contested. John Perry Barlow, an early cyber-evangelist, famously argued that these burgeoning online communities lacked the diversity of 'real' communities, which had together faced material challenges (Barlow, 1995). This tension between the relative strengths of online and offline affiliations characterised the best of this early research into digitally mediated communities. Nancy Baym, for instance, concluded her study of online communities of TV fans:

> The research I have reviewed and the model I have proposed suggest that on-line groups are often woven into the fabric of off-line life rather than set in opposition to it. The evidence includes the pervasiveness of off-line contexts in on-line interaction and the movement of on-line relationships off-line. (1998: 63)

Nearly ten years later the first wave of research into social networking sites (SNS) observed their fluid connectivity between individuals and communities:

> The rise of SNSs indicates a shift in the organization of online communities. While websites dedicated to communities of interest still exist and prosper, SNS are primarily organized around people, not interests. Early

> public online communities such as Usenet and public discussion forums were structured by topics or according to topical hierarchies, but social network sites are structured as personal (or 'egocentric') networks, with the individual at the center of their own community. (boyd & Ellison, 2007)

Moreover these public and private selves were intimately interwoven between online and offline communications and locations. In an early study of students' use of their own homepages in social media Kennedy (2006) concluded that:

> Online identities are often continuous with offline selves, not reconfigured versions of subjectivities in real life; for this reason it is necessary to go beyond Internet identities, to look at offline contexts of online selves, in order to comprehend virtual life fully.

This brief review illustrates that from the internet's earliest days, users have been creating new forms of community, association and affiliation, with a range of interwoven public and private benefits. Just as in Williams' analysis that the development of the 19th century press was driven by citizens' need for information, such that the extension of the franchise, of literacy and of the scale of the press and publishing industries went hand in hand across the long century (from the 1790s to the end of World War I), so the growth of the internet in the first 20 years after Berners Lee launched Mosaic has been driven by group formation, socialising, chatting, sharing, making (co-creating) and building platforms that enable users to connect with one another. Text messaging (as SMS) was invented to allow telephone engineers to communicate without using voice lines; its explosion as a super-convenient messaging system was unforeseen by Ericsson's engineers, but soon understood by teenagers. The modern internet was designed to allow scientists to share data but it was the passion of ordinary people to communicate that has shaped the meaning and value of Web 2.0 (and its successor forms) as we blog, Facebook, Tweet and Instagram our everyday lives.

Jenkins et al (2006) argue that this 'participatory culture' is characterised by:

- 'affiliation', elective group formation in online community around enthusiasms, issues or common cultures;

- 'expression', music, video, and design tools in the hands of far more users than ever before, used for every kind of human mode of communication;
- 'collaborative problem-solving' mobilising collective intelligence, crowdfunding, online petition making, alternate reality gaming, wiki-based shared knowledge practices;
- 'circulations' playing an active role in directing media dynamics through the new flows of viral media driven by Twitter, Facebook and YouTube.

This enthusiasm for the uses of social media technologies was also mirrored in a wave of technophiliac commentary appearing in the post Web 2.0 era. It was argued that the new affordances of digital media and social networking were creating new modes of capitalism (Tapscott and Williams, 2006), transformative levels of 'cognitive surplus' (Shirky, 2010) and new modes of collaborative innovation (Leadbeater, 2008). In 2010, political activists saw a wave of political unrest in North Africa and the Middle East as an 'Arab Spring' promising a socially mediated democratic summer – an over-optimistic assessment, as things turned out, in the short term at least.

Towards an economy of contribution

Since the 'Springs', digital passions have cooled, or at least been more heavily qualified. In the post WikiLeaks, post Snowden era, digital technologies of communication and media are understood as part of a darker landscape, driven, on one hand, by highly individuated consumer marketing and, on the other, by state and corporate surveillance associated with the burgeoning geopolitical insecurities of globalisation. Silicon Valley giants, such as Apple, Amazon, Google and Facebook, which helped build the global digital economy and its libertarian ethos, began to attract criticism for aspects of their corporate behaviour. The arguments of critical theorists of technology such as Terranova (2003) or Galloway (2001) appeared prescient. They argued that social media always had the potential to intensify exploitation and control. For the French philosopher of technology Bernard Stiegler (2010), the undoubted radical potential of collaborative and open source technologies is also a 'pharmakon', in so far as it can poison as well as cure, by conferring new kinds of power to those who exploit the data 'set into motion by actions and requests that network actors mostly produce without knowing it' (2010: 129). Nevertheless Stiegler is one of those critics of technology who are also committed to establishing

the political, social and economic conditions that could obtain in order to produce what he calls the 'economy of contribution' in which the new collaborative potentials of our means of communication produce new kinds of value that can be held in common in particular places, including cities and regions.

Our own work in the Creative Citizen project indicates how this economy of contribution might start to form amid the grassroots dynamics at play when a range of social and technological actors come together in an attempt to produce value for people as citizens rather than people defined exclusively as subjects, consumers or mere individuals. Our analysis of these procedures and possibilities is informed by the wide range of domain disciplines involved in the project, including especially the thinking behind 'user-led' design, but also referring to journalism, economic geography, media and cultural studies. We turn to some insights from these knowledge domains before drawing lessons from specific case studies.

Affordance and the citizen as user

In everyday practice, debates and tensions about the role and scope of digital technologies may be addressed through the concept of affordance, which starts from the premise that as technologies develop they have many different potentials. These possibilities and their limits are as much a feature of the natural sciences – physics and materials – as they are of the human structures, agency and aspiration analysed in social science. Drawing on James Gibson's work on ecological psychology (1986), Donald Norman describes the perceived affordances required in an object in order for a person successfully to interact with it and accomplish a task (Norman, 1988). Building on this, William W. Gaver (1991) explored different ways in which people might perceive and understand the affordances of technologies around them. This work suggests that when considering technology's potential in the realm of civic engagement, we should focus upon social as well as technical affordance.

Social affordance requires attention to the circumstances of users, for example in their creative contexts as citizens, including their historical, social, cultural and class backgrounds, along with their technological skills. The Keeping in Touch project (Dovey et al, 2011) looked at '100 community based communication initiatives which appeared to have a goal of 'strengthening communities' and provides valuable findings as to the use of appropriate technology taking into account 'differences in age, gender, interest, literacy and affluence'.

This report also argues that the impulse toward relentless innovation needs to be recognised as a problem in some circumstances. Resistance to innovation is illustrated when well-established social media platforms, such as Facebook, continue to be widely used, for example in community journalism and community history, in preference to abundantly available and novel apps. The quest for innovation is understandable and its economic value well established, but too much novelty can make products and services confusing, unwieldy or even impossible for some users to operate. A design that builds on existing conventions and 'media ideologies' (Gershon, 2011) might be easier for a group to grasp. The *Keeping in Touch* report suggests that 'communication technologies [need] to connect into existing means of communication and across different networks. Thus, the simple and widely used technology of text messaging should not be overlooked even though more elaborate apps abound'.

Technology with high civic potential must also be affordable among the wider population of users. For the most part, software and social media services are free, on the basis that they are financed by advertising revenue, but hardware, and in the case of mobile phones, data contracts, can be expensive. Shakantula Banaji's study of young people and civic engagement (Banaji and Buckingham, 2013) finds that it is the financially disadvantaged who would welcome the opportunity to become involved in online civic participation but are frequently excluded by cost.

Technologies should also be time affordable. Consider video making, with the end result a YouTube video. Creating a short, good quality (professional standard) one-minute video can easily take an entire day, especially when we factor in digital transfer of footage and editing. With the advent of mobile phone cameras, such a video can now be shot, edited and distributed to YouTube entirely using a mobile phone. The erstwhile professional standards of camera work and lighting might have slipped in the process, but it could be argued that expectations and perceptions of 'quality' shift anyway when ad hoc technologies are used. David Gauntlett recognises that 'the online community are forgiving about formal quality issues', where quality might be measured in terms of content or immediacy rather than production polish. Overproduction, he argues, can even 'deaden' the human connection, because it is seen as unattainable or alienating (Gauntlett, 2013: 84–7). Implicit standards of 'quality' may also determine accessibility in terms of both time and creative capital.

Accessibility is a familiar challenge. This extends from the provision of basic infrastructure to the very challenging task of ensuring that

publicly funded schools teach digital communications technologies well at primary and secondary level. For designers considering the needs of disabled users (Ellis and Kent, 2010; Ellis, 2015), for example, with impairments in motor skills, sight or hearing, accessibility is part of the design brief. As a matter of routine, designers must take into account diverse cognitive, numerical, language and social skills. Nor can accessibility be ignored when designing for the more usually abled – one treatment of colour or interactive behaviour in an animation will be judged as differently usable by individual members of any group. Taking into account differing user tastes and experience, there will usually be a 'better' way of approaching a design. The resulting 'inclusive design' (Eikhaug et al, 2010) aims to make products and services accessible to as broad a range of users as possible.

From user-led design to community-led design

Anyone introducing a technology to those who are unfamiliar with it needs a clear strategy. Simply providing a new technology to citizens will not in itself make them more 'creative', although it must be conceded that this was the business model of early YouTube (among others), provoking in turn the now prevalent phenomenon of user-created YouTube tutorials on all manner of subjects, eventually systematised by YouTube itself as specialist channels: YouTube Education, YouTube University and so forth (Burgess and Green, 2009). Taking such developments into account, what is more generally required for effective technology uptake is a process to discover how to enable the conditions of digital and creative literacy that allow communities to use technology to serve their particular needs. This process may involve modifications to the technology itself, iterated via tests with members of the community. It may involve upskilling some community members, the creation of exemplar content, meetings to co-curate content, custom instruction manuals and, in some cases, simplification and even limitation of technical functionality. In order to get the maximum benefit from new technology, most communities require expert support at the point at which they express the need for it. This kind of user-designed process is essential for the successful adoption of a user-designed or user-modified piece of equipment or procedure.

With community groups, the challenges of adopting a new technology rarely reflect lack of motivation – volunteers are almost by definition engaged in what they are doing. Nor, in an era where group members may regularly use a smart phone, is the problem chiefly

that of a conventional 'digital divide'. From a design perspective, the challenge feels more like 'process friction', typified by the bumpy process of, say, encouraging people at a group event to upload images or videos for curation as an engaging combined story. The challenge of doing this well may arise as from the cultural issue of individual levels of comfort at 'broadcasting' themselves or different approaches to storytelling as much as from technical obstacles.

In the user-design world, the importance of reducing these frictions is well established (Cooper, 1999). But even among designers, there is a danger of focusing too much on the user as an individual rather than as a group. The result of this is to ignore complexities which cannot simply be set aside. Even in the academic field of computer-supported cooperative work, which focuses on interaction design for cooperation, most attention has been placed on inter-/intra-workplace collaboration, with a goal of scalability. Given the acknowledged and growing significance of community-level activity, or creative citizenship, in many domains, from the 'maker movement' and community-based social care to community journalism, there is an urgent need to respond in technology design terms to the needs and intricacies of community settings, where a group will likely contain very wide differences of age, background and skills, whilst enjoying high levels of affinity and motivation.

All of this points to the potential for community-led design, learning from the experience of user-led design, to address this process friction. It requires that communities themselves, facilitated by designers and researchers, frame problems and that co-developed solutions are then responsive to their use in practice among groups. People need to be 'actively and creatively' engaged in order to participate; it cannot be assumed that technology and access of themselves will create the conditions for creative citizenship (Tacchi, 2012: 230).

Technology in practice: community journalism

Technology can be defined very simply as tools used by people. So it is helpful to consider a pre-digital technology to identify some of the key concepts, methods and issues that may still apply to the technology needs of an online hyperlocal community media operation.

The village noticeboard offers a strong analogue image. It crops up constantly in discussions about contemporary hyperlocal media, especially when addressing someone unfamiliar with this latter term. The twin point is that the village noticeboard is both familiar to

everyone and has a great deal in common with a blog-based hyperlocal news service (see also Li, 2009, for a Chinese version of this example).

The noticeboard, first, is usually placed somewhere central to the community, where it is likely to be seen: by a bus stop, on the village green, in a churchyard or outside a shop. The technologies used by hyperlocal communities are also similarly 'everyday' and therefore afford accessibility, without having to look to new or unexpected platforms outside a routine frame of reference. Roughly two-thirds of UK hyperlocal blog pages in our content analysis used WordPress, a long-established and standard platform; the remaining third were largely Blogger.com. Facebook, Twitter and email mailing lists are also used, sometimes as supporting roles to blogs offering additional audience participation and sometimes as a stand-alone service.

Second, the technology of the noticeboard is highly accessible and quite flexible. It is light enough to be mounted anywhere, has enough space for several A4 sheets to be displayed; these often protected from the elements and vandalism by a glass front. Similarly, platforms such as Twitter might be seen as 'light' and 'transparent', and widely used by hyperlocal editors, but also contributors, to offer firsthand experiences and news. Most of this news will be banal rather than sensational, less political drama or catastrophe, and more traffic and planning issues or recording visual evidence of dog mess.

Third, and perhaps most tellingly, noticeboards under glass demonstrate the pros and cons of mediated community media. A glass cover can be used to keep notices dry, but it also introduces a gatekeeper; that member (or those members) of the community who hold the key to unlock the doors and pin up a new notice or take one down. Even if the policy for putting up new material is relatively open, that individual must be contacted and faced in order for a new notice to be displayed and therefore broadcast (often with a request for response through contact details). If a policy of fair use is in place, this is another hurdle for the participatory citizen to overcome – the contents of the notice might not be in keeping with village community priorities, the notice may be too large, or the individual may have posted too many notices in a short period of time. Alternately, individuals may gain unfair access levels *because* they have posted frequently and developed a relationship with the keyholder. The same can be said of hyperlocal media, where it is one thing to provide a source or input for a story and publicly reference the hyperlocal platform (by mentioning them in a tweet, or posting to a Facebook page's wall), but this contribution only becomes visible to the wider audience if the 'editor' mediates to retweet, or reshare the content to their own 'stream'. Our research

supports the argument that mediation (and certainly the setting up of hyperlocal operations) are necessary for effective civic engagement, but it is this mediation, and key relationships favouring certain community 'primary definers' (Atton and Wickenden, 2005), that must be considered in the interest of a healthy online public sphere and democracy. One solution to a problem of this kind in the online world, or the world of the village noticeboard, is for an under-represented group to establish its own community media platform in competition with existing outlets.

Technology in practice: co-design

Debates around the meanings of co-design, co-creation, participatory design and community-led design have featured in a number of places in this book. Our fieldwork took as given the requirement that 'people who will be using a product, service or environment, are involved in designing or planning it' (Sanders and Stappers, 2014).

Much social design work with communities is viewed as a kind of intervention, an attempt to influence behaviour, based upon assumptions about how people will act, what people are like and how to get them to do something new (Lockton et al, 2014). As Adam Greenfield (2013) notes: 'Every technology and every ensemble of technologies encodes a hypothesis about human behaviour'. The process of a design researcher actively involved in this context is thus one of continually questioning these assumptions and refining the hypothesis or model. The approach embraces complexity and shuns oversimplification: '... rather than create distancing caricatures, tell stories. Look for ways to represent what you've learned in a way that maintains the messiness of actual human beings' (Portigal, 2008).

Where a community is adapting or making use of existing technologies in new ways, this may comprise much of the design element. As with any technology, there are specialist skills involved in designing systems, and expectations that community groups will somehow immediately start designing entirely by themselves risk disappointment.

Relevant methodology questions in this type of research, therefore, centre upon the degree to which external design researchers are needed as part of the process, and how to negotiate this boundary in different projects with different groups. In the Story Machine case study below, we will see how a combination of design and facilitation from researchers – with insight, inspiration, and evolving articulation of needs by diverse members of a community group – led to the design and

implementation of a technology system which fitted the community's style, yet also led to unexpected and novel forms of engagement.

Technology in practice: creative networks

A starting point for the community media aspect of the Creative Citizen project was to investigate the current state of community mediation and to discover how the newly available, everyday affordances of digital media production tools and social media were being used in the local media ecology.

Our research context included the relationship between the creative economy and communities. In 2013 the Nesta Creative Economy Manifesto put the size of the UK Creative Economy at 9.7% of Gross Value Added, employing 2.5m people (Bakhshi et al, 2013: 10). This made it a bigger segment of the economy than financial services at 9.4% (2011 calculations BIS, 2012: 10). Most of this creative economy consists in microbusinesses, that is to say businesses with zero to nine employees (Rhodes, 2012). In the Brighton Fuse report, 85.1% of the businesses surveyed in the region had fewer than ten employees, with 41.8% in the two to five range (Sapsed and Nightingale, 2013: 14).

Barriers to entry into the creative economy have been lowered by the availability of relatively inexpensive technologies of production, raising questions about the risks of a potential oversupply of creative talent in a period of coincidental economic austerity. Young people trying to make their way in this sector have been identified in critical cultural economics as typical of a newly 'precarious' creative class. Its workers are said to be characterised by:

> ... a preponderance of temporary, intermittent and precarious jobs; long hours and bulimic patterns of working; the collapse or erasure of boundaries between work and play; poor pay; high levels of mobility; passionate attachment to the work and identity of the creative labourer (for example, web designer, artist, fashion designer); an attitudinal mindset that is a blend of bohemianism and entrepreneurialism; informal work environments and distinctive forms of sociality; and profound experiences of insecurity and anxiety about finding work, earning enough money and 'keeping up' in rapidly changing fields. (Gill and Pratt, 2008: 14)

For McRobbie (2011), creative precarity 'has become the distinctively British way of dealing with structural and seemingly irreversible changes to the work society'. More recently, US researchers Kuehn and Corrigan (2013) have coined the term 'hope labour' to describe the work of online reputation-building by bloggers and reviewers aiming to build a portfolio that will lead to properly paid work.

In many ways, South Blessed, our informal creative economy case study, can be understood neatly within this framework. The economic and technological resources in the South Blessed network at the time of our research were negligible. We were struck by the way that 'the Mac' (desktop computer) was identified as a critical asset, along with the South Blessed video camera. Access to the digital means of production is not in fact universal; not all young people can afford the laptop that equips them for membership of the digital creative class. Other income came from street bucket collections aimed at raising funds for media training; paid jobs doing music promos at very low rates; a little corporate sponsorship for equipment and software; and the familiar mix of freelance, higher education student loans, training, internships and Jobseeker's Allowance that underpins the informal creative economy. The South Blessed studio building was made available as part of a 'live and work' sustainable regeneration scheme and depended on a great deal of flexibility on the part of the landlord. So access to technology and the South Blessed publishing platforms were a crucial motivation for being involved in a network that is resource poor but rich in aspiration.

The positive tone in which members of the network evaluated its impact belied its bleak financial base. The precarious economic mesh is sustained by all kinds of different affective dynamics, self-actualisation, branding, family ties and mutualism. We read this compelling contradiction as evidence of new forms of subjectivity, creativity and resistance that are the paradoxical counterparts of the 'precarity' described by Gill and Pratt:

> Precarity signifies both the multiplication of precarious, unstable, insecure, forms of living and, simultaneously, new forms of political struggle and solidarity that reach beyond the traditional models of the political party or trade union. This double meaning is central to understanding the idea and politics associated with precarity; the new moment of capitalism that engenders precariousness is seen not only as oppressive but also as offering the potential for new subjectivities, new socialities and new kinds of politics. (Gill and Pratt, 2008: 3)

In this case the paradoxical 'new subjectivities, new socialities and new kinds of politics' constitute a network that is neither creative economy start-up nor community media operation, but a newly possible mix of both. Access to the means of digital production and the ability though social media to market a brand are crucial effects of the technological affordances that have lowered barriers of entry to the cultural industries market. The South Blessed strategy was to create an open web platform to host music videos from their regional milieu, creating an open publishing platform that aggregated attention and built a brand. However, the motivation here was not to create intellectual property that could be exploited as a business development strategy; the culture of sharing that characterises the digital native generation was deployed to grow a network that sought creative, economic *and* social benefit. In this way, access to technology underpins the profile of a new kind of creative citizen, what might be termed the creative economy social entrepreneur.

Case study: the Story Machine, The Mill, Walthamstow, London

Figure 10.1: Images from the Story Machine project

The Mill, a community centre in Walthamstow, east London, provides space and resources for local creative citizens to organise groups, events and activities for adults, children and families, ranging from art exhibitions to book clubs and language classes. The Story Machine project at The Mill (Lockton et al, 2014) demonstrates how presenting digital technology (tablets, projectors, website and social media) in ways which fit with existing community activities and aesthetics, can lead to novel and significant forms of engagement.

Essentially a combination of mini-cinema, puppet booth, and video camera, with its own online presence, the Story Machine shows how community groups can adapt technology to their needs

and circumstances using a process of community-led design where problems are addressed directly by community members and facilitated by designers and researchers.

Through a process of collaborative workshops involving volunteers and participants at The Mill, designers from the Royal College of Art's Helen Hamlyn Centre for Design, and local artist Michelle Reader, we arrived at a collaborative brief designed to enable The Mill community to distribute stories more widely and more easily, through a combination of digital and physical technology, incorporating low-tech artefacts and activities. These innovations needed to fit with, contribute to, and even extend the activities already taking place at The Mill, drawing in the wider community, and providing evidence of The Mill's impact on its local area (important for funding bodies).

The focus on storytelling, in one form or another, features in a number of elements of the Creative Citizen project. In every case, the activities and artefacts developed are 'one-offs'. In community-led design there is no one-size-fits-all. The Mill's brief led us in the direction of what became the Story Machine, built around a Story Chair (mini-cinema) wirelessly connected to the Story Wheel (an iPad Mini built into a steering wheel). The Mill can use the Story Wheel to film and photograph their activities. These then upload automatically to the Story Chair, where they can be viewed and shared, and to The Mill's website, ensuring an ever-changing kaleidoscope of images of activities which reflect day-to-day life at The Mill but in a way that is also visible to any online visitor.

Community activities were then built around the new affordances of the Story Machine – such as 'junior reporter' classes where young people learned journalistic techniques through interviewing each other and visitors to the centre, producing videos and then collectively critiquing them via the Story Chair. Novel usage patterns emerged; for example, younger children combined the ability for a projector to be used with homemade cardboard shadow puppets, with the real-time streaming video from elsewhere in the building. This led to a memorable production in which a local councillor, interviewed via the Story Wheel and projected on screen, is being 'attacked' by cardboard dinosaurs, oblivious to his predicament. This type of juxtaposition of technologies potentially affords many unexpected 'end user' innovations (von Hippel, 2005).

The Story Machine also enabled the exploration of questions about the creative potential of digital technology. Might it boost motivation and engagement within community groups? What might be judged to be the rewards for involvement? Can the opportunity to be creative,

and show this off to other local people (or people further afield) be considered a sufficient motivator? Does this kind of creative work in a community context help generate a greater sense of belonging?

Case study: Facebook as a platform for hyperlocal media

Hyperlocal Facebook pages such as those set up in Wolverhampton (WV11.co.uk) and Cannock (ConnectCannock.co.uk) offer opportunities for discussion of local issues but, in many respects, are revealed to be mediated in the same ways as traditional media, partly a function of the structure and rules governing the technological platform (Bakardjieva, 2003).

Hyperlocal community websites are typically set up by citizens to service their neighbourhoods with news stories about local events, activism, and everyday concerns such as traffic problems. In the UK, a number of platforms have been launched by larger media corporations, often on a local franchise basis, but it is arguably the bottom-up, independent and non-commercial spaces that engage audiences more successfully. Citizens tend to use the blogging platforms Blogger or WordPress as they are free, adaptable and easily recognised by users. Even if the owner applies some creativity through a novel template, WordPress and Blogger productions are visually decodable as blogs, and this design affords an understanding of how the site should be used.

In addition, many of the same hyperlocals also use other social media, either to help promote the content they are blogging, or to use as a second output or mode of participation. Platforms such as Foursquare and YouTube are occasionally used, but more common are Twitter and Facebook. Here we focus upon the use of Facebook. There is a widespread expectation that Facebook is better at engaging an audience of everyday neighbourhood residents, reflecting the fact that it has been longer in the market and more widely adopted for personal and family usage, whereas Twitter followers and conversationalists are more likely to be other hyperlocal peers or organisations, such as the police or local authority councillors.

Hyperlocal media practitioners set up Facebook accounts because they see it as a way to situate their media within the everyday practices of residents – they are 'pushing' their content to people through the platform, rather than assuming users will regularly seek out ('pull') their content from their blog. In many cases, residents will start the day by checking Facebook (in general) before any other web service or page. New readers tend to find out about the hyperlocal's existence in the first place through existing networks of friends and family, discovering

shared hyperlocal Facebook content, or by doing searches for local keywords on Facebook.

Practitioners also appreciate and understand that the norms of Facebook do not require them to write full-blown, perfectly eloquent stories, as they would in blog posts; rather, they can write shorter, more immediate and more frequent posts. This allows editors to address as it occurs everyday news such as power cuts, lost animals and school closures. Recognising the immediacy of this, hyperlocal editors will sometimes use Facebook as their primary platform, and blogging or Twitter as a secondary route.

In some cases, for hyperlocals wishing to engage new and larger audiences, using Facebook will seem like a simple case of adding another social media platform to their repertoire. It is simple enough, using free online tools such as *If This Then That*, to cascade content down a tree of media so that an initial blog post will then be automatically posted to Twitter, Facebook, and other platforms. In our research, two of the hyperlocals we worked with routinely did this, *Tyburn Mail* and *Connect Cannock*. At the time of our research, these Facebook pages had 1,158 likes and 1,843 likes respectively (January 2015). That gives an indication of their potential viewing audience on a daily basis, ignoring the fact that this may temporarily increase when their content is shared and keeping in mind that we do not always actively continue to read the things we sign up for via such things as mailing lists.

But even if we assume that only a small percentage of those 'likers' is seeing those posts, we might still assume there would be some level of interaction – likes, shares or comments. If we look at the following example from *Connect Cannock* (Figure 10.2, left), this turns out not to be the case.

Without being able to see restricted Facebook 'insights' statistics, it is impossible to gauge how many readers are clicking on the links that take them out of Facebook to the respective blog pages. This may reflect the difficulty that if someone does click and is temporarily removed from Facebook as a result, they will not necessarily return to 'like' or comment on that post. Some people may be reticent to click through because it removes them from their Facebook session. Regardless, there is no obviously visible interaction in the image – and this may also put off other potential participants: the Facebook equivalent of the busker's empty guitar case. There is no indication that the norm is for readers to participate.

Now consider the use of Facebook by another hyperlocal news provider: the Wolverhampton-based WV11 (Figure 10.2, right).

Figure 10.2: Left: Screenshot from *Connect Cannock*'s Facebook page. Right: Screenshot from WV11's Facebook page, a lost cat announcement showing replies.

This illustrates an audience approach involving reciprocal participation, leading to additional energy and content on the Facebook page. How is this achieved? First of all, not all the content on WV11's Facebook page drives users out of the platform via hyperlinks. When possible, the complete message, including images, is included in the Facebook post, making it easier for readers to interact and add to the conversation. In addition, the content is varied, from questions of council activity and events to banal concerns such as the weather. In these postings, the writer follows the novelist's advice: 'write what you would like to read'. The writers have an understanding of what is important to the community, including issues of local identity and pride; as a result they often tap into the community zeitgeist. Some posts are also very short and more or less marked as inconsequential; but, as a result, people feel they can commit on a similar level. Examples of stories with high levels of such interaction include asking readers whether they use gas or coal for their barbecue in the spell of good weather, and on Mother's Day, whether they call their mother 'mom' (local dialect) or 'mum'. Neither post can really be described as a news story, but both generated scores of responses. The effect of these banal stories is ongoing throughout

their stream and softens the background against which harder-hitting content appears. It also explicitly aims to develop a sense of online community that is geo-specifically situated. As a result, everyone knows where they are, in a physical but also social and cultural sense.

The magic ingredient here is that the writers take the time to observe and understand what is working for their admittedly larger audience (over 6,000 likers). If they ever automate blog posts out to social media, they usually take the time to contextualise each with a few additional 'human' words, rather than relying upon the activities of a robot. It would not be safe on the basis of our research to declare a correlation between such automated posts and the lack of participation in the examples shown, but the traffic patterns on the different Facebook pages suggest that the 'human touch' of a citizen journalist or editor, who is resident in and knowledgeable about a community, is more likely to start helpful, participatory conversations in these online spaces and so to build the level of activity on the site.

Case study: South Blessed

South Blessed is a 'technologically determined' enterprise. By that we do not mean the technologies deployed are the sole determinant of its form and of its impact, but we do mean to stress that South Blessed would not exist without digital media production tools (video camera and editing software) or the social media means of distribution for video productions. The core activity for South Blessed is video production. It makes its limited video production kit available to trusted network members and offers documentation and music clip services for less than £100 per day. At the time of our research survey South Blessed called itself a 'community channel' centred on a website featuring 3,000 video clips, mostly music from local and regional artists, but also news reports, dance, fashion, graffiti exploits and live events, including experiments in live streaming opinion pieces from the studio. The network also hosts a YouTube channel with 1,400 subscribers and over half a million views; and two Facebook sites, one for South Blessed with (at the time of writing) 386 followers, and one for the proprietor Vince Baidoo with 2,397 friends. Additionally, Vince runs a South Blessed Twitter account with 380 followers. Hip hop and dubstep music videos are the core content, attracting a steady flow of YouTube views from 500–5,000 with a few at 20,000 plus views. (One of these is a five-minute feature on the Stokes Croft Tesco Riot that blew up near the South Blessed Studio in 2011.)

The South Blessed website proclaimed itself as open to all talent across the South West (of England) and the editors of the site would embed music clips and interviews from across the region, building a platform that created profile and connectivity for a range of users. Traffic was maintained through Facebook sites which announced and promoted new content and also became a noticeboard for network members to post news of live nights, or new music releases. The proprietor's Facebook site also discussed South Blessed's progress and was strikingly used to share decisions and difficulties; for instance, the request to be part of the local police liaison group was debated on Facebook, as were some of the decisions arising from our own co-production. For many users, Facebook is the first recourse when confronted with decisions or opportunities that need dialogue – these tactics of default openness also protect creative citizens like Vince Baidoo from the inevitable accusations of elitism or exclusion that their leadership roles attract. The enormous amount of work, enthusiasm and commitment in producing and promoting these assets underpinned the development and maintenance of the South Blessed brand, discussed in Chapter 9.

Technology, however, was also operative in this network at another level. Key members of the network are technology enthusiasts. The pleasure of learning the new tricks of cheap graphic software is palpable in the design styles of the many of their self-made music videos. Experiments in live streaming from the studio were led by a partnership with software developers who welcomed South Blessed as beta testers. For this network, the internet is a core learning environment, an infinite resource for opinion, theory (however untested) and information. The group works from the assumption that there is no task that cannot be learnt from the internet. This technological enthusiasm and web-based informal learning culture was profoundly influential in the co-production that the research team undertook.

Our ethical agreement with South Blessed was based on the principle that whatever we did we would try to ensure that our relationship left the network stronger and more sustainable than when we first encountered it. The first set of ideas for co-production centred on a manga-style film featuring a set of characters and a story that Vince had been developing with a collaborator for some time. Discarded on the grounds of cost, the film script eventually became the graphic novel *Indigo Babies*. The research team introduced the idea of transmedial storytelling, suggesting that the story and the characters could be launched in comic, online and video clip form, building an audience for a bigger production in the future.

This decision was driven at one level by the mutual recognition that the online assets and profile developed through digital video production and social media did not have the potential to produce a sustainable business model for the enterprise. The attention of a local audience numbering in the low thousands was insufficient for advertising or sponsorship revenue. The market in video services at £100 per day in the informal music production space was similarly inadequate as a means of sustaining the business. So the technological affordance that made the whole enterprise possible also appeared to undermine its sustainability. A physical product with a cover price and therefore a steady income stream presented itself as a low-tech but sustainable solution.

Technoculture is an active ingredient of the *Indigo Babies* comic. 'Indigo Children' is an internet meme that wants to recognise children's telepathic or magical powers as an alternative to the plethora of disabling diagnoses of dyslexia, ADHD, autism and Asperger's disorder that are also popularly read as a response to too much technology too soon. The Indigo Babies of the South Blessed comic are a group of young people with extraordinary technological powers, super hackers with special telepathic abilities and a commitment to social justice and greening the inner city.

The story can be understood as a creative response to the themes of the research: it portrays technologically adept young people trying to survive and build a community in a recognisable inner city Bristol. The group is challenged in a 'which side are you on?' crisis when a riot breaks out on their doorstep and they are forced to decide whether they will use their collective intelligence for violent or nonviolent ends. The comic is a physical and saleable creative property but it also dramatises the ethical dilemmas of the South Blessed community.

Conclusions

Finally then, we ask how is today's technology working in practice for creative citizens? And how can it work or be used better?

It is clear, first of all, that there is no set rule for how any technology should be used, as we observe in open internet standards, for example, where they are malleable, transformable and shift along with user requirements. When top-down platforms are designed, iterated and launched, such as Facebook, even if this design process has involved user experience research to deliver the best product, audiences and users will always surprise with their reappropriation, hacking or modification ('modding') of technologies. However, when platforms

continually upgrade, redesign and change their terms of engagement without apparent benefit or explanation to the user, this causes unrest. The basic message to creative citizen networks is this: use those tools at your disposal that best match your own resources. If you want free and quick, that may mean Facebook. But also try to use tools creatively, exercising their full potential.

Everyone should recognise that high-tech, or the latest, highest tech, is not always suitable for all citizens. Many prefer old media such as print, or old communication forms such as face-to-face conversation and meeting at events. It may be better to start with print or a notice board and then move online, to social media and the use of apps; or it may (as we have shown) sometimes be necessary to reverse engineer from online platforms to physical media.

People develop different technological understandings and expectations within a community – this is one of the most important factors that a creative citizen looking to mobilise others in a neighbourhood can recognise. Building a new iPhone app to deliver news will appeal to a tranche of iPhone users; pushing leaflets through doors may get a message out to many more people. Don't seek to innovate at the expense of alienating everyday communities who don't want to be working hard for their media, or for methods to mould and co-design experiences. Go to them – don't expect them to come to you.

Digital technologies – their default setup, interface, password and security settings and storage mechanisms – are usually designed for use by an individual and not by a community. That is one reason why communities may struggle and often rely heavily on key creative citizens with the skills needed to act as champions, editors and even providers of server capacity on their behalf. For these people, usually volunteers, maintaining these digital activities can become a chore, so it is hardly surprising that such flows of communication or news become mediated spaces. In creating these spaces and platforms, editors, readers, audiences, participants, and a whole raft of other roles must be negotiated with care. On the one hand, mediated spaces become problematic if key participants exercise power over the rest of the network in an ill judged way. On the other, we recognise that such acts and projects of community creative citizenship would not be initiated at all if not for these key individuals. Leadership is necessary. The best we can hope for is understanding and transparency in such relationships, supported by the opportunities that technology offers in maintaining communication and collaboration in everyday life.

A group's reliance on its key people can mean that – for researchers – community-led design process often becomes based around the skills, abilities and interests of the key people rather than the wider community. In order to ensure that everyone has the opportunity to engage with evolving communication technologies, it is necessary to include the full range of community members in any co-creation process. Shifting reliance from working with a key person to working with a group of key people will also help to create shared ownership and responsibility, ultimately leading to a more sustainable technology project.

The co-creative case studies described in this chapter and elsewhere in this book were based in 'traditional' responses to the needs of creative citizen networks: a digital storytelling installation, a newspaper, a comic, an image sharing web planning platform, collectively used Facebook pages. Our emphasis on friction-free processes for community inclusion will become more urgent as the age of urban informatics intensifies. Already 'smart cities' of the future are imagined as places where data infrastructures will make the city more efficient, healthier or greener (de Waal, 2011). The future citizen is imagined as the producer of *and* the subject of urban information systems. The approach to technology that this chapter has described suggests the need for a radically new way to imagine the role of technology in the cities of the future; rather than relaying the top-down application of data systems to the everyday life of the city, our work makes the case for this to be balanced with smaller scale networks co-designed around the particular needs of identifiable user communities. Such networks would be designed to maximise trust so a level of participation that creates value is visible and available to the whole user network. We do not face a choice between big infrastructures, such as evenly spread broadband and mobile communications systems, and smaller systems designed by creative citizens for creative citizens. Big and small are both necessary. Without the latter, the former face an intensifying crisis of trust; without the former, creative citizenship will lack a resource critical to achieving its true potential scale.

Note

[1] Story at: home.web.cern.ch/topics/birth-web