From Reader to Writer: Citizen Journalism as News Produsage

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> Over the past few years, the outlines of a new form of journalism have begun to emerge. Call it participatory journalism or one of its kindred names – open-source journalism, personal media, grassroots reporting – but everyone from individuals to online newspapers has begun to take notice. (Lasica, 2003a, n.pag.)

Today, participatory or citizen journalism – journalism which enables readers to become writers – exists online and offline in a variety of forms and formats, operates under a number of editorial schemes, and focusses on a wide range of topics from the specialist to the generic, and the micro-local to the global. Key models in this phenomenon include veteran sites *Slashdot* and *Indymedia*, as well as news-related Weblogs; more recent additions into the mix have been the South Korean *OhmyNews*, which in 2003 was "the most influential online news site in that country, attracting an estimated 2 million readers a day" (Gillmor, 2003a, p. 7), with its new Japanese and international offshoots, as well as the *Wikipedia* with its highly up-to-date news and current events section and its more recent offshoot *Wikinews*, and even citizen-produced video news as it is found in sites such as *YouTube* and *Current.tv*.

Such sites emerged alongside the 'new' social software and Web 2.0 environments, or indeed (like *Slashdot*'s content management system Slash) inspired and spurred on the development of such advanced Web publishing tools even before those terms were first

introduced into the debate. The newer generations of citizen journalism are built on the groundwork by these early developers.

A key cultural factor driving the emergence of citizen journalism, on the other hand, were (and continue to be) the shortcomings of mainstream media – whether these are caused by a limited understanding of complex specialist topics (which led to the development of technology news site *Slashdot*) or a systemic and deliberate avoidance of controversial themes for political or economic reasons (which inspired the setup of the Independent Media Centres that form the *Indymedia* network, as well as of *OhmyNews*). "As the mainstream mediaspace, particularly in the United States, becomes increasingly centralised and profit-driven, its ability to offer a multiplicity of perspectives on affairs of global importance is diminished" (Rushkoff, 2003, p. 17) – citizen journalism's intention is to fill the spaces abandoned by the mainstream.

The Citizen Journalism Process

Citizen journalism's practices differ markedly from those of the mainstream news industry, however. For the most part, its proponents have realised that, as Bardoel and Deuze put it, "with the explosive increase of information on a worldwide scale, the necessity of offering information about information has become a crucial addition to journalism's skills and tasks … . This redefines the journalist's role as an annotational or orientational one, a shift from the watchdog to the 'guidedog'" (2001, p. 94). Further, citizen journalism places 'average' citizens rather than salaried journalists in that 'guidedog' role, writing and submitting stories which are less frequently the outcome of direct investigative reporting, and more often collect and collate available information on certain newsworthy topics. The practice here is similar most of all to that of industry journalists compiling stories from a variety of news agency feeds and combining it with further evaluation and commentary.

Rather than as a perpetuation of traditional gatekeeping practices, then, which are no longer effective in a world where source information is directly available to journalists and news users alike (that is, where the 'gates' to keep have multiplied beyond all control), the underlying principle of citizen journalism is one of gate*watching*: citizen journalists engage in the continued observation of the output gates of key institutions and organisations as well as of news outlets, and the gathering and compilation of those items

of information which are relevant to the story at hand (for a detailed description of this process, see Bruns, 2005). In their reports, citizen journalists – as gatewatchers and information 'guidedogs' – focus more on publicising the availability of important information than on publishing new stories, in other words, and rely on their readers to draw their own conclusions from such reports as well as the source information they link to.

Editorial oversight of this process remains limited (or indeed is absent altogether, in some cases), for a variety of reasons. On the one hand, the gatewatching/publicising process could be seen as requiring less policing as it builds on information available elsewhere; 'bad' stories are thus easily identified by editors and readers as they often quite obviously misrepresent the sources they use (this is not the case in traditional, industrial journalism, where the veracity of a journalist's appropriation of news agency reports in developing their story is difficult to confirm for readers unless they have direct access to the source reports). On the other hand, and more importantly, citizen journalism usually relies on its users as participants in the process at the output (story publication) and response (commentary) stages as much as it does at the input (story submission) stage – rather than installing site owners and editors as the final arbiters of story quality, in other words, citizen journalism usually relies on its users to evaluate submitted stories.

This takes place differently in different citizen journalism sites. While some sites (such as *Slashdot* or *OhmyNews*) retain the role of traditional content editors, if in a strictly limited fashion, some (such as *Kuro5hin* or *Plastic*) allow all registered users to comment and/or vote on submitted stories before they are 'officially' published, while others (such as most *Indymedia* sites) publish all submitted stories automatically, leaving it to their users to debate and evaluate the quality and veracity of news stories through commentary and discussion functions attached to each story. Further, especially in wiki-based sites like *Wikipedia* and *Wikinews* it also becomes possible for users to continue to edit and improve stories *after* publication; this approaches what Matthew Arnison, developer of the first *Indymedia* content management system, describes as 'open editing', and as a desirable further development beyond the 'open publishing' already practiced in many Independent Media Centre sites (2002).

Such post-publication filtering and editing is by necessity a collaborative effort, and today takes place predominantly through comments and discussion – users may provide further information and references which extend, support, or contradict details of the

original story, they may comment on the summary of information provided in the article, or they may provide alternative points of view to those espoused in the story itself. Frequently, such discussion and debate is significantly more detailed than the story which sparked it, showing that in citizen journalism the primary focus is on such discursive engagement more than on the mere provision of facts; as Chan describes it in her study of *Slashdot*, "highlighting the expertise of users and the value of their participation, news reading shifts from an act centred on the reports and analyses of news professionals and designated experts, to one often equally focussed on the assessment and opinions of fellow users on the network." (2002, ch. 2, n.pag.).

News production in such environments, in other words, is community-based; it "proceeds from a logic of engagement founded upon notions of production and involvement rather than consumption and spectacle" (Gibson and Kelly, 2000, p. 11) and therefore deserves the description as participatory, citizen journalism. Users in such environments are always also invited to be producers of content; indeed, the boundaries between the two roles are increasingly blurred and irrelevant. As we will see soon, it becomes more useful to describe their role as that of a hybrid user-producer, or *produser* (Bruns, 2008).

This supports Gillmor's observation that "if contemporary American journalism is a lecture, what it is evolving into is something that incorporates a conversation and seminar" (2003b, p. 79). At its best, such discursive citizen journalism – found in dedicated citizen journalism Websites as much as in the even further decentralised, distributed discussions of the news blogosphere – approaches what Heikkilä and Kunelius postulate as deliberative journalism: "deliberative journalism would underscore the variety of ways to frame an issue. It would assume that opinions – not to mention majorities and minorities – do not precede public deliberation, that thoughts and opinions do not precede their articulation in public, but that they start to emerge when the frames are publicly shared." (2002, n.pag.). Further, it realises a challenge for journalism which was first set by scholar Herbert Gans in 1980:

> Ideally, … the news should be omniperspectival; it should present and represent all perspectives in and on America. This idea, however, is unachievable … . It is possible to suggest, however, that the news, and the news media, be multiperspectival,

> presenting and representing as many perspectives as possible – and at the very least, more than today. (1980, p. 312-3)

Today, the stories and debates of citizen journalism can be seen as a form of multiperspectival news.

A further implication of this discursive, deliberative, multiperspectival mode of news coverage, however, is also that the stories of citizen journalism remain by necessity always unfinished; as Hiler puts it, "the Blogosphere is pioneering a new form of iterative journalism" (2002b, n.pag.), and this applies also for citizen journalism more generally. In a collaborative, commentary- and discussion-based citizen journalism model it always remains possible for new and insightful comments and distributions to be added to a story even well after its time of publication; further, in an open editing model (perhaps especially in wiki-based environments) there always remains the possibility of new revelations which require a fundamental revision of the existing piece. As *Kuro5hin* operator Rusty Foster puts it, "the story is a process, now, instead of a product, like the news industry has taught us to think. It's never done, and the story is always evolving. Collaborative media gives [*sic*] us the power to contribute to that evolution, to all be part of the reporting of news, just like we're all part of the making of it" (2001, n.pag.).

Such comments begin to point to what is perhaps one of the most enduring misconceptions introduced through industrial journalism, one which might stem from the prevailing paradigms of the industrial age itself: that news or other products (especially of an information nature) can be neatly divided into finalised versions, editions, and issues. *Kuro5hin*'s Rusty Foster summarises the traditional perspective: "the way journalism right now works in the mainstream media is an industrial process: … You collect raw material from sources, and then you package it into a product and you deliver it to eyeballs. It's a very neat, very simple, very 19th century way of thinking about doing things" (Foster qtd. in "New Forms of Journalism", 2001, n.pag.) As an alternative to this package-and-deliver metaphor, artist Brian Eno suggests that

> the right word is "unfinished." Think of cultural products, or art works, or the people who use them even, as being unfinished. Permanently unfinished. We come from a cultural heritage that says things have a "nature," and that this nature is fixed and

describable. We find more and more that this idea is insupportable – the "nature" of something is not by any means singular, and depends on where and when you find it, and what you want it for. (Qtd. in Kelly, 1995, n.pag.)

Open News and Open Source

If citizen journalism in its various forms, if "new media technologies and trends in civil society force us to rethink journalism's role at the start of the new millennium, in particular its traditional definition as a top-down profession" (Bardoel and Deuze, 2001, p. 92), then, this points to parallels with other challenges to traditional industrial-style information production models – most obviously perhaps the open source software development model. As Meikle notes for the Independent Media Centre network, "the IMC philosophy of open publishing is … entirely consistent with its technical foundations in the open source movement. Both essentially argue that anyone can and should be trusted to be both creative and responsible. … In yielding editorial control in favour of relying on participants to be responsible in their contributions, the IMCs trust that a self-selection process will keep the projects on track" (2002, p. 108); this applies similarly also for many or most other participatory, citizen journalism projects, which we could therefore also describe as 'open news' (see Bruns 2003, 2005).

Indeed, open news projects translate which Stalder and Hirsh have described as 'open source intelligence', or 'OS-INT', to the production of news content: "OS-INT means the application of collaborative principles developed by the Open Source Software movement to the gathering and analysis of information. These principles include: peer review, reputation- rather than sanctions-based authority, the free sharing of products, and flexible levels of involvement and responsibility" (2002, n.pag.).

In addition to these principles, it is possible to draw further parallels: for example, where in open source development the source code to software is always also available so that potential users can check for bugs and verify the absence of malicious hidden code, in open news there are links to source reports embedded in articles so that users can check for misrepresentations or malicious misinformation. Both models also accept content as inherently incomplete, in line with Brian Eno's observations: open source as well as open news explicitly invite further user contributions in aid of a continual, iterative, and

evolutionary development process. It should be noted that such continuous collaborative improvement, which requires the reappropriation and redevelopment of existing content, also relies on the use of alternative copyright licences – but to date, only open source has effectively and widely deployed a solid set of free/libre/open source software (FLOSS) licences, while on average open news sites so far only dabble in the use of creative commons or GNU PDL licences, and in many cases could be seen as operating with open disregard for existing copyright legislation (especially in their practices of citation or outright republication of copyright source materials).

In further similarity to open source, open news proponents also support a 'power of eyeballs' argument, which relies on the collective insights of a broad userbase rather than on a small number of professional editors for quality assurance. As Rusty Foster puts it, "collaborative media relies [*sic*] on the simple fact that people like to argue. I don't care how many people CNN runs any given report by, we run it by more. More people, in most cases, equals more accountability, equals better quality" (2001, n.pag.).

However, crucial differences with open source software production also emerge at this point. Compared to open source, where sophisticated models are now in place for facilitating and coordinating distributed collaborative development efforts, the administrative structures for open news publishing still remain in their infancy. To date, it is possible to trace four broad models, which further exist in a number of local variations:

1. *Supervised or editor-assisted gatewatching:*

   This model emerged with *Slashdot*, where site editors retain the right to make a selection from all submitted news stories, and publish only those stories they deem relevant to the site. However, there is no further policing of subsequent commentary and debates. *OhmyNews* has further extended this model by partnering citizen and professional journalists – here, "all stories are fact checked and edited by professional editors" (2003, n.pag.).

2. *Gatewatching and community-based administration:*

   Sites such as *Kuro5hin* and *Plastic* responded to what they regarded as shortcomings in the *Slashdot* model by further opening the editorial process and removing the special privileges of dedicated site editors. Here, all submitted stories are made

available to registered users for editorial commentary and subsequent voting – only stories which undergo this process and receive a sufficient amount of votes are ultimately published to the general public. Thus, "the audience acts as editor before and after publishing" (Bowman and Willis, 2003, p. 28).

3. *Open publishing:*

   As Meikle describes it, "open publishing is the key idea behind the IMC. There are no staff reporters as such – instead, the content is generated by anyone who decides to take part. There is no gatekeeping and no editorial selection process – participants are free to upload whatever they choose, from articles and reports to announcements and appeals for equipment or advice" (2002, p. 89). While this ensures total freedom from editorial intervention, it also provides a wide opening for abuse by vandals or political extremists, and has become an increasing problem for *Indymedia* sites – to the point that some sites have introduced limitations to the open publishing model (such as a more traditionally edited front page). For Arnison, this is an unavoidable development: "as Indymedia grows it is drifting away from open publishing" (2002, n.pag.). In addition to *Indymedia*, the publishing approaches found in the blogosphere could generally also be described as a (decentralised) form of open publishing; however, individual blog sites may institute their own editorial principles and processes.

4. *Open editing:*

   Arnison suggests that "open publishing is about more than just open posting. It's also about open editing" (2002, n.pag.). However, to date wiki-based publications, rather than extensions of traditional open news content management systems, provide the most successful model for open editing approaches. Such sites again appeal to a 'power of eyeballs' argument and invite all users to contribute by adding information and fixing errors; additionally – and in distinction from other open news sites – *Wikipedia* and *Wikinews* have also instituted a 'Neutral Point of View' (NPOV) doctrine for their content, which at first glance could be seen to support a Gansian multiperspectivality model. Actual applications of such policies differ markedly across both sites, however; as discussed elsewhere (Bruns, 2006), *Wikinews*

contributors' interpretation of NPOV is overly literal to the point of squeezing "the life out of their stories, reducing lively news coverage to dull regurgitation of facts" (Yeomans, 2005, n.pag.), while by comparison *Wikipedia* also benefits from its significantly larger contributor base and can thus provide more effective and up-to-date coverage of news and current events.

Citizen Journalism as News Produsage

Overall, while similarities to open source are strong for open news, there are also some crucial differences between the two fields of content production. It becomes important, then, to develop broader, overarching models of collaborative content production in post-industrial, informational contexts. In this approach, open news (along with open source and other forms) is "an example of how the internet can be used as a democratic medium or innovation commons where its users share control over the creation, publication and usage of content" (Platon and Deuze, 2003, p. 339), pointing to what Rushkoff has described as "new metaphors for cooperation, new faith in the power of networked activity and new evidence of our ability to participate actively in the authorship of our collective destiny" (2003, p. 18).

In pursuing such new metaphors, it is important to fundamentally question the models of cooperation and content production which we have inherited from the industrial age – indeed, as audiences have become users and industrially produced products have become collaboratively authored content, we need to question the very language of production itself. As noted previously, in collaborative content creation environments it is becoming difficult if not impossible to tell mere users from producers; a sliding scale of user engagement rather than traditional distinctions between producers, distributors, and consumers now applies. We are entering an environment where users are always already also producers of content, or indeed have become hybrid *produsers*. Their practices of *produsage*, then, whether taking place in open source software development, open news publishing, or other fields, exhibit four fundamental characteristics (see Bruns, 2008):

1. Open Participation, Communal Evaluation

Produsage is based on a principle of inclusivity, not exclusivity, and is therefore open to all comers. Produsage therefore draws on as broad a range of available knowledge, skills, talents, and ideas as is available, and encourages its participants to apply these diverse capacities to the project at hand. Their contributions are in turn evaluated by other participants as they make their own contributions to the shared effort: those contributions deemed useful and relevant will be further improved upon, while those which are not will remain unused.

2. Fluid Heterarchy, *Ad Hoc* Meritocracy

Produsage necessarily proceeds from a principle of equipotentiality: 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. Leadership is determined through the continuous communal evaluation of participants and their ideas, and through the degree of community merit they are able to accumulate in the process; in this sense, then, produsage communities are *ad hoc* meritocracies.

3. Unfinished Artefacts, Continuing Process

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. The content found in a produsage community always represents only a temporary artefact of the ongoing process, a snapshot in time which is likely to be different again the next minute, the next hour, or the next day.

4. Common Property, Individual Rewards

The communal produsage of content 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. Participation in produsage projects is generally motivated mainly by the ability of

produsers to contribute to a shared, communal purpose. But although content is held communally, produsers are able to gain personal merit from their individual contributions – and in some cases this has been converted into tangible outcomes for dedicated produsers.

Described in such terms, then, produsage can be shown to exist in a wide variety of domains – in open source and open news, but also in the collaborative narrative and content development which takes place in massively multi-user online games, in the collaborative creative processes of sites ranging from *Flickr* and *ccMixter* through to *YouTube* and *Current.tv*, and in the multiperspectival knowledge spaces of *del.icio.us*, *Wikipedia* and *Google Earth*. It is also harnessed by commercial operators such as Amazon (for example through its recommendation systems) or Google (amongst others through its PageRank algorithm and *Google News* content aggregator). Indeed, Web 2.0 and social software can be seen as projects built on broad trends towards produsage as a paradigm replacing traditional, industrial production, and many commercial operators are taking note (see for example *Trendwatching.com*'s 2005 coverage of 'customer-made' products).

Especially as far as informational content is concerned, produsage is distinctly different from industrial production – and this has important implications for news and journalism. Taken to its logical conclusion, informational produsage ends the traditional product cycle; its outcomes are no longer discrete versions of products – in the case of journalistic produsage, individual stories representing all that is known about a given event at the time of publication – but a diffuse sequence of ongoing and potentially never-ending revisions; as news content, this would resemble an up-to-date wiki entry much more than it would replicate traditional journalistic writing.

Similarly, informational produsage fundamentally alters producer/distributor/consumer relations, eradicating any inherent systemic differences between them; as Shirky puts it,

> In changing the relations between media and individuals, the Internet does not herald the rise of a powerful consumer. The Internet heralds the disappearance of the consumer altogether, because the Internet destroys the noisy advertiser/silent consumer relationship that the mass media relies [*sic*] upon. The rise of the Internet

> undermines the existence of the consumer because it undermines the role of mass media. In the age of the Internet, no one is a passive consumer anymore because everyone is a media outlet. (2000, n.pag.)

Finally, and perhaps most problematically, this eradication of differences through the rise of the produser and the free availability of content as part of collaborative produsage projects also necessitates a fundamental shift in commercial practices. While such a shift is yet to occur in many domains, open source provides an early template for this: here, the core business of commercial operators lies no longer in the sale of products, but in the provision of services. As Dafermos points out, "making money out of open source/free software is not evil – as some people wrongly believe – as long as the community rules are strictly adhered to" (2003, n.pag.), and indeed companies such as Red Hat are highly successful in this environment even though they engage in a field where content is freely available.

Questions for News Produsage

If we apply produsage theory systematically to participatory citizen journalism, then, a number of key questions emerge – questions which also apply across the different domains of produsage overall.

Content Ownership

First, as Thake points out,

> one of the fundamental issues at stake in the open source debate is ownership of the text. There are media projects currently at work that completely destabilize concepts of ownership and copyright, projects that have the chance to point toward an altogether new, non-proprietary future. (2004, b. 2)

However, the answer cannot be simply to ignore copyright and, by implication, content ownership altogether. Open source today has found mature and sophisticated tools for addressing the shared ownership of content and permitting continuing collaborative

produsage while preventing unauthorised commercial exploitation. Beyond defining what further use is acceptable for the outcomes of its own produsage processes, however, open news participants must also become more aware of the implications of their use of source materials. While some of the uses made of existing materials may be covered under applicable fair use, news commentary, or even parody exceptions to existing copyright laws, at a time of increasingly restrictive and pro-corporate revisions to copyright legislation such protections are by no means guaranteed to survive. This means that one the one hand, news produsers need to show more awareness of what is permitted under applicable laws, but on the other they also need to join the struggle to keep their practices legal.

Trust

A second key question for citizen journalism is one of trust. Again, strong parallels between open source and open news can be found here – for some time, open source has battled against perceptions which held that a community-produced, non-commercial software package could not possibly meet the standards set by proprietary competitors. It is evident from its widespread use especially in mission-critical environments – from Web servers to spacecraft – that the open source community has won that battle, and has demonstrated the quality of its outcomes as equivalent to, or better than, comparable commercial solutions; indeed, it is commercial operators who have been forced to some extent to reveal their source code in order to prove that no bugs or malicious code were hidden within it.

In this context, open source also profits from its ability to make available both thoroughly tested and slightly older 'stable' versions of its software, *and* bleeding-edge, just-released beta versions; users can therefore choose the level of collaborative quality assurance they are comfortable with. The same, however, does not apply in open news: here, too, "the working parts of journalism are exposed. Open publishing assumes the reader is smart and might want to be a writer and an editor … . Open publishing assumes that the reader can tell a crappy story from a good one. That the reader can find what they're after, and might help other readers looking for the same trail" (Arnison, 2003, n.pag.), but at the same time, most of the content of open news exists by necessity in a 'perpetual beta' (or even alpha) version.

On the other hand, of course, this perpetual beta state is perhaps unavoidable if we adopt Eno's model of informational content as always necessarily unfinished – even in sites like *Kuro5hin* which institute elaborate communal editing processes. The unfinished nature of content, in this view, serves as a call for users both to critically approach any content they encounter, and to become active produsers and further improve its quality. This is in line with the overall 'power of eyeballs' argument, which holds that even in spite of brief temporary aberrations, the quality of collaborative authored content will generally show a steady improvement, and it also points to a different form of trust – one based not in traditional editorial processes but in a community of peers: "when the audience owns the medium, and owns the power to equitably compete in the same space, the medium and its forms carry a level of trust not found in any other media to date" (Bowman and Willis, 2003, p. 44).

Similar to open source, the performance of traditional content production industries may prove to be helpful here – in much the same way that perceptions of poor production quality and customer service for commercial software have driven sizeable numbers of users towards open source software, perceptions of systemic bias and commercial and political agendas in the mainstream news industry have strengthened the role of citizen journalism. As Walsh describes the developments of recent years, "once the 'news,' which journalism traditionally presents as the objective truth, was revealed to be a manufactured product – a product manufactured, moreover, by methods that seemed cynical and manipulative to many outsiders – the knowledge hegemony of journalism began to show cracks" (2003, p. 369).

The full implications of this still continuing shift remain yet to be established – but we can take *Kuro5hin*'s Rusty Foster as speaking on behalf of a large community of citizen journalists when he notes that "we may be biased, but at least we're obviously biased. And K5 has so many different points of view, that a fairer process can emerge from a balance of biases" (2001, n.pag.). The growing realisation that industrial journalism has severely compromised its professional ideals should not relieve citizen journalism from its own obligations to ethical conduct, however. As Lasica notes, those "who dabble in the journalistic process would do well to study the ethics guidelines and conflict of interest policies of news organizations that have formulated a set of standards derived from decades

of trial and error" (2003b, n.pag.) – even if the enforcement of such guidelines is sometimes unacceptably lax in mainstream journalism itself.

In particular, the question of liability remains largely untested for open source, open news, and other communally produsedcontent. While 'use at your own risk' disclaimers are more or less explicitly in place, their effectiveness in fending off potential legal action is as yet unclear – as is the question of who (in a massively co-produsedproject that may not require contributors to provide personal identification details) would be held responsible for any errors: operators of produsage environments may be at risk from the actions of their contributors here. Additionally, in comparison to open source, where new revisions can fix the bugs overlooked in previous iterations and are likely to be downloaded by virtually all existing users of the software, the clientele of citizen journalism news sites is more fleeting – the reach of corrections to misinformation in news stories is likely to be far more limited.

Economic Model

A third question arising from the conceptualisation of citizen journalism as a form of produsage concerns its economic models. As Shirky argues, blogs and other forms of citizen journalism cannot be commercial enterprises in themselves: "They are such an efficient tool for distributing the written word that they make publishing a financially worthless activity. It's intuitively appealing to believe that by making the connection between writer and reader more direct, weblogs will improve the environment for direct payments as well, but the opposite is true. By removing the barriers to publishing, weblogs ensure that the few people who earn anything from their weblogs will make their money indirectly" (2002b, n.pag.).

This phenomenon is hardly restricted to citizen journalism, however: industrial journalism, too, has yet to develop sustainable models for online publishing – and additionally, activities such as classified advertising, which have traditionally underwritten the publication of print newspapers, are increasingly moving to stand-alone Websites which are profitable in themselves, but no longer cross-subsidise news journalism. This has already led to a reduction in journalism staff in many news organisations around the world.

If sustaining themselves through selling the news is no longer a viable business model for most news organisations, let alone for citizen journalists, then citizen journalism may need to look elsewhere to ensure its sustainability. Some ideas may again be gleaned

from the open source community in this context – key opportunities may be developed around what can be described as:

- **Harvesting the hive** – the systematic gathering of relevant content from quality citizen (and mainstream) journalism sites in order to republish it in other formats. We see beginnings of this model already in major content aggregator sites such as *Google News*, but also many smaller, more specialised aggregators. Citizen journalists may be able to build on their strengths as gatewatchers in this context, and offer this gatewatching service to the general public (funded by donations, subscriptions, or advertising) or to paying clients wishing to keep track of current views in the extended mediasphere.

- **Harbouring the hive** – the commercial provision of spaces for produser communities. While not a commercial entity in its own right, the Wikimedia Foundation, as well as the loosely related wiki hosting service Wikia provide useful models here, as does *Sourceforge* in the open source field, or *Flickr* (which offers fee-paying 'pro' accounts in addition to its basic free option) for creative produsage. The viability of such services depends on the willingness of produser communities to pay for commercial hosting, however – and while numerous commercial blog providers exist, the same may not be the case for hosting solutions for collaborative citizen journalism sites (see Bruns, 2008).

If neither of these models offers a great deal of sustainable economic support for citizen journalism, then this should cause significant concern for proponents of such activities. However, in open source itself, individual contributors often make a living in paid employment and have part of their work time set aside to contribute to open source projects as this is seen to benefit the employer in turn, or they cross-subsidise their open source development activities from income generated through making available their expertise in installing, developing, and maintaining open source software packages. In either case, in other words, they contribute freely to content development but sell ancillary services related to the content they have been involved in developing.

It is interesting to consider how such models could translate to citizen journalism. On the one hand, an argument could be established that employers (especially perhaps in the public sector) should permit their staff to participate in citizen journalism activities, as this would benefit society overall. The participation of professionally employed journalists in *bona fide* citizen journalism projects (that is, engagement beyond the pseudo-blogs currently operated by many mainstream news Websites) could also boost their own and their news organisation's standing in the wider community. On the other hand, individual citizen journalists might also be able to commercialise the skills gained in their engagement in citizen journalism, for example by becoming paid media pundits or by advising commercial clients on the dynamics of online communities. However, such citizen journalism consultancy models, ranging from for-pay blogging schemes which encourage bloggers to spread positive messages about specific products to persistent politically biased interference in *Wikipedia* content, can generate significant community backlash, too.

Conclusion

The twin questions of how to finance citizen journalism sites, and citizen journalists' participation in them, therefore remain of paramount importance for the overall collaborative open news project. Even in spite of such serious questions of sustainability, and in spite of the continuing ambivalent response to citizen journalism from the traditional journalism industry, however, citizen journalism has already shown a strong impact on journalism itself, and some journalists and journalism organisations, at least, look at these new models "through the professional lens of a 'competitor-colleague' journalism which may yet prove to be the crucible for new ways of reconnecting journalism, news and media professionals with ideals of sharing access and participatory storytelling in journalism" (Platon and Deuze, 2003, p. 352).

Perhaps a more fundamental task is to ensure a broad societal basis for participation in the project. As Bardoel and Deuze warn, "in general, the new opportunities will, as always, favour the privileged, while people on the other side of the 'digital divide' will continue to rely on public service-orientated mediators" (2001, p. 99), but such divisions are not acceptable for citizen journalism in the longer term. Heikkilä and Kunelius similarly note that "public participation requires certain cultural and social competences that are not

evenly distributed in societies. It may be that criteria set for what is reasonable and constructive discussion suit the educated, and relatively well paid journalists and their peers, but probably not all the citizens" (2002, n.pag.), but if this divide cannot be overcome, citizen journalism itself may be doomed to fail.

On the other hand, if broad societal involvement in citizen journalism can be established – if a critical mass can be found –, then even dubious financial sustainability will not be able to undermine the overall citizen journalism project. As in open source, and as in so many other produsage models, in that case a lack of steady financial support could force a further decentralisation of citizen journalism across a wide range of networked Websites, wikis, and blogs, but it could not diminish citizens' enthusiasm for participating in such collaborative produsage-based environments.

If this is indeed the case, then, as Rushkoff has put it, "in an era when crass perversions of populism, and exaggerated calls for national security, threaten the very premises of representational democracy and free discourse, interactive technologies offer us a ray of hope for a renewed spirit of genuine civic engagement" (2003, p. 16). If this hope can be realised, then the *Slashdot*s, *Indymedia*s, and *Wikipedia*s of citizen journalism might come and go, but the overall paradigm shift in informational content creation from production to produsage continues on. "The best evidence we have that something truly new is going on is our mainstream media's inability to understand it" (Rushkoff, 2003, p. 53-4).

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