Reconciling Community and Commerce?

Collaboration between Produsage Communities and Commercial Operators

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Abstract

Collaborative user-led content creation by online communities, or produsage (Bruns 2008), has generated a variety of useful and important resources and other valuable outcomes, from open source software through the Wikipedia to a variety of smaller-scale, specialist projects. These are often seen as standing in an inherent opposition to commercial interests, and attempts to develop collaborations between community content creators and commercial partners have had mixed success rates to date. However, such tension between community and commerce is not inevitable, and there is substantial potential for more fruitful exchanges and collaboration. This article contributes to the development of this understanding by outlining the key underlying principles of such participatory community processes and exploring the potential tensions which could arise between these communities and their potential external partners. It also sketches out potential approaches to resolving them.

Keywords

produsage, Web 2.0, collaboration, commerce, Pro-Am

Bio

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Introduction: Towards Produsage

'Web 2.0' is a wonderfully misleading term. It suggests a decisive changeover – from version one to version two – and holds the potential for this supposed second era to come to a close as well, as 2.0 is replaced by 3.0 and beyond. Such revolutionary changes in the human appropriation of technology rarely (if ever) take place: technologies are not simply replaced by one another, but gradually fall into and out of favour, with specific usages of technology evolving as they do so. Close to the tenth anniversary of the 'Web 2.0' concept, the point is not that 'Web 2.0' has replaced 'Web 1.0', but that some core attributes which characterise Web 2.0 – the prevalence of participatory, collaborative practices conducted through interactive, multi-user Web platforms – are now firmly established in our day-to-day experience of the Web.

Whether other promises associated with large-scale user participation in sharing and creating content have also been fulfilled remains a more open question. Yochai Benkler wrote in 2006 that these new practices

> hint at the emergence of a new information environment, one in which individuals are free to take a more active role than was possible in the industrial information economy of the twentieth century. This new freedom holds great practical promise: as a dimension of individual freedom; as a platform for better democratic participation; as a medium to foster a more critical and self-reflective culture; and, in an increasingly information-dependent global economy, as a mechanism to achieve improvements in human development everywhere. (2)

Have such dreams been achieved through what Benkler describes as "commons-based peer production"? Perhaps not, or at least not fully. Efforts to "harness the hive" (Herz 2005) in pursuit of purportedly higher ideals continue, from *Wikipedia* to *WikiLeaks*, arguably with some degree of success; in keeping with its tagline, *Wikipedia*, in particular, *has* established itself as a truly free encyclopaedia available in hundreds of languages, covering a vast array of human knowledge. Several other publicly-minded projects – including some, though not all, of the Wikimedia Foundation's own *Wikipedia* spin-off projects – have been similarly successful.

The success especially of projects like these has also led to an interest in harnessing the hive for commercial purposes, and in business models which combine the interests of corporations and communities to mutual benefit. *The Guardian* has projects aimed at crowdsourcing the journalistic effort; the most noteworthy is perhaps the MPs' Expenses platform that enabled nearly 30,000 users to sift through over 450,000 expense account documents of British MPs in search of misused funding. Readers worked through roughly half of these documents, uncovering many dubious expenses claims (Andersen, 2009). NASA addressed the challenge of identifying the myriad of craters on high-resolution imagery of Martian terrain by engaging Web users as 'Clickworkers': cumulatively, these untrained space enthusiasts produced results at a level comparable to that of skilled exogeologists (Kanefsky *et al.*, 2001).

Other 'Web 2.0'-inspired attempts to crowdsource ideas or collaborate with enthusiast communities range from co-creative design in the computer games industry (e.g. Banks, 2002; 2009) through online participatory decision-making in government (e.g. Parycek & Sachs, 2009) to exploring emerging ideas of 'social innovation' (cf. Mulgan, 2011; Murray *et al.*, 2010). These examples represent something notably different from the self-determined, independent *Wikipedia* or open source model: in each case, established (commercial, governmental, civic) organisations attempt to engage the enthusiast communities which are believed to exist in their fields.

Wherever they originate, such developments require a clear understanding of the conditions for, processes of, and motivations for community participation in 'Web 2.0' platforms. This article aims to contribute to the development of this understanding by outlining key underlying principles of participatory community processes and exploring potential tensions which arise between communities and their potential partners. It sketches out potential approaches to resolving them. This is important: first, a more sophisticated mutual understanding increases the likelihood that collaborative projects are sustainable and successful beyond the short term, generating commercial and communal benefits; second, more equitable models of engagement between corporate and community partners also open up new possibilities for the collaborative creation of content and ideas, and enable the application of such models to new fields of knowledge; third, such more widespread application also gives rise to models of organisation and activity which are neither wholly corporate or communal nor simply a hybrid of the two, but genuinely new.

As Murray *et al.* (2010: 8) put it,

> most social change is neither purely top-down nor bottom-up. It involves alliances between the top and the bottom, or between what we call the 'bees' (the creative individuals with ideas and energy) and the 'trees' (the big institutions with the power and money to make things happen to scale).

In this reconciliation of divergent interests, a crucial role emerges for what Leadbeater & Miller (2004) describe as 'Pro-Ams': nominally 'amateur' participants who operate from within the community at professional levels of ability and commitment. This article explores pathways towards such reconciliation, and outlines, in necessarily generalised terms, potential ground rules and opportunities for genuine collaboration.

Why 'Produsage'?

This builds on key principles of participatory produsage processes as previously identified (Bruns, 2008a), and explores opportunities for connecting community-driven processes of collaborative content creation with more conventional, commercial models of content production and dissemination with which community content creation is often (and sometimes unnecessarily so) seen to be in conflict.

The challenge begins with the language used to describe these processes. Benkler writes, for example, that "the point to take home from looking at Google and Amazon is that corporations that have done immensely well at acquiring and retaining users have harnessed peer production to enable users to find things they want quickly and efficiently" (2006: 76), but it is difficult to see how these user processes truly constitute content *production*, even if repositioned as 'peer' production (however we choose to understand that term). Google and Amazon, in particular, are especially poor examples of user-led content 'production' in any conventional sense: in generating the PageRank scores which underpin its search index, Google simply tracks the linkage activities of as many Websites as it can find, and users' clicks on the links which Google itself provides as users search for information; in making its recommendations of what products customers may find interesting, Amazon evaluates the purchasing decisions of its entire customer base. Linking and liking, however, are far removed from what is customarily understood as production.

Indeed, even simple *usage* of these services is ultimately productive (of the Google search index and of Amazon's recommendations); for many other 'Web 2.0' services, too, the transition from user to content creator remains almost unnoticeable, and this is a crucial feature – it is this granularity of tasks, this ease of moving beyond a role as mere 'user', which encourages more users to participate in the process. Such sites place their visitors in a hybrid role which enables them to be potential users and potential producers of content virtually at the same time: as *produsers* –participants engaging in *produsage*.

By contrast, the language of content *production* (or its close relation, prosumption) which is commonly used to describe potential processes of participative engagement between user communities and commercial (or other established organisational) interests enshrines asymmetrical power relations. Language shapes perceptions and partly prefigures solutions (cf. Lakoff & Johnson, 1980); if language of production maintains the primacy of (professional) producers over mere consumers or users, or suggests major differences between them and thus implies significant hurdles on the path from consumer to producer, it undermines the transition to productive participation which produsage platforms build on. The very concrete effects of conventional consumer/producer distinctions on users' self-perception should not be underestimated.

If 'prosumption' (and the somewhat more benign 'crowdsourcing') are positioning productive consumers in the crowd as a mere amorphous source of volunteer labour to be harnessed and exploited (cf. the articles by both Bolin and Schmidt & Loosen, in this issue), they hinder the development of more equitable models for collaboration between communities and corporations; in pursuit of short-term gains from crowdsourcing thankless tasks, the potential for generating valuable long-term outcomes through more intensive collaboration is never fully explored. If we accept Lévy's perspective on the untapped potential of collective intelligence (1996), this is a tragedy; even considerably more pessimistic readings of 'Web 2.0', though, similarly begin by critiquing the rhetoric associated with it.

Therefore, it is necessary to attend to definitional matters. First, we position 'user' as the generic term to refer to any individual making use of participatory sites or platforms; 'user' spans the full range from 'mere' *consumers* of information available from these sites through to more or less active *contributors*, and even to those working to near-professional standards. Second, it is already evident from this that the users of any given site form more

or less elaborate structures, depending on the depth of interaction which the platform enables, and on the external means of communication and organisation which may also be available (such as companion Websites, social media, mailing-lists, face-to-face fora, etc.). Where such structures in the userbase form more permanent shapes, we define this as a 'community'; where the userbase continues to be so transient or atomised that structures remain impermanent, it is simply a 'crowd'.

Communities, then, exist around a core both of highly committed and engaged users, and of shared values, practices, and knowledges held strongly by these users, collectively developed and defined over time; beyond this core exist several layers of progressively less committed users, and less widely-held attributes. Community membership and values change over time, but more rapidly at the periphery of this concentric structure than at the core. (This understanding of online communities dates back at least as far as Rheingold's *Virtual Community*, 1993, and also draws on Hebdige's work on subcultural communities, 1979; also see Baym, 2000.)

The focus of the following discussion is on collaboration in online communities, dealing with information, media, and creative content; extensions even into physical realms are possible (de Paoli & Storni, 2011, discuss the electrical engineering produsage community around the Arduino circuit board; von Hippel, 2005, describes collaborative innovation processes in kitesurfing; Leadbeater & Miller, 2004, point to world-wide networks of amateur astronomers), but due to the additional material and technological barriers to entry in such cases constitute less straightforward examples. Participation in purely online communities is limited only by users' network access, available time, and relevant expertise – these, too, constitute non-trivial barriers, but are nonetheless more easily overcome by greater numbers of participants.

For such collaborative online communities, Bruns (2008a) identifies key principles of produsage-based content creation:

1. Open Participation, Communal Evaluation

Produsage communities assume that the more participants are able to examine, evaluate, and add to the contributions of their predecessors, the more likely an outcome of strong and increasing quality will be. Participation is therefore invited

from as many potential contributors as possible, and produsage environments are generally open to all comers; they follow a principle of inclusivity, not exclusivity.

2. Fluid Heterarchy, *Ad Hoc* Meritocracy

While skills and abilities of participants in produsage projects are not equal, they have an equal potential to make worthy contributions. This perspective allows project leaders to emerge from the community based on the quality of their contributions, and necessarily departs from traditional, hierarchical organisational models; produsage community stuctures are heterarchical and in constant flux. This does not imply that produsage communities are egalitarian: power dynamics do exist, but power is legitimated by proven merit rather than inherited status.

3. Unfinished Artefacts, Continuing Process

Produsage processes must necessarily remain continually unfinished, and infinitely continuing. Produsage does not work towards the completion of products (for distribution to end users or consumers); it is engaged in iterative, evolutionary processes aimed at the gradual improvement of the community's shared content. A description of produsage outcomes as 'artefacts' rather than products is therefore highly appropriate.

4. Common Property, Individual Rewards

Communal content produsage assumes that its artefacts will continue to be available to future participants just as they were available to those who have already made contributions; exploitation of content beyond what is seen as legitimate under the rules of the community must therefore be avoided. Such rules (enshrined in moral and legal documents including the GNU General Public License and Creative Commons licences) stipulate that community-held content must remain freely available, that modifications must be made available again under like conditions, and that contributions of individual produsers must be attributed. Through this attribution, produsers gain personal merit from their individual contributions.

Such principles date back at least to the emergence of open source software development as a credible alternative to hierarchically organised, closed-group models of software production practiced in commercial companies (what Eric Raymond describes as the 'cathedral' model of software development, in contradistinction to open source's 'bazaar'; 2000). Today, produsage practices are beginning to make their influence felt across many areas in media, information, and creative industries. A fully representative discussion of examples across these industries is well beyond the scope of this article, but – in addition to obvious examples from open source to *Wikipedia* – produsage processes can be observed in cases as diverse as the comprehensive botanical knowledge space *TelaBotanica* (Proulx *et al.*, 2011), the user-generated *Google Maps* alternative *OpenStreetMap* (Lin, 2011), the collaborative hyperlocal community news platform *myHeimat* (Bruns, 2010b), the content development communities for computer games from *The Sims* (Herz, 2005) to *Trainz* (Banks, 2002), and the collaboratively curated *JPG Magazine* for art photography (Bruns, 2008a). Some such projects (*myHeimat*, *Sims*, *Trainz*) were conceived from the start as commercial enterprises; some (*OpenStreetMap*, *TelaBotanica*) eventually attracted corporate, government, or non-government sponsorship; some (*JPG Magazine*, and other smaller projects) continue as community-run, funded or unfunded initiatives. Wherever they move beyond independent self-organisation, tensions between the community and its external partners are likely to emerge, and must be addressed.

Ultimately, how to minimise such tensions is also a question for policymakers. Benkler notes that "new patterns of production — nonmarket and radically decentralized — will emerge, if permitted, at the core, rather than the periphery of the most advanced economies" (2006: 3); such new, community-driven models may constitute considerable drivers of innovation. But as Quiggin notes, "if governments want to encourage the maximum amount of innovation in social production, they need to de-emphasize competition and emphasize creativity and cooperation" (2006: 494); the OECD's landmark report on the "participative Web", concerned with "whether and how governments should support" user-created content (Vickery & Wunsch-Vincent, 2007: 13), constituted an important early step towards that goal. It becomes important, then, to better understand potential sources of tension between produsage communities and their organizational partners, and to identify approaches to alleviate or avoid those tensions.

The Need for Systemic Change

To fully harness the potential contributions which produsage processes and their participant communities can make, a more systematic approach to supporting these processes is necessary. As Lévy puts it, "if we are committed to the process of collective intelligence, we will gradually create the technologies, sign systems, forms of social organization and regulation that enable us to think as a group, concentrate our intellectual and spiritual forces, and negotiate practical real-time solutions to the complex problems we must inevitably confront" (1997: xxvii). This requires systemic changes which do not take place only outside established industries and institutions, but crucially involve their participation: therefore, Benkler's consistent distinction between market and non-market spaces in his discussion of "commons-based peer production" (2006), for example, is not helpful.

A more useful model is found in Leadbeater & Miller, who describe the "Pro-Am":

> a Pro-Am pursues an activity as an amateur, mainly for the love of it, but sets a professional standard. Pro-Ams are unlikely to earn more than a small portion of their income from their pastime but they pursue it with the dedication and commitment associated with a professional. For Pro-Ams, leisure is not passive consumerism but active and participatory; it involves the deployment of publicly accredited knowledge and skills, often built up over a long career, which has involved sacrifices and frustrations. (2004: 20)

Pro-Ams bridge the commercial and the non-commercial, market and non-market; they "are a new social hybrid. Their activities are not adequately captured by the traditional definitions of work and leisure, professional and amateur, consumption and production" (Leadbeater & Miller, 2004: 20); they are users turned producers of content and knowledge – produsers – and engage in a form of 'serious leisure' which generates outcomes that are of immediate commercial or quasi-commercial value.

Pro-Ams should be seen as at the very centre of the concentric structure of their communities; as some of the most engaged, most active community members, they often are lead users (von Hippel, 2005) in their communities, and experts on their domains of knowledge. In recognising such community structures (as heterarchical rather than hierarchical; as something other than simply egalitarian and flat), produsage-based models

of engaging users differ most obviously from the more simplistic approaches of prosumption and crowdsourcing: where the latter take a merely stochastic approach, inviting as many contributors as possible in the hope that some will generate material ready to be exploited, the former (while open to all participants) assume that Pro-Ams and other lead users will not only contribute the lion's share of material, but that the visibility of their contributions will serve as a signpost of quality to other, less engaged participants. Produsage-based models of community engagement, in other words, do not ignore the existence of power dynamics within the community, but seek to harness these dynamics to promote constructive participation, for the benefit of the community itself.

Such Pro-Ams should be the first port of call for commercial and institutional entities seeking to connect with and develop collaborative relationships with produsage communities, then. They remain underutilised by potential external partners, however, who have yet to develop a more comprehensive understanding of and more sophisticated approach to engaging effectively with produsage communities. Many attempts to encourage contributions from user communities ignore some of the most basic tenets of produsage – they make contribution difficult, not easy; they provide no opportunity for regularly constructive contributors to accumulate and exercise their social status as community leaders; they treat users' contributions as disposable and bereft of individual value; and they often simply assign ownership of these contributions to the organisation operating the site.

In short, such relationships are still "producer-centric", in Westlund's terms (2012): power relations between institutions and users remain highly uneven (and thus an inherent source of tensions), and such basic attempts at harnessing the hive remain little more than a simple crowdsourcing of content and ideas. "What holds a collective intelligence together is not the possession of knowledge – which is relatively static, but the social process of acquiring knowledge – which is dynamic and participatory, continually testing and reaffirming the group's social ties", as Jenkins (2006: 54) notes – but these approaches tend to provide no means to support the operation of social processes, and to enable participating users to become a community with shared aims and ideals: users remain interpellated mostly as individuals, not as contributors to a greater whole.

Indeed, if Murray *et al.* (2010) are correct in their assessment, noted above, that most social change requires the cooperation of 'bees' *and* 'trees' (of communities *and*

organisations) it becomes even more important to avoid imbalanced, exploitative relationships between participating communities and commercial operators, and to develop sustainable approaches based on mutual benefit and respect. This must crucially build on far more sophisticated understandings of produsage principles and processes, and needs to begin with a focus on Pro-Ams as obvious points of connection between amateur produsers and professional producers – as Leadbeater & Miller note, "many of the most imaginative social innovations in the developing world employ Pro-Am forms of organisation" (2004: 11).

Debunking the 'Prosumer'

Conversely, it becomes important to eschew corporate language which positions external participants as audiences, customers, consumers, or even prosumers; such terms continue to imply and enshrine the static and uneven power relationships between commercial and community partners in produsage processes which it is now important to overcome. Of these, the latter – the "prosumer" – is perhaps most insidious, also because it is used so widely in corporate language without any attempts to fully consider and engage with available definitions of the term.

Although a portmanteau similar to "produser", "prosumer" holds altogether different connotations; it may mean either "professional consumer" or "productive consumer". The former may appear similar to Leadbeater & Miller's "Pro-Am", but sets a different emphasis: professional consumers need not engage in significantly productive, constructive activities, but may simply be especially knowledgeable but otherwise passive enthusiasts. Some enduring examples for such consumership are provided by customers of hi-fi home theatre equipment, or high-end gamers – they may be fully conversant with advantages of analogue tubes over digital amplification, or with the relative merits of the latest graphics cards, but – reflecting Jenkins's comments above – their knowledge remains static rather than dynamic and participatory; they consume rather than generate and organise knowledge.

An explanation of the "prosumer" as a "productive consumer" comes closer to Alvin Toffler's original definitions of the term (1970; 1980; 1990). However, where "produsage" explicitly suggests that usage and production fuse to a point where produsers are inherently placed in a hybrid position that enables them to become active, self-governed content creators, and where produsage processes are such that repeated constructive participation

requires advanced knowledge and thus naturally favours the emergence of Pro-Ams as lead participants, "prosumption" builds on no such assumptions; here, the potential of consumers to become more "productive" is simply activated through advanced new mechanisms for extracting their wealth and knowledge:

> producer and consumer, divorced by the industrial revolution, are reunited in the cycle of wealth creation, with the customer contributing not just the money but market and design information vital for the production process. Buyer and supplier share data, information, and knowledge. Someday, customers may also push buttons that activate remote production processes. Consumer and producer fuse into a "prosumer." (Toffler, 1990: 239)

Exactly how these developments constitute a *fusing* of consumer and producer, rather than simply a more effective system of exploiting consumers, remains unclear from this description. Indeed, Toffler's vision presents an even more lopsided "cycle of wealth creation", as consumers now freely contribute *both* money *and* knowledge, with the benefits of doing so remaining far from obvious. Elsewhere, Toffler paints an even bleaker picture of such prosumption: "in the end, the consumer, not merely providing the specs but punching the button that sets this entire process in action, will become as much a part of the production process as the denim-clad assembly-line worker was in the world now dying" (1980: 274).

Apparently without irony, Toffler describes this as "the willing seduction of the consumer into production" (1980: 275); it is therefore unsurprising that prosumption has experienced a resurgence in recent strategy documents and airport bestsellers describing corporate approaches to "Web 2.0". Whether in Toffler's own bleak vision, or as "professional consumer", the prosumer is a marketer's dream: an enthusiastic consumer who willingly provides money and information for the privilege to consume more, and more effectively; prosumers require little rethinking of conventional consumer roles, which, in Shirky's polemical terms, are to be "nothing more than a giant maw at the end of the mass media's long conveyor belt, the all-absorbing Yin to mass media's all-producing Yang" (1999a: n.pag.).

This vision of a grateful prosumer hardly resembles observable reality. Shirky necessarily exaggerates when he contrasts such dystopias with an idealised model of his own – "in place of the giant maw are millions of mouths who can all talk back. There are no more consumers, because in a world where an email address constitutes a media channel, we are all producers now" (1999a: n.pag.) – but self-evidently, the many contributors to the "participative Web" (Vickery & Wunsch-Vincent, 2007) do not just happily give up their knowledge and ideas without expecting anything in return; rather, contributors to participative and produsage processes, projects, and platforms engage various internal calculations of personal costs and benefits to be derived from contributions to the commons. Contrary to "prosumption", produsage attempts to encapsulate these calculations: produsage spaces are encountered in the act of *using* the information and knowledge already amassed there, and by providing low barriers to participation, highlighting opportunities for such participation, and encouraging users to give back to the community from whose existing work they are already profiting, such spaces enable users to become productively active – that is, to become *produsers* – with relative ease. How much produsers do so – that is, the specific balance between usage and produsage which results – remains a matter of individual choice for each participant, subject to their specific personal cost/benefit calculations.

This difference between relatively unsophisticated understandings of users as grateful and gullible prosumers who contribute to 'Web 2.0' spaces whatever the personal cost, and the more complex picture described by produsage, determines the success or failure of many commercial attempts to embrace online communities as content creators. Simplistic "build it and they will come" approaches which treat the knowledge and enthusiasm of Web users for creating content as an unproblematic, sustainable resource to be exploited without repercussions will usually fail, sooner rather than later; more sensible approaches seek to understand and address potential motivations for users to become produsers of content, and to do so even if they know that the space they are encouraged to contribute to is operated also for commercial benefit. Schmidt & Loosen's work (in this issue) on the diverging "inclusion expectations" held by producers and audiences of journalistic content is instructive in this context.

This is, ultimately, a question of clear communication between corporate and community interests, between professional and amateur content contributors. Such communication is

usually best conducted through leading groups of Pro-Am contributors who are most easily able to bridge the interface between both sides; at this point of connection, differences between both sides are no longer determined by generic categories of 'professional' and 'amateur', in fact – since many professionals also do their work 'for the love of it', in the true meaning of the term 'amateur', and many high-level amateurs participate at professional standards of quality –, but simply by whether any one participant represents the interests of the commercial organisation or of the community. In many successful examples of corporate/community collaboration – in games design and development (e.g. Banks, 2002, 2009; Herz, 2005), knowledge management (e.g. Proulx *et al.*, 2011), technical innovation (e.g. von Hippel, 2005), or journalism (e.g. Bruns, 2010b) –, even these differences are increasingly blurred; such cases point to considerable mobility across the pro/am divide – company employees are also *bona fide* and *pro bono* participants in the community, leading community members are recognised and paid contributors in corporate projects. As Benkler describes it,

> the boundary of the firm becomes more porous. Participation in the discussions and governance of open source development projects creates new ambiguity as to where, in relation to what is "inside" and "outside" of the firm boundary, the social process is. In some cases, a firm may begin to provide utilities or platforms for the users whose outputs it then uses in its own products. … In these cases, the notion that there are discrete "suppliers" and "consumers," and that each of these is clearly demarcated from the other and outside of the set of stable relations that form the inside of the firm becomes somewhat attenuated. (2006: 125)

Reconciling Community and Commerce

The more commonplace such collaborations become, the more aligned communities and companies if not merge, then find a way to blend into each other at least around specific identified projects, the more does this begin to have an effect on overall economic structures. However, Benkler may be somewhat overenthusiastic when he suggests that through his "commons-based peer production",

> we are seeing the emergence of a new stage in the information economy, which I

call the "networked information economy." It is displacing the industrial information economy that typified information production from about the second half of the nineteenth century and throughout the twentieth century. What characterizes the networked information economy is that decentralized individual action — specifically, new and important cooperative and coordinate action carried out through radically distributed, nonmarket mechanisms that do not depend on proprietary strategies — plays a much greater role than it did, or could have, in the industrial information economy. (2006: 3)

Benkler's persistent distinction between "market" and "nonmarket" processes is misleading in this context: rather for its "radically distributed, nonmarket mechanisms", the networked information economy is more notable for the way in which nonmarket, community-driven, produsage processes can arrange themselves with, even *blend* with, more conventional market mechanisms in various contexts. Benkler himself notes remarkable changes to the "very nature of the boundary of the firm that those businesses that are already adapting to the presence and predicted persistence of social production are exhibiting", and suggests that "understanding the opportunities social production presents for businesses begins to outline how a stable social production system can coexist and develop a mutually reinforcing relationship with market-based organizations that adapt to and adopt, instead of fight, them" (2006: 123) – but it would be more productive to move our conceptualisation of emerging environments beyond a mere *coexistence* of social production systems and conventional market-based economy, and to explore potentials for both to be *integrated* into a more unified model where distinctions between market production and nonmarket produsage play only a subordinate role.

This may drive a gradual transition to a hybrid environment where production and produsage connect and combine (Bechmann, this issue, describes several potential models for this, in journalism). "The twentieth century was shaped by large hierarchical organisations with professionals at the top. Pro-Ams are creating new, distributed organisational models that will be innovative, adaptive and low-cost" (Leadbeater & Miller 2004: 12; also see Ostertag & Tuchman, this issue). If legacy organisations prove incapable of reform in the face of such changes, they are likely to suffer, but such suffering is not in the interests of produsage communities disrupting the *status quo*; few citizen journalists

contributing alternative, additional voices into the public sphere have an explicit desire to undermine and replace existing mainstream media, for example – rather, they aim to hold corporate media to account, to acknowledge and incorporate the contributions which non-journalists are able to make, to force them to lift their own standards of quality (see Lewis, this issue, on ideological factors behind quarrels between professional and citizen journalism). Produsage communities dealing with software, information, knowledge, or creative works, too, are likely to acknowledge their inability to replace institutional content production altogether, even if they wanted to. Cooperation and collaboration are necessary instead; similarly, by now, amongst professional groups

> the more enlightened will understand that knowledge is widely distributed, not controlled in a few ivory towers. The most powerful organisations will combine the know-how of professionals and amateurs to solve complex problems. That is true in astronomy, software development and online games. (Leadbeater & Miller 2004: 16)

This cooperation across pro/am divides is difficult, but made easier if the need for collaboration, and an understanding of what is at stake, is explicitly acknowledged on both sides. Companies must participate "without seeking to, or even seeming to seek to, take over the project; for to take over the project in order to steer it more 'predictably' toward the firm's needs is to kill the goose that lays the golden eggs" (Benkler 2006: 124). Communities must engage in the understanding that corporate partners aim to, and need to, generate revenue from their activities; if projects do not *also* address companies' needs, no cooperation is likely in the first place.

The potential for cooperation and collaboration is also determined in part by who owns and operates the online platform or space where engagement between community and company takes place. Operators are necessarily able to set rules and control processes of engagement, even though they may remain in the background rather than exerting an overt, explicit influence; whether operators are closely aligned with the community and its ideals or the company and its needs plays an important role. Here, more significant challenges exist in cases where platforms are operated by corporate interests: community-organised platforms tend to be relatively explicit about rules and conditions for participation, and intended processes for engagement, which apply to amateur and

professional participants alike; they tend to specify clearly their membership and content ownership conventions, and are often policed implicitly or explicitly through community self-regulation.

Corporate platforms are often more problematic: detailed terms and conditions statements may be readily available, but usually reflect formal legal requirements and are designed to protect companies from legal repercussions of community participation more than they are designed to enshrine key principles of constructive participation. This may also reflect internal production processes which still apply for such platforms and their operative parameters: often, their development may still be initiated by marketing departments, driven by technical teams, and advised by legal divisions, rather than strongly infused with the knowledge of community needs and interests that in-house Pro-Ams with existing informal connections to the community could contribute. More inclusive design processes, drawing on staff with community connections and on Pro-Ams in the wider community who are likely contribute to the planned corporately hosted space, are likely to generate more promising results. As Miller & Stuart point out, "the emphasis" should be "on facilitation, on creating conditions for group participation, rather than on providing comprehensive agendas and issuing detailed action plans" (n.d.: 2).

Designs of corporately developed, hosted, and operated spaces for pro/am collaboration between company staff and produsage communities, intended to generate mutual benefits, must necessarily seek to understand and reflect principles of produsage as outlined above, at least as much as they address business aims of the company itself. On the basis of the key principles of produsage we have discussed, the following four core requirements for produser/produser cooperation and collaboration can be formulated (cf. Bruns, 2010a):

1. **Shared Responsibility and Control**
   Neither side of the collaborative project can be allowed to own it outright – both must share responsibility for its continued existence, and control of its further development trajectory. This constitutes an acknowledgement by the community that the corporate side has its own rights and responsibilities.

2. **Mobility between Community and Corporation**

As noted, inherent immutable divisions and imbalances between producers and produsers provide a counterproductive hurdle to effective collaboration between production staff and produsage communities; they make it substantially more difficult for Pro-Am participants, who must be able to move between the two worlds with ease, to be effective mediators between both sides.

3. Redesign of Products as Evolving Artefacts

The outcomes of produsage must remain forever unfinished: a project which has achieved a level of accomplishment that leaves no further room for improvement has managed to negate any need for its continued existence. Commercial products, by contrast, are commodities marketed as 'finished', and further development begins what constitutes a new product line, rather incremental improvement (Windows 7 replaced Windows Vista replaced Windows XP replaced Windows 2000). Such disruptions to continuous development processes should be avoided: they risk the dissipation of the produsage community.

4. Acceptance of Non-Exclusive Corporate Use of Content

Corporate use of content jointly developed by the project is permissible, but such use must respect the co-ownership of the produsage community. As Pesce notes, *cui bono* must be considered throughout: corporate partners "must enter into a negotiated agreement with the members of the community which sets all ground rules for the use of community-generated content" (2006: n.p.). Corporations cannot expect exclusive rights to make commercial use of content created by the project; such participation capture turns the project's collaboration commons into a proprietary space. (Creative Commons and similar licence schemes are now readily available as legally enforcible extensions of standard copyright law, to balance tensions between the ownership and usage rights of communities and corporations – but in reality, they are better equipped to govern new content, placed under such licences *ab initio*, than legacy materials whose licence status may be difficult to change *a posteriori*.)

Conclusion: Towards the Information Commons?

Investment in corporately supported platforms without the benefit of gaining ownership of content which is created through them may appear counterintuitive to companies at first; for sustained, sustainable engagement with produsage communities it is a necessary condition of entry. Beyond necessity, too, there are good reasons to shift into this less controlled, less proprietary direction – research into innovation processes clearly indicates that exclusive corporate enclosure of information and knowledge is often counterproductive, and stifles rather than promotes innovation by restricting the potential for individual knowledges, and knowledge holders, to surreptitiously connect and generate new ideas (see esp. Chesbrough, 2006). Von Hippel highlights the benefits of more open knowledge exchange processes; he introduces the idea of "an information commons, a collection of information that is open to all on equal terms" (2005: 165).

Especially where high commercial stakes are involved, shifts towards open innovation models face substantial hurdles; faster-paced developments may be expected in sectors with a greater mix of government, NGO, commercial, and community stakeholders. Various national and local governments have already sought to encourage bottom-up and hybrid innovation processes by supporting 'Government 2.0' and 'open data' initiatives (see e.g. Government 2.0 Taskforce, 2009); such developments also take place in the context of a growing interest in exploring 'social innovation' processes: open innovation in pursuit of social change (cf. Murray *et al.*, 2010; Mulgan, 2011). Government agencies play an important role in driving these initiatives.

It may also be possible, then, that platforms through which communities and partner organisations connect are provided not by either of these stakeholders, but by relatively neutral third parties. Increasingly, social media also play the role of such third-party providers. For example, engagement between journalism industry institutions and the citizen journalism communities, and alternative news discussion outside the industry, increasingly takes place not on the Websites of mainstream news sources (the majority of which were never a welcoming space for news enthusiast communities, but simply provided an electronic version of letters to the editor), nor on the pages of citizen journalism sites and news blogs (where most mainstream journalists dare not tread), but in the neutral spaces of *Facebook* and – especially – *Twitter* (Bruns, 2011b). Here, discussion of daily news from headline stories to domain-specific information runs the gamut from random commenters to regular 'political junkies' (Coleman, 2003) and from notable individual

journalists to the corporate accounts of major news organisations; processes of curating information and organising multi-stakeholder engagement are developed *ad hoc* and over time by all participants (Bruns & Highfield, 2012). Similar tendencies exist in other specialist domains and disciplines; what social media provide is a shared and (superficially) neutral space to which barriers of entry are equally low for industry producers and community produsers. At the same time, both groups accept a new stakeholder in the process – the operator of the platform itself, who (like communities or corporations operating their own platforms) defines rules and processes for participation to some extent. Eventually, the role played by that operator may become just as critical or problematic as those of other stakeholders.

Other third-party platform operators may also be imagined; Coleman & Blumler envisage a 'Civic Commons 2.0' (see esp. 2009: 182ff.), which draws on arms'-length government support in analogy to indirect funding for public service broadcasting to provide a public space for e-government and e-democracy activities undertaken in the spirit of key produsage principles; Bruns & Swift (2010) build on this to outline a 'g4c2c' model that combines elements of government-to-citizen (g2c) and citizen-to-citizen (c2c) democratic engagement to establish a "government support for citizen-to-citizen engagement" process. Here, too, the role of governmental stakeholders is far from neutral and unproblematic – whatever form such g4c2c support may take in practice, it affects scope and nature of what cooperative activities involving citizens and other civic stakeholders are possible in this space. These are organisational rather than simply technological challenges, as Allan points out: existing "'solutions' often go little further than adding a new technology layer onto existing political and social processes. Less thought has been given to examining the ways in which new technology may fundamentally and irrevocably change the nature of the very processes of political and social interaction" (2003: xi).

Jenkins adds to this call for more than just technological attempts to address the challenge of reconciling community and commercial partners, and stresses the urgency of moving beyond stale models of interconnection which do little to generate new protocols of cooperation and collaboration: "the key battles [in the emerging convergence culture] are being fought now. If we focus on the technology, the battle will be lost before we even begin to fight. We need to confront the social, cultural, and political protocols that surround the technology and define how it will get used" (2006: 212). Indeed, these protocols do not

simply 'surround' technology: technology merely *supports* forms of personal and organisational engagement, information and knowledge exchange which these protocols enable and govern; technology plays a part, and enshrines protocols in code and hardware, but constitutes only one of several components of the overall system.

By contrast, it becomes all the more important to thoroughly understand the specific social processes of collaboration within and between different community and organisational stakeholders which an information commons-based collaborative model would connect. This task has already started in specific industries (software development, journalism, and knowledge management, for example), but in truth extends broadly across most parts of society, and has potential to affect all. Benkler suggests that "the winners would be a combination of the widely diffuse population of individuals around the globe and the … toolmakers and platform providers who supply these newly capable individuals with the context for participating in the networked information economy" (2006: 380) – but the development of smarter models for direct corporate engagement with community interests, beyond simplistic and exploitative prosumption models, also holds substantial, tangible benefit for companies which choose to pursue it in their specific industries.

References

Allan, Richard. (2003) Foreword: Dancing to a New Tune. *The e-Connected World: Risks and Opportunities*. Ed. Stephen Coleman. Montreal: McGill-Queen's University Press. xi—xii.

Andersen, Michael. (2009) Four Crowdsourcing Lessons from the Guardian's (Spectacular) Expenses-Scandal Experiment. *Nieman Journalism Lab* 23 June 2009. http://www.niemanlab.org/2009/06/four-crowdsourcing-lessons-from-the-guardians-spectacular-expenses-scandal-experiment/, accessed 29 Sep. 2011.

Banks, John. (2002) Gamers as Co-Creators: Enlisting the Virtual Audience – A Report from the Net Face. *Mobilising the Audience*, eds. Mark Balnaves, Tom O'Regan, and Jason Sternberg. Brisbane: University of Queensland Press. 188-212.

———. (2009) Co-Creative Expertise: Auran Games and Fury – A Case Study. *Media International Australia* 130: 77-89.

Bauwens, Michel. (2005) Peer to Peer and Human Evolution. *Integral Visioning* 15 June 2005. http://integralvisioning.org/article.php?story=p2ptheory1, accessed 1 Mar. 2007.

Baym, Nancy K. (2000) *Tune In, Log On: Soaps, Fandom, and Online Community*. Thousand Oaks, Calif.: Sage.

Benkler, Yochai. (2006) *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale University Press.

Bruns, Axel. (2008) *Blogs, Wikipedia, Second Life and Beyond: From Production to Produsage*. New York: Peter Lang.

———. (2008b) "The Active Audience: Transforming Journalism from Gatekeeping to Gatewatching." In Making Online News: The Ethnography of New Media Production. Eds. Chris Paterson and David Domingo. New York: Peter Lang, 2008.

———. (2010a) Exploring the Pro-Am Interface between Production and Produsage. Paper presented at The Internet Turning 40: The Never-Ending Novelty of New Media Research? conference, Hong Kong, 17-19 June 2010. http://snurb.info/files/2010/Exploring%20the%20Pro-Am%20Interface%20between%20Production%20and%20Produsage.pdf, accessed 9 Oct. 2011.

———. (2010b) Citizen Journalism and Everyday Life: A Case Study of Germany's *myHeimat.de*. *Journalists, Sources, and Credibility: New Perspectives*, eds. Bob Franklin and Matt Carlson. London: Routledge. 182-194.

———. (2011a) *Ad Hoc* Innovation by Users of Social Networks: The Case of *Twitter*. Paper presented at the Challenge Social Innovation conference, Vienna, 19-21 Sep. 2011. http://snurb.info/files/2011/Ad%20Hoc%20Innovation%20by%20Users%20of%20Soci al%20Networks.pdf, accessed 9 Oct. 2011.

———. (2011b) Gatekeeping, Gatewatching, Real-Time Feedback: New Challenges for Journalism. Keynote presented at the SBPJor conference, Rio de Janeiro, 4 Nov. 2011. http://snurb.info/files/2011/Gatekeeping,%20Gatewatching,%20Real-Time%20Feedback.pdf, accessed 9 Oct. 2011.

———, and Tim Highfield. (2012) Blogs, Twitter, and Breaking News: The Produsage of Citizen Journalism. Producing Theory: The Intersection of Audiences and Production in a Digital World, ed. Rebecca Ann Lind. New York: Peter Lang.

———, and Adam Swift. (2010) g4c2c: Enabling Citizen Engagement at Arms' Length from Government. *EDEM 2010: Proceedings of the 4th International Conference on E-Democracy, Krems, Austria, 6-7 May 2010*, eds. Peter Parycek and Alexander Prosser. Krems, Austria: Österreichische Computer Gesellschaft.

Burns, Alex. (2010) Oblique Strategies for Ambient Journalism. *M/C Journal* 13(2). http://journal.media-culture.org.au/index.php/mcjournal/article/view/230, accessed 1 Aug. 2011.

Chesbrough, Henry. (2006) Open Innovation: The New Imperative for Creating and Profiting from Technology. Boston: Harvard Business School Press.

Coleman, Stephen. (2003) A Tale of Two Houses: The House of Commons, the Big Brother House and the People at Home. *Parliamentary Affairs* 56(4): 733-58.

———, and Jay Blumler. (2009) *The Internet and Democratic Citizenship: Theory, Practice and Policy*. Cambridge: Cambridge University Press.

De Paoli, Stefano, and Cristiano Storni. (2011) Produsage in Hybrid Networks: Sociotechnical Skills in the Case of Arduino. *New Review of Hypermedia and Multimedia* 17(1): 31-52.

Dickerson, Chad. (2004) The Google Way: A Few Key Words of Advice for Those in Search of IT Management Guidance. *InfoWorld* 20 Feb. 2004. http://www.infoworld.com/t/business/google-way-790, accessed 9 Oct. 2011.

Government 2.0 Taskforce. (2009) *Engage: Getting On with Government 2.0*. Canberra: Australian Government Information Management Office.

Hebdige, Dick. *Subculture: The Meaning of Style*. London: Methuen, 1979.

Hermida, Alfred. (2010) From TV to Twitter: How Ambient News became Ambient Journalism. *M/C Journal* 13(2). http://journal.media-culture.org.au/index.php/mcjournal/article/view/220, accessed 1 Aug. 2011.

Herz, JC. (2005) Harnessing the Hive. *Creative Industries*, ed. John Hartley. Malden, Mass.: Blackwell, pp. 327-341.

Jenkins, Henry. (2006) *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press.

Kanefsky, B., N. G. Barlow, and V. C. Gulick. Can Distributed Volunteers Accomplish Massive Data Analysis Tasks? Paper presented at the 32nd Annual Lunar and Planetary Science Conference, Houston, 12-16 Mar. 2001. http://www.lpi.usra.edu/meetings/lpsc2001/pdf/1272.pdf, accessed 30 Dec. 2011.

Lakoff, George, and Mark Johnson. (1980) *Metaphors We Live By*. Chicago: U of Chicago P.

Leadbeater, Charles, and Paul Miller. (2004) The Pro-Am Revolution: How Enthusiasts Are Changing Our Economy and Society. *Demos*. http://www.demos.co.uk/publications/proameconomy/, accessed 25 Jan 2007.

Lévy, Pierre. (1997) *Collective Intelligence: Mankind's Emerging World in Cyberspace*. Trans. Robert Bononno. Cambridge, Mass. Perseus.

Lih, Andrew. (2009) *The Wikipedia Revolution: How a Bunch of Nobodies Created the World's Greatest Encyclopedia*. New York: Hyperion.

Lin, Yu-Wei. (2011) A Qualitative Enquiry into OpenStreetMap Making. *New Review of Hypermedia and Multimedia* 17(1): 53-72.

McCarthy, Caroline. (2007) Rough Seas Nearly Sink Facebook's Beacon. *CNet News*, 30 Nov. 2007. http://news.cnet.com/8301-13577_3-9826664-36.html, accessed 9 Oct. 2011.

Miller, Jed, and Rob Stuart. (n.d.) Network-Centric Thinking: The Internet's Challenge to Ego-Centric Institutions. *PlaNetwork Journal: Source Code for Global Citizenship*. http://journal.planetwork.net/article.php?lab=miller0704, accessed 14 Mar 2007.

Mulgan, Geoff. (2011) "Theoretical Foundations of Social Innovation: Sources, Possible Conclusions and Future Directions." Plenary presentation at Challenge Social Innovation, Vienna, 19-21 Sep. 2011.

Murray, Robin, Julie Caulier-Grice, and Geoff Mulgan. (2010) *The Open Book of Social Innovation*. London: The Young Foundation. http://www.youngfoundation.org/files/images/Open_Book_of_Social_Innovation.pdf, accessed 22 Dec. 2011.

Parycek, Peter, and Michael Sachs. (2009) "Web 2.0 as Base for Democracy 2.0." *Proceedings of EDEM 2009 – Conference on Electronic Democracy 2009*, Vienna, 7-8 Sep. 2009. Eds. Alexander Prosser and Peter Parycek. Vienna: Österreichische Computer Gesellschaft. 27-36.

Pesce, Mark. (2006) Qui Bono? [sic] *Hyperpeople: What Happens after We're All Connected?* 11 Nov. 2006. http://blog.futurestreetconsulting.com/?p=24, accessed 20 Feb 2007.

Proulx, Serge, Lorna Heaton, Mary Jane Kwok Choon, and Mélanie Millette. (2011) Paradoxical Empowerment of Produsers in the Context of Informational Capitalism. *New Review of Hypermedia and Multimedia* 17(1): 9-30.

Quiggin, John. (2006) Blogs, Wikis, and Creative Innovation. *International Journal of Cultural Studies* 9(4): 481-96.

Raymond, Eric S. (2000) The Cathedral and the Bazaar. 2000. http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/index.html, accessed 16 Mar 2007.

Reddick, Christopher, ed. (2010) *Politics, Democracy and E-Government: Participation and Service Delivery*. Hershey, PA: IGI Global.

Rheingold, Howard (1993) *Virtual Community: Homesteading on the Electronic Frontier*. Boston: Addison-Wesley.

Shirky, Clay. (1999a) RIP the Consumer, 1900-1999. *Clay Shirky's Writings about the Internet: Economics & Culture, Media & Community, Open Source* 1999. http://www.shirky.com/writings/consumer.html, accessed 24 Feb 2007.

———. (1999b) The Interest Horizons and the Limits of Software Love. *Clay Shirky's Writings about the Internet: Economics & Culture, Media & Community, Open Source* Feb. 1999. http://www.shirky.com/writings/interest.html, accessed 24 Feb 2007.

Toffler, Alvin. (1970) *Future Shock*. New York: Random House.

———. (1980) *The Third Wave*. New York: Bantam.

———. (1990) *Powershift: Knowledge, Wealth, and Violence at the Edge of the 21st Century*. New York: Bantam.

Trendwatching.com. (2005) Generation C.

      http://www.trendwatching.com/trends/GENERATION_C.htm, accessed 18 Feb 2007.

Vickery, Graham, and Sacha Wunsch-Vincent. (2007) Participative Web and User-Created

      Content: Web 2.0, Wikis and Social Networking. Paris: Organisation for Economic Co-

      operation and Development. http://www.sourceoecd.org/scienceIT/9789264037465,

      accessed 9 Apr. 2010.

Von Hippel, Eric. (2005) *Democratizing Innovation*. Cambridge, Mass. MIT Press.

Westlund, Oscar. (2012) Producer-Centric vs. Participation-Centric: On the Shaping of

      Mobile Media. *Northern Lights*, vol. 10.