

Exploring the Pro-Am Interface between Production and Prodsusage

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Introducing Prodsusage

This conference celebrates the passing of 40 years since the establishment of the Internet (dating this, presumably, to the first connection between two nodes on ARPANET in October 1969). For a gathering of media scholars such as this, however, it may be just as important not only to mark the first testing of the core technologies upon which much of our present-day Net continues to build, but also to reflect on another recent milestone: the 20th anniversary of what is today arguably the chief interface through which billions around the world access and experience the Internet – the World Wide Web, launched by Tim Berners-Lee in 1989.

That amongst so much rapid socio-technological development over the past 20 years we should have advanced only to version 2.0 of the Web clearly indicates the arbitrary nature of the Web 2.0 moniker, of course – but what is true is that there are substantial differences between the Web of today and the Web as a handful of CERN scientists would have experienced it back in the day – Benkler, for example, goes so far as to envision

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. (2006: 2)

That rhetoric of freedom and advancement is by now familiar and may be questioned, but what is evident is the significant take-up of participatory options provided by ‘Web 2.0’ technologies: *Facebook* claims to have accumulated more than 400 million users; *Twitter* grew four-fold in 2009; and Australians appear to be leading the world by (on average) spending nearly seven hours on social networking sites per month (NielsenWire, 2010). Such use is more than simply phatic, too – Web 2.0 technologies and social media processes are utilised to build and maintain new initiatives from citizen journalism sites to the *Wikipedia* to *Flickr*, *YouTube*, and *ccMixter*, and are utilised by major organisations to complement, extent, and organise their content collections. The participation patterns of *Amazon* users are evaluated to help make better sense of the vast collection of items which are available for sale on the site, and the *Google* index itself constitutes the ultimate (if unwitting) social media project, compiled as it is from the activities of millions of Web publishers linking to one another, and from *Google* users’ searching and browsing patterns.

Benkler describes this as “commons-based peer production”, and suggests 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). While it would be difficult to argue the fundamental point that what a recent OECD report described as “the participative Web” (Vickery & Wunsch-Vincent, 2007) has well and truly arrived, what also becomes evident from Benkler’s description is that the language we use to describe these phenomena has barely kept up. Neither is it likely that most users of *Google* or *Amazon* would be particularly likely to regard

those spaces as commons in Benkler's sense, nor do they consciously act as 'producers'; to most of them, the fact that their mere *usage* of these sites has productive effects and outcomes and ultimately and in connection with that of others creates new content may remain wholly unnoticed.

What matters most in the case of harnessing the users of *Google* and *Amazon* – but also those of *Facebook*, *Twitter*, *Wikipedia*, *YouTube*, and any number of other Web 2.0 sites – to contribute to the creation and curation of content is that the steps from mere usage to productive contribution are made as granular as possible (cf. von Hippel, 2005), easing the transition from passive to active participation. *Wikipedia* users, for example, may contribute as little as a correction for a spelling error, or as much as the content stub for an entirely new article, with a sliding scale of other possible participation options in between; *Twitter* users may only post random 140-character updates, but as they discover @-replies and especially hashtags, they begin to contribute to a vast collaborative and continuous curation of the *Twitter* community's collective consciousness.

Common to these sites, then, is that in practice as well as in rhetoric they tend not to interpellate their current and potential participants explicitly as content *producers* (even, *pace* Benkler, as 'peer producers') but place them instead in a hybrid role somewhere between user and producer, which I have described as that of a *produser* (Bruns, 2008). All participants in these sites *are* users, of course, but they are actively encouraged to participate in ways which are productive of new content in a way that benefits the site's agenda, even if such participation need never transform into outright production in a more conventional sense. Indeed, this shift towards *produsage* – the collaborative and continuous building and extending of existing content in pursuit of further improvement – perpetuates an ongoing erosion between the formerly distinct roles of producer, distributor, and consumer; an erosion for which, at least in the media and creative industries, the establishment of Internet and Web as widely available two-way media forms have been partly responsible: the linear and unidirectional communication streams in broadcast and print publication have been thoroughly disrupted by these digital media, and the industries which this change affects are stills struggling to catch up with these changes. (This is also powerfully demonstrated by the current fetishisation of Apple's iPad device as the supposed saviour of, variously, the newspaper, music, and film industries.)

Four key principles of produsage-based content creation models – in counterdistinction to conventional content production – can be readily identified (Bruns, 2008):

1. Open Participation, Communal Evaluation

A produsage approach assumes that quality control and improvement are probabilistic rather than linear: the assumption within the produsage community is 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 (an extension of open source's motto "given enough eyeballs, all bugs are shallow"). Such contributions may be major or minor, substantial or insubstantial, take the form of useful content or the form of social engagement in or administrative services to the community, but they are nonetheless all valuable to the overall project. Participation in produsage, therefore, must be invited from as wide a range of potential contributors as possible, and produsage environments are generally open to all comers. Produsage, in other words, is based on a principle of inclusivity, not exclusivity.

2. Fluid Heterarchy, Ad Hoc Meritocracy

Produsage necessarily proceeds from a principle of what Michel Bauwens describes as equipotentiality (Bauwens, 2005): the assumption that while the skills and abilities of all participants in the produsage project are not equal, they have an equal ability to make a worthy contribution to the project. This approach, which allows project leaders to emerge from the community based on the quality of their contributions, necessarily departs from traditional, hierarchical organisational models. Further, basing the standing of contributors in the community on the quality of their contributions also implies that such standing can decline again as their contributions diminish (for example once a specific problem encountered in the produsage process has been solved to general satisfaction); the structure

of the produsage community is therefore not only organised along networked, non-hierarchical lines, but also remains in constant flux. Finally, in line with the granularity of problems on which produsage depends, the community's ability to organise its content creation and problem-solving activities along such fluid, flexible lines also relies on its ability to make progress working as individuals or in small teams of producers, rather than requiring whole-of-community decisions at every step of the process.

3. Unfinished Artefacts, Continuing Process

As content development embraces a probabilistic model, as participant involvement becomes equipotential and fluid, as projects are deconstructed to form granular, modular tasks inviting and harnessing even small contributions from casual members of the produsage community, and as the collaboratively produced content is shared in an openly accessible information commons, the process of produsage must necessarily remain continually unfinished, and infinitely continuing. Produsage does not work towards the completion of products (for distribution to end users or consumers); instead, it is engaged in an iterative, evolutionary process 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. Such gradual, probabilistic processes do not ensure against temporary reductions in quality as poor-quality contributions are made by individual producers, but over time the shared community resource is expected to improve in quality as long as such negative contributions are outweighed by the impact of a larger number of positive contributions.

4. Common Property, Individual Rewards

The communal produsage of content in an information commons necessarily builds on the assumption that content created in this process will continue to be available to all future participants just as it was available to those participants who have already made contributions. Any attempt by individuals within or beyond the community, by community leaders, or by commercial entities outside of the community to capitalise on the content of the information commons beyond what is seen to be legitimate under the rules of the community must therefore be avoided; such rules (as enshrined in a variety of moral and legal documents including the GNU General Public License and Free Documentation License, the Open Source License, and the Creative Commons licence framework) commonly stipulate, for example, that community-held content must remain freely available, that modifications of such content must be made available once again under similar conditions, and that the contributions of individual producers to the shared project must be recognised and (where appropriate) rewarded. Although content is held communally, therefore, producers are able to gain personal merit from their individual contributions, and such individual rewards finally are a further strong motivation for participation in produsage communities and projects.

These principles date back at least to the communal practices established in the open source community, and are therefore in turn influenced by those practices in collaborative research and development groups by which open source itself was influenced; it may also be possible to see them as an echo of certain pre-digital, pre-industrial practices in geographically local communities, however. At the same time, they also remain clearly present in the latest of new media technologies and phenomena – despite its commercial layers, for example, even a mobile social media application such as *Foursquare* ultimately embeds these principles in a bid to attract users to its services.

Benkler expects “social production and exchange to play a much larger role, alongside property- and market-based production, than they ever have in modern democracies” (2006: 3), and indeed social media and produsage processes are already impacting significantly especially on the media and creative industries; forecaster *Trendwatching.com* even presages what it describes as “Casual Collapse: the ongoing demise of many beliefs, rituals, formal requirements and laws modern societies have held dear, which continue to ‘collapse’ without causing the apocalyptic aftermath often predicted by conservative minds” (2005, n.p.). But the net impact is hardly all negative – the creative destruction which these new processes do contribute to is also a source of substantial innovation and provides new avenues for intellectual and commercial endeavour.

The success of open source software itself provides perhaps the most significant example for now, with *Wikipedia* as close second, but collaborative and crowdsourced produsage projects can be found across a wide range of applications; indeed, NASA's *Clickworkers* project has even enabled produsage participants to take their activities to another planet.

In keeping with *Trendwatching's* prediction, this may point to a need for us to rethink many more fundamental assumptions; from an economic perspective, for example, Quiggin notes that "standard assumptions about the competitive nature of innovation are ... undersupported in the new environment. 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). Indeed, *Lévy* suggests that "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: xxvi-ii).

Current developments in Web 2.0, aiming to provide ever larger groups of users to form and act as communities and to develop and curate – in conscious collaboration or simply through their individual contributions to a shared common space – their collective knowledge, are clearly taking the first steps towards such goals. The principles and processes of produsage provide a crucial foundation for this: "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" (Jenkins, 2006: 54).

Produsage and Business

But *because* of their potential, because, as *Lévy* foresees, they "could radically transform the fundamental data of social life" (1997: xxviii), of society itself, these processes are too important to be classified as social, spare-time activities alone. We "need to distinguish more carefully between serious and casual, active and passive, forms of leisure", as Leadbeater & Miller (2004: 21) put it, which – though this may seem paradoxical at first glance – requires us to question conventional distinctions between the private and the public, the personal and the professional. Most contributors to produsage projects from open source to *Wikipedia* – and well beyond – are not 'professionals' in the institutionally recognised sense of the word, and yet they sometimes operate on what equates to a professional level; as Leadbeater & Miller show in their study of 'professional amateurs', these "Pro-Ams" can be said to "work at their leisure, regard consumption as a productive activity and set professional standards to judge their amateur efforts" (2004: 23); indeed,

Pro-Am leisure is a very serious activity involving training, rehearsal, competition and grading, and so also frustration, sacrifice, anxiety and tenacity. Pro-Ams report being absorbed in their activities, which yield intense experiences of creativity and selfexpression. Pro-Am activities seem to provide people with psychic recuperation from – and an alternative to – work that is often seen as drudgery. Leisure is often regarded as a zone of freedom and spontaneity, which contrasts with the necessity of work. Yet much Pro-Am activity is also characterised by a sense of obligation and necessity. Pro-Ams talk of their activities as compulsions. (2004: 21)

Not least, these Pro-Ams – within a produsage framework, often equivalent to the most active participants and community leaders in produsage projects – provide an obvious conduit for the development of connections and partnerships between the wider user community and corporate and other institutions wishing to engage with it. Such engagement is being attempted across virtually all of the domains now touched by Web 2.0, social media, and produsage phenomena, but in many cases – outside of Net-native organisations like *Google*, *Amazon*, or *Facebook* – remains relatively simplistic so far; it is often characterised by little more than the establishment of a poorly-maintained corporate blog or the addition of ill-conceived 'community' features (commenting facilities for online newspaper articles, reader feedback in the *Encyclopædia Britannica*). Such approaches tend to ignore the basic tenets of social media produsage as

processes that rely on a sense of *community* rather than merely on the ability for individual audience members to contribute their opinions and ideas – Clay Shirky’s much-cited observations about the differences between audiences and communities still continue to hold:

Communities are different than [*sic*] audiences in fundamental human ways, not merely technological ones. You cannot simply transform an audience into a community with technology Though both are held together in some way by communication, an audience is typified by a one-way relationship between sender and receiver, and by the disconnection of its members from one another – a one-to-many pattern. In a community, by contrast, people typically send and receive messages, and the members of a community are connected to one another, not just to some central outlet – a many-to-many pattern. (2003: n.p.)

Organisations which do manage to engage effectively with social media do so by removing at least the *appearance* of a high level of disproportionality in the power relations between individual contributors and the organisation itself, and by allowing their user communities to *be or become* communities in the full sense of the word; harnessing those participants and community leaders whose work operates on a Pro-Am level becomes a key strategy in this process. Such embracing of communities by corporate interests is by no means always desirable or equally beneficial for both parties, of course: providing a space to harbour a social media community may easily turn into hijacking it for the company’s own interests. *Facebook*’s user community is now largely captive to the company, for example, since for most users the costs of switching to another social network still significantly outweigh those of continuing to live under the site’s highly dubious Terms of Service; Google’s flawed and controversial automatic rollout of *Buzz* to the *Gmail* community was possible only because *Gmail* users are similarly captive to that service.

Additionally, the harvesting of produsage participation as a form of free user labour has been rightly highlighted by a number of authors questioning the power relations in joint corporate/community produsage projects; tendencies to increasingly use crowdsourcing – which in our present terminology we might consider to be an impoverished form of produsage – to develop business solutions have been critiqued in scholarly work, but except for some of the most egregious attempts to exploit participants without appropriate compensation or remuneration the practice continues. (Bello, 2009, provides an insightful and entertaining account of the lengths to which Amazon’s *Mechanical Turk* community has gone to subvert and game its crowdsourcing system, however.)

Importantly, such short-term exploitation of user interest in cooperating with corporate and other institutions and contributing to the development of new solutions and new ideas undermines the longer-term potential for crowdsourcing, social media, and produsage approaches to drive the development of collective knowledge and collective intelligence as Lévy, Benkler, Jenkins and others have outlined it. A reliance only on corporate frameworks, on “professionals”, creates “a distribution bottleneck. That is why many of the most imaginative social innovations in the developing world employ Pro-Am forms of organisation”, as Leadbeater & Miller point out (2004: 11), but this is just as true for innovative processes in developed nations, especially where they are tackling complex problems. For participant enthusiasm for such produsage-based, collaborative innovation projects to be thwarted by heavy-handed exploitation of their outcomes by self-interested parties would constitute a textbook example of a tragedy of the commons, and if what is at stake in this conflict is seen to be valuable, it becomes necessary to push back strongly against such attempts to exploit the community.

In these developments, which can in many ways be understood as the teething problems of the emerging network economy, Bauwens sees the genesis of a new form of corporate enterprise, which he describes as the netarchist firm. As he puts it,

for these firms, accumulating knowledge assets is not crucial, owning patents is not crucial. ... They do not have a monopoly on [content], as in the mass media age. Rather they are ‘acceptable’ intermediaries for the actors of ... participatory culture. They exploit the economy of attention of the networks, even as they enable it. They are crucially dependent

on the trust of the user communities. Yes, as private for-profit companies they try to rig the game, but they can only get away with so much, because, if they lose the trust, users would leave in droves, as we have seen in the extraordinary volatility of the search engine market before Google's dominance. Such companies reflect a deeper change [in] the general practices of business, which is increasingly being re-organized around participatory customer cultures. (2005: 2)

The problems which are highlighted by the continuing debates about Google, Amazon, Facebook, and just about any other major site and company that draws on and/or exploits user participation for its own purposes, then, are caused by corporations' as well as users' efforts to reposition themselves in relation to each other within a changed and still changing economic, intellectual, and technological environment.

Put positively, what is required to move beyond the current cycle of accusations and recriminations is the development of long-term sustainable models for the engagement between the institutions and communities involved in produsage processes, drawing on the Pro-Ams as a crucial point of connection between the two sides. Such more ethically sound models of collaboration, which respect the interests of all participants, are both likely to continue to operate for a longer period of time, and to produce better-quality outcomes for community and corporate partners alike.

Again, however, a fundamental requirement for the development of such models is to rethink from the ground up the description of its participants using various established terms. Even many well-meaning approaches to connecting professional content and knowledge producers on the one side and the communities which engage with and respond to their work on the other side continue to accept conventional producer/audience distinctions (even if that audience is now perhaps described as an 'active' one), ignoring Shirky's warning about the substantial differences between audiences and communities as we have encountered it above; others still think in terms of producers and consumers, and have at best repositioned the latter as 'prosumers', building on Alvin Toffler's work.

The latter conceptualisation is particularly insidious, in fact, as – despite popular perception – in Toffler's own work the prosumer is anything but the active, content-creating, self-directed individual whom we may encounter in a produsage community. Instead, at best the term 'prosumer' may describe a 'professional consumer' who has a relatively high-level of knowledge about the products they consume (for instance, a hi-fi enthusiast, or a devoted fan of a niche cultural genre) but who nonetheless merely *consumes* commercial products rather than actively contributing their own ideas. Understood in this sense, the prosumer has virtually no connection with the active content creator of produsage; their role remains what Shirky has eloquently described as that of "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" (1999: n.p.).

A potentially more sinister version of the prosumer emerges, however, in Toffler's work during the 1980s and 1990s, where he describes prosumption as "the willing seduction of the consumer into production" (1980: 275). He envisages that

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." (1990: 239)

Though supposedly 'reunited', however, it becomes very clear that this 'cycle of wealth creation' benefits chiefly the commercial producers (whose identities, contrary to those of the consumers, do not blend into the prosumer hybrid). Indeed, what ultimately results is simply a "customer-activated manufacturing system" in which the prosumer is quite literally envisaged to assume the position of cheap, unskilled labour:

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)

One explanation for the recently renewed popularity of the prosumer idea, then, may be that it seems to describe almost exactly the positioning of users as cheap and infinitely disposable contributors of new ideas that is characteristic of the short-term, exploitative models for crowdsourcing and online engagement which contribute to the tragedy of the social media commons.

Where it legitimises such participant exploitation, then, the prosumption concept must be critiqued and challenged. At the same time, in attempting to respond to and dismantle conventional producer/consumer dichotomies, authors like Shirky occasionally overreach, too: statements that “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” (1999: n.p.) similarly fail to recognise the full breadth of participation forms from mere consumption and usage through to progressively more active forms of produsage and on to fully-formed Pro-Am activity – and beyond this, on the organised, industrial side of production, continuing the continuum from new, innovative models of working with communities in the development of ideas and content through to the more conventional approaches of production and distribution which companies have inherited from the mass media and industrial age.

What these observations point to, then, is that far from constituting mere sophistry or definitional meta-debate, discussions over the correct way to define and describe the different ways in which users and user communities engage with one another and with corporate and other institutions have a profound effect on researchers’ as well as stakeholders’ understanding of the range of possibilities for collective action, intelligence, and knowledge which such new collaborative models open up. Production, usage, consumption, prosumption, and produsage; audience and community; professional and amateur; public and private; these and many more of the related terms which are utilised to describe the complex processes of participation and collaboration which unfold across the spaces of Web 2.0 deserve a more precise definition than they have commonly received in much of the scholarly, industry, and popular literature in which they have appeared. This has been one reason, of course, to introduce the concept of *produsage* (Bruns, 2008) as an alternative to the highly problematic ‘prosumption’, as well as to other concepts which fail to adequately distinguish themselves from existing models; similarly, Leadbeater & Miller make this argument very clearly for their ‘Pro-Am’ concept:

Pro-Ams 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. We use a variety of terms – many derogatory, none satisfactory – to describe what people do with their serious leisure time: nerds, geeks, anoraks, enthusiasts, hackers, men in their sheds. Our research suggests the best way to cover all the activities covered by these terms is to call the people involved Pro-Ams. (2004: 20)

Rethinking the Pro-Am Interface

Further, beyond the definitions themselves, the question remains what new models may be explored that connect industry production and community produsage via the crucial link of Pro-Am lead users in a sustainable and mutually beneficial way. The challenge here is to reconceptualise the interface between professional and non-professional content creators, between people creating content as part of their paid job (‘professionals’, in conventional terms) and people creating content for the love of it (‘amateurs’, in the original sense of the word). As Raymond reports from the realms of open source software development, the benefits from finding workable solutions can be substantial: “treating your users as co-developers is your least-hassle route to rapid code improvement and effective debugging” (2000, n.p.).

Perhaps most crucially, this is also a question of organisational structures, of course – on either side of the Pro/Am equation. While Leadbeater & Miller are correct to identify Pro-Ams as a special class of

participant in its own right, at the same time it is also true that Pro-Ams may emerge to that position both as leading participants out of the wider produsage community, and as especially community-minded professionals out of corporate staff. The corporate equivalent to the community's lead users may be positioned as 'community managers' or 'community animators', but such terms fail to capture the exact nature of their role – at the interface between industrial and citizen journalism, for example, they may be best described as producer/editors or 'preditors', as Wilson *et al.* (2009) argue, and must be almost equally part of the news organisation and of the community.

What emerges here, then, is the need for a structural continuum across corporate organisation and participant community – a continuum in which those parts of the enterprise which engage most closely with the community take on some of the key aspects of produsage (such as a softening of hierarchies, a self-directed approach to participant activities, and communal rather than managerial evaluation of outcomes), while their points of most immediate contact on the community side similarly adopt somewhat more production-style models (visible for example in the formation of clearer heterarchical – if not quite hierarchical – structures of organisation and a more goal-oriented direction of produsage efforts towards the achievement of project milestones).

This may also enable a greater level of mobility of personnel and ideas across the Pro/Am line – predominantly perhaps in the form of Pro-Am contributors themselves, who may variously find at least temporary paid employment with the organisation before returning back to the community proper. As Benkler describes it by drawing on the open source experience,

as the companies that adopt this strategic reorientation become more integrated into the peer-production process itself, 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)

In the first place, this is a challenge for corporations, which for the most part have been habituated into thinking of themselves as distinct entities whose inner workings and development processes are protected by non-disclosure agreements and a thicket of patent and copyright claims. As von Hippel notes, however, such overly defensive secrecy and protectiveness is a relatively recent phenomenon; indeed, while much has been made of the contrast between the open source model of *Linux*, *Firefox*, and other major projects and the tightly protected closed source codes of Microsoft and other major software companies, the "free revealing of product innovations has a history that began long before the advent of open source software" (2005: 9-10). As he describes it,

Innovators often freely reveal because it is often the best or the only practical option available to them. Hiding an innovation as a trade secret is unlikely to be successful for long: too many generally know similar things, and some holders of the "secret" information stand to lose little or nothing by freely revealing what they know. ... Active efforts by innovators to freely reveal — as opposed to sullen acceptance — are explicable because free revealing can provide innovators with significant private benefits as well as losses or risks of loss. (2005: 10)

A further step towards developing a Pro/Am collaboration model which benefits both sides is to identify more clearly what the needs of either side are, and what contributions each is best able to make. Here, it appears to be most likely that "need-intensive tasks within product-development projects will tend to be done by users, while solution-intensive ones will tend to be done by manufacturers" (von Hippel, 2005: 72) – in other words, on average produser communities are likely to be more adept at identifying new needs and

exploring possible solutions which may address such problems, while professional producers will be better at improving known solutions that address existing needs. Unchecked, these differing orientations (towards radical and incremental innovation, respectively) are likely to cause conflict between the two sides, as community members may fail to detect appreciable progress in the joint project on the corporate side, while professional staff may be overwhelmed by the level of blue-sky proposals made by the community at a time when many existing problems remain unsolved. Again, then, Pro-Am participants operating at the interface between the two sides will be crucial as mediators who manage each side's expectations of the other and are able to translate between corporate and community language. For this role, they are uniquely equipped:

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. (Leadbeater & Miller, 2004: 20)

The positioning of these Pro-Am participants as equally – and indeed, simultaneously – ‘professional’ and ‘amateur’ also provides an important alternative (or at least, modification) for Benkler’s framework in *The Wealth of Networks*, which tends to draw a relatively strict distinction between ‘market’ and ‘nonmarket’ activities. As he describes it,

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)

If – as seems to be implied here – market and nonmarket, proprietary and nonproprietary, are understood to be mutually exclusive attributes, however, then the model becomes overly formulaic, and no longer has the flexibility required to describe the activities, in particular, of the Pro-Ams who are equally at home in market *and* nonmarket contexts. Beyond mere distinctions between the two areas, which must eventually result in a description of the networked information economy as a two-track system with proprietary and nonproprietary activities running in parallel to one another, our challenge appears to be instead to turn ‘market’ and ‘nonmarket’ from binary opposites to quantifiable variables: in other words, to describe a system in which market and nonmarket activities exist on opposite ends of a *continuum* of possibilities, with Pro-Am models occupying the middle. Importantly, Benkler himself does not entirely rule out this possibility, either, even if his language tends to remain dominated by the binary model; for example, he notes the change in opportunity spaces, the relationships of firms to users, and, indeed, the very nature of the boundary of the firm”, and points out 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).

Overall, then, what follows from the application of the produsage model to collaborative content creation, and from its extension towards the Pro-Am space, is not a prediction of, or an argument for, the casual collapse of corporate capitalism (at least in the media and creative industries) altogether; in many areas of these industries, commercial and other institutions remain crucial components of the innovation ecology. However, it is becoming evident that future models will require a different balance between corporations and communities, and that “managing this relationship is tricky. The firms must do so 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). It is impossible to engage with produsage projects, in other words, without understanding the principles upon which they are based, and developing corporate approaches which accept and respect those principles while also enabling commercial goals to be met. As Leadbeater & Miller predict, “some professionals will seek to defend their endangered monopoly. 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” (2004: 16).

This cannot be done through hierarchical, command-and-control means, however; amateur and Pro-Am contributors will not respond well to conventional corporate management in the longer term. Instead, “for leadership in the network-centric model, the emphasis is on facilitation, on creating conditions for group participation, rather than on providing comprehensive agendas and issuing detailed action plans” (Miller & Stuart n.d.: 2). On the basis of the four key principles of produsage as we have outlined them above, it is possible for us to formulate four core requirements for such producer/produser collaboration, then:

1. Shared Responsibility and Control

Neither side of the collaborative project can be allowed to own the project outright – systems must be in place to share responsibility for its continued existence, and control of its further development trajectory. This extends to the corporate sphere the observation that in produsage, “it is the ‘object of cooperation’ itself which creates the temporary unity” amongst the community of participants (Bauwens, 2005: 1), yet also constitutes an acknowledgement by that community that the corporate side has rights and responsibilities as well.

2. Mobility between Community and Corporation

As noted above, a strict and inflexible distinction between producers and produsers, between market and nonmarket, provides a counterproductive hurdle to the effective collaboration between production staff and produsage communities; it also makes it substantially more difficult for Pro-Am participants to be effective mediators between the two sides. They, in particular, must be able to move between the two worlds with ease; additionally, however, other users in the wider produsage community may similarly be motivated to participate more frequently if a move into the professional realm remains a possibility for them, while direct engagement with user communities may also enhance staff morale for corporate staff.

3. Redesign of Products as Evolving Artefacts

It is in the very nature of produsage projects that their outcomes must remain forever unfinished: they may well be of a standard that enables them to be used in place of commercially generated products, but a project which has achieved a level of accomplishment that leaves no further room for improvement has also managed to negate any need for its produsage community’s continued existence. Commercial products, by contrast, are usually commodities marketed as ‘finished’, and any further development begins what constitutes a new product line (Windows Vista replaced Windows XP, for example, which replaced Windows 2000), rather than incremental improvement. Such disruptions to the continuous development process should be avoided, as they risk the dissipation of the produsage community.

4. Acceptance of Non-Exclusive Corporate Use of Content

Corporate use of the content jointly developed by the project is permissible, but such use must also respect the co-ownership of the produsage community. As Pesce puts it, the question of *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.). In this, corporations cannot expect to be awarded exclusive rights to make commercial use of the content created by the project;

such participation capture would turn the project's collaboration commons into a proprietary space. At any rate, the main benefits for corporate partners in the project stem not from a direct commercial exploitation of the content it may be able to create, but from the immediate and long-term relationship which it enables them to form with the produsage community.

Conclusion: Canaries in the Coalmine

To think through these principles for sustainable collaborations between production companies and produsage communities, utilising Pro-Ams as intermediaries and facilitators, is no mere theoretical exercise; instead, the significant economic difficulties experienced by a variety of media and creative industries (well before the start of the current global financial crisis) have meant substantial cutbacks and risks of not-so-casual collapse for a range of businesses. The journalism industry, in particular, has seen a number of high-profile insolvencies and currently looks to paywalls and the iPad as its – in all, rather improbable – last best hopes for salvation in a form that resembles its established industrial model.

A more likely – at least partial – solution to the current crisis, however, lies not in these desperate attempts to prop up what are likely to be fundamentally unsustainable business models that enshrine an industrial-age producer/consumer dichotomy, but rather in a greater embrace of consumers as users and producers, along the lines of what we have outlined here. Projects from the Korean *OhmyNews* (Bruns, 2005) to the German *myHeimat* (Bruns, 2009) show that it is possible to develop organisationally as well as financially sustainable Pro-Am models for journalism which combine contributions from professional editorial staff as well as amateur citizen journalists.

In establishing such models, then, and drawing on the example of *The Guardian* (which is owned and operated by a foundation rather than a conventional media organisation), it may also be necessary to explore the development of organisational structures which are neither fully for-profit nor nonprofit, neither market nor nonmarket, and instead are part of “a new ‘for-benefit’ sector, which also includes the NGOs, social entrepreneurs and what the Europeans call ‘the social economy’, and is arising next to the ‘for-profit’ economy of private corporations” (Bauwens 2005: 1). Alternatively or additionally, much of the onus of developing such new hybrid models combining production and produsage may also fall on public sector organisations – such as public broadcasters –, some of which even in the face of the global financial crisis (or even because of it, given significant government stimulus spending) are able to continue to innovate without worrying about the financial repercussions. Such publicly funded innovation would also connect usefully with many of the ‘government 2.0’ initiatives that are currently being pursued in many developed nations, which also attempt to build connections between professional politicians and policy-makers on the one hand, and citizen communities on the other.

As Jenkins points out, the challenge of developing such innovative ‘2.0-style’ solutions to current and future problems requires a comprehensive approach to thinking through the future structure of industry and society. “The key battles 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). Historically, areas such as journalism have acted as the canaries in the coalmine, indicating when Web 2.0, social media, and produsage activities had reached the critical mass required to undermine the established business models inherited from the industrial age. As many traditional media organisations are struggling in the stagnant air of their own failure to move with the times (further poisoned by the global financial crisis), these same canaries may also point us towards areas where a fruitful combination of production and produsage has generated enough oxygen for new business, organisational, and intellectual models of content creation to flourish. What is likely to emerge from these spaces, Benkler suggests, is “a combination of the widely diffuse population of individuals around the globe and the firms or other toolmakers and platform providers who supply these newly capable individuals with the context for participating in the networked information economy” (2006: 380) – a combination that is more than likely to be centred around Pro-Ams as pivotal points of connection between these different worlds.

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Bio

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