

## Reconfiguring Television for a Networked, Producers Context

Dr Axel Bruns  
Media & Communication  
Creative Industries Faculty  
Queensland University of Technology  
Brisbane, Australia

a.bruns@qut.edu.au  
<http://snurb.info/>

Descriptions of newer media forms and technologies in analogy to older media and communication paradigms are widespread and commonplace. Pre-Internet dial-up community networking sites were described as electronic bulletin board systems, Skype and similar audiovisual communications tools provide what we regard as Internet protocol (IP)-based telephony, *Wikinews* even has a virtual 'watercooler' for discussions about the operations of its community of citizen journalists. Such trends to paleomorphise new media technologies are perhaps most pronounced where existing older technologies have almost universal purchase throughout society – alongside the telephone, broadcast technologies such as radio and television have today achieved such iconic status that any attempt to reinvent them for a new media context must work hard to overcome the dominant paradigm describing and prescribing what they are and should be.

However, especially in the context of television, it is now becoming possible to suggest that rather than perceiving and analysing streaming media, *YouTube*, video filesharing, and IPTV from a perspective shaped by half a century and more of television production and consumption, a reversal of focus may be in order: this would position the emerging Internet-based video distribution models as the core exemplars in relation to which conventional broadcast, cable, and pay-TV models may be described and understood. In this view, airwaves and dedicated cable television networks therefore constitute a transmission network analogous to the Internet, and televisions, VCRs, PVRs, set-top boxes, and other reception, recording, and playback technologies may be seen as television's version of streaming media players. What also becomes immediately obvious is that from this perspective, conventional television technology constitutes only a second-rate, impoverished version of (live) streaming media, providing only "the creaky and unreliable technology of audiovisual distribution" (Pesce, "Piracy", n.pag.) of the analogue, mass media age (even where its actual broadcast technology has now finally been dragged kicking and screaming into the twenty-first century).

In and of itself, conventional television provides simply a comparatively cumbersome framework for the continuous, scattergun delivery of audiovisual content, in other words – it offers no built-in opportunities to request, play on demand, pause, restart, rewind, save, share, or retransmit content, and such possibilities have been retroengineered into the basic television system only through the development of time- and place-shifting technologies (VCRs, PVRs, personal media players) and the deployment of on-demand and more or less

interactive television services. While admittedly some such technologies predate the mass take-up of Internet-based video distribution, many recent television technology developments can be understood as playing catch-up with streaming media: they constitute what could be described as plug-ins for basic television equipment, so as to better mimic the affordances of streaming media players. In doing so, they have turned viewers' experience of television from an experience analogous to *live* streaming media (offering only a basic choice between tuning in to or turning off from the live broadcast stream) to one which comes closer to streaming media more generally, or even one which provides a very limited approximation of video filesharing – where cable TV offers on-demand access to content, and where VCRs and PVRs are programmed similar to filesharing software to download content of interest for viewing at a later date.

However, in the digital environment, what Pesce describes as the “hyperdistribution techniques” of the Internet remain “more efficient than broadcast networks for television program distribution” (“Piracy”, n.pag.). Largely, this is due to the fact that broadcast networks remain separate from the networks of the Internet, and (for technical and historical reasons) do not subscribe to the principle of network neutrality: the principle that all participants in the network have an equal chance of transmitting their content to other users, regardless of their status as public or private, as corporate, community, or individual entities. For television, historically this has had positive as well as negative effects: it has led to the concentration of the television production and broadcasting industry to a point that in many nations only a handful of major corporations (and public institutions) attract an overwhelming share of the audience; this has limited the content options available to audiences and has made it difficult for new operators to enter the industry, while at the same time also enabling the establishment of strong production values by harnessing the synergies and cost savings available in a concentrated and even oligopolistic industry structure. Fundamentally, the lack of network neutrality – in other words, the inbuilt network bias in favour of incumbent institutions – in broadcast and cable television networks has traditionally served to shield such incumbents from emerging competition, and has thereby allowed them to undertake more long-term strategic planning on the expectation of reasonably stable revenue streams.

### **Video Produsage**

The emergence of the Internet as a neutral network for the peer-to-peer, many-to-many distribution of audiovisual content alongside the biased network of broadcast and cable television clearly challenges such stable arrangements. Internet technologies allow their users to create, stream, and share their own content, as well as the to build alternative systems for the wider redistribution of television and other audiovisual content which may have been available originally only from specific local sources, within a limited timeframe, or to a select group of recipients; such phenomena can be observed for example in the rise of machinima (the recording, editing, and distribution as online video of scripted dramatic sequences staged

in immersive multiplayer 3D environments), the growth in videoblogging and other forms of DIY video content shared through personal sites or content hubs such as *YouTube*, *Revver*, or *JumpCut*, and the filesharing of amateur and professional video content (including the redistribution of television content and the illegal sharing of commercial DVDs) through BitTorrent and other peer-to-peer networks.

Where what is shared in this way is content created by users themselves (often through distributed collaborative efforts), it can be seen to form part of a wider phenomenon of produsage – the engagement of participants in a hybrid user-producer role which also drives other new media projects from open source software development to citizen journalism and the *Wikipedia* (see Bruns, “Produsage”; “The Future”). Produsage builds on the open participation of users in collaborative efforts organised through fluid and *ad hoc* heterarchical structures, and on the sharing of its artefacts within the community of participants – it therefore crucially relies on the neutrality of the communications networks it utilises to facilitate user-led content creation and collaboration. In the process, the evident popularity of the produsage and sharing of user-generated video content through *YouTube* and other services highlights what Pesce describes as “the Big Lie of Big Media: if it isn’t professionally produced, the audience won’t watch it.” In reality,

salience determines whether an audience will gather around and share media, not production values. In the time before hyperdistribution, audiences had a severely limited pool of choices, all of them professionally produced; now the gates have come down, and audiences are free to make their own choices. When placed head-to-head, can a professional production of modest salience stand up against an amateur production of great salience? Absolutely not. The audience will always select the production which speaks to them most directly. Media is a form of language, and we always favor our mother tongue. (Pesce, “Hypercasting”, n.pag.)

This echoes Shirky’s observation that “media people often criticize the content on the Internet for being unedited, because everywhere one looks, there is low quality”: he points out that “what they fail to understand is that the Internet is strongly edited, but the editorial judgment is applied at the edges, not the center, and it is applied after the fact, not in advance” (“Broadcast Institutions”, n.pag.). Indeed, video produsage sites such as *YouTube* as well the produser communities existing around filesharing networks must also be understood as fulfilling that crucial role of communally evaluating the content created and made available by their participants, thereby allowing quality, popular content to rise to wider attention. By industry standards, the production values for much of the content shared through such systems may be low, but the entertainment value – or more generally, the salience – of such content for its viewers is evidently high enough to attract large numbers of users; in the process, we can observe the emergence of new content genres from machinima to mash-up, as well as the revitalisation of older forms (such as the short film) in new

contexts. This is a process of format innovation, of creative prototyping, which is likely to have impacts on audiovisual formats well beyond present online video hotspots.

If the produsage and sharing of audiovisual content by users for users can be described as a response to the network bias built into broadcast and cable television, which had the effect of locking out most of the creative work of television viewers from the medium (except for dedicated spaces including *Funniest Home Videos* shows, and amateur news footage), then the development of user-led distribution networks – the produsage of alternative means of video content distribution in the form of videosharing sites and filesharing technology – can similarly be seen as a reaction against some of the most acutely felt negative effects of network bias. Oligopolistic corporate control over television networks is manifested *inter alia* in the controlled release of broadcast content over time and across geographic territories, which aims to maximise audience buy-in and programme ratings and thereby to generate strong advertising and/or subscription returns. Filesharing networks in particular have substantially undermined such approaches, and (though framed by advertising as independent innovation rather than necessary change) the recent near-simultaneous global launch of new shows such as *Jericho* and the advertising of Ten's broadcast of *Californication* as “streamed directly from the U.S.” can be seen as first industry responses to such developments. Pesce highlights the example of the re-imagined *Battlestar Galactica* series, which premiered in the U.K. some three months before the planned U.S. launch, but was heavily redistributed by enthusiastic viewers in the meantime, as a particularly salient example for the demise of traditional content embargo and region zoning models as they had been possible under a biased network model (Pesce, “Piracy”). Additionally, filesharers also act to overcome other intrusions into television content which had been possible at a time when network control was biased towards incumbent industries: they may remove commercial breaks, overcome national censorship regimes (relating for example to offensive language) by sharing less censored versions of the same show as broadcast in other regions, or ‘liberate’ pay-per-view content by redistributing it through alternative networks.

In the process, broadcast and cable television is further transformed into a sub-class of streaming or fileshared audiovisual content – quite literally so where users act on their own initiative to transfer content from the biased and technologically limited network of television to neutral and more flexible Internet-based networks. What becomes obvious here is that the technologies and processes of television – once constituting an effective and powerful network for widespread content distribution – have now been outclassed by the Internet, to the point that in the absence of significant innovation on part of television operators, many users themselves have begun to do the industry's work of shifting content from one network to the other; as Litman already noted in 2003, then, “at least for some material, untamed digital sharing turns out to be a more efficient method of distribution than either paid subscription or the sale of conventional copies. If untamed anarchic digital sharing is a superior distribution mechanism, or even a useful adjunct to conventional distribution, we ought to encourage it rather than make it more difficult” (4).

## What Future for the Television Industry?

Now we get to see the great, unspoken truth of television broadcasting – it's nothing special. Buy a chunk of radio spectrum, or a satellite transponder, or a cable provider: none of it gives you any inherent advantage in reaching the audience. Ten years ago, they were a lock; today, they're only an opportunity. There are too many alternate paths to the audience – and the audience has too many paths to one another. (Pesce, "Nothing Special", n.pag.)

Once a significant benefit for television operators, and a privilege attained at high cost in the form of spectrum licences and cable tenders, the inherent bias of traditional broadcast and cable networks increasingly constitutes a problem for its apparent beneficiaries, as media user preferences turn towards interactivity, intercreativity, and produsage. Users who are growing familiar with the vastly increased range of content options available to them through various forms of videosharing Websites and filesharing networks, users who have "come to understand that the sharing of media is an act of production in itself – that *we are all our own broadcasters*" (Pesce, "Hypercasting", n.pag.) –, users who are increasingly embracing the produsage and sharing of their own media content, and of hybrid content mash-ups incorporating a wide variety of sources: such users can no longer be wooed effectively and consistently even with the higher production values which the industrial model of audiovisual content production may be able to provide, if the same model also entails their return to a relatively passive position as viewers and audiences; instead, they must be embraced through new models which allow for their participation, their creative contribution, even their leadership in content production and distribution. Litman suggests that "what seems to be driving the explosive growth in this information space is that people like to look things up, and they want to share" (8) – how, then, may the television industry reconfigure itself to participate in this information and entertainment space, while remaining financially sustainable? Alternatively, is "October 18th, 2004" – the day that *Battlestar Galactica* premiered in the United Kingdom, and sparked a global effort to redistribute the show to audiences as yet unable to see the show on their local television networks – indeed "the day TV died", as Pesca suggests ("Piracy", n.pag.)? Three related strategies are now becoming visible, offering at least partial answers to these questions. In outlining these developments, it should be noted that the field of television (or more broadly, audiovisual content distribution) beyond broadcasting is today in considerable flux, with new technological, corporate, operational, and content models emerging with great frequency. What is possible within the limitations of a single article, then, is no more than to sketch out key current trends and extrapolate their future trajectories, offering a glimpse of possible futures for television and its attendant industries. At the same time, a number of equally feasible alternative strategies may still lie beyond the event horizon of the present moment of transformation and reconfiguration.

## *IP Networks as the New Backbone*

In the first place, the emergence of IPTV (Internet Protocol TV) and similar technologies for the delivery of televisual content over Internet Protocol-based broadband networks points to the likelihood of a gradual replacement of other networking infrastructures with IP-based networks; this is especially likely where most television viewers have already switched from broadcast to cable networks, and/or where broadband access is widely available and affordable (Australia may therefore lag behind in making such changes, due to the comparatively poor take-up of cable television and relatively high cost of broadband access caused by the suboptimal communications policies of consecutive federal governments). This adoption of IP technologies as the foundation of the network would mirror similar trends in mobile telephony, where recent and upcoming technology generations have similarly shifted to utilising IP for their baseline networks, turning voice data into little more than another form of data packets transmitted through the overall network.

Whether extracted from the overall broadband data stream through a splitter and set-top box, and redirected to conventional television sets, or whether received and displayed through dedicated computer software such as the recently launched Joost media player (developed by the programming team also responsible for filesharing software KaZaA and Voice over IP system Skype), IPTV networks in the first place do little more than replace one network backbone with another, however. Even a media player such as Joost constitutes simply a new form of personal video recorder (but is more limited in its functionality than conventional PVRs if it is unable to generate permanent local copies of the content available from the network). Notably, Joost does not introduce fundamental changes to the overall business model of television: while it is important to acknowledge that Joost is only available in a preview version at present, at least on the basis of that evidence, its implementation of Internet-based television remains highly conventional to the point of timidity. Channels available through Joost at this point focus mainly on specialty content from music videos to sports (including for example the American IndyCar racing series, and the National Hockey League Stanley Cup finals), and the system therefore has the potential to become a useful mechanism for the distribution of television content which due to its limited mass appeal may have difficulties reaching global audiences via conventional broadcast and cable networks. At the same time, Joost's inability to obtain global licences for much of the content on offer through its network counteracts such benefits to some extent – many of the channels listed in the player at present are accessible to North American viewers only.

This, then, points to the fact that even in spite of its use of Internet technology for its content distribution network, the Joost system itself maintains network bias in favour of its participating content partners. This is likely to boost its chances of attracting commercial partners – the contributors to *Wikipedia's* entry on Joost pointedly compare media conglomerate Viacom's participation in Joost with its request to *YouTube* to remove its

proprietary content from the site, for example, suggesting that Joost may appear to Viacom to be a significantly safer environment for its content (n.pag.) – but at the same time also means that Joost is likely to inherit conventional television's problems as it attempts to come to terms with a user-led, produsage environment. Joost continues to position its viewers as audiences; it provides little opportunity for their active participation, and instead re-establishes the closed, biased networks of television by fencing off its part of the open, neutral network of the Internet. Joost, in other words, drives the technological convergence of television and Internet networks while at the same time carefully avoiding any trend towards the convergence of television and online video media forms, or towards any institutional or cultural convergence potentially resulting from such developments. That said, it is important to note that while constituting a frontrunner in the field at present, Joost should not be seen as the only conceivable model for IPTV – more strongly user-driven models of IPTV are certainly imaginable (and Joost's own heritage in KaZaA and Skype highlights tantalising prospects of what may be possible if future versions of the software were to enable users to broadcast their own content into the Joost IPTV network, for example). As yet, at any rate, no more strongly network-neutral IPTV approaches appear to have emerged.

#### *Harnessing Video- and Filesharing*

As Pesce points out, the television industry model “as practiced at present” (and, by extension, also the current Joost and IPTV model) “can't effectively leverage the economic benefits of hyperdistribution, but that model was created before hyperdistribution was technically possible. The age of hyperdistribution demands the development of new economic models which can harness piracy, for profit” (“Piracy”, n.pag.) – or, perhaps more accurately, which can harness the technologies often developed and used for what the industry describes as “piracy”, and the social practices established around them, for legitimate commercial profit. If we have indeed entered into an age of hyperdistribution, in which users are increasingly active in accessing, evaluating, sharing, and redistributing even very large files of audiovisual content, then this does create new opportunities for the producers of television content to deliver their programmes to audiences, and even to harness such audiences for the further redistribution of content. Such tendencies are now visible for example in the growing experimentation especially by U.S. networks with making available their popular television shows for direct download from their own sites or through services such as iTunes; in Australia, too, some networks (notably, the ABC) are increasingly active in providing their shows to viewers in video podcast form, and famously, the British Broadcasting Corporation has even launched its own *YouTube* channel.

We are also likely to see further experimentation with the use of BitTorrent and other state-of-the-art filesharing technologies as a means of effective content distribution, following similar developments in the music industry where labels such as DGMLive now sell torrent access through their Websites. The technological features of BitTorrent mean that such

approaches effectively constitute an outsourcing of part of the distribution effort to audiences – a process of what has been called “crowdsourcing” – as any content customer also becomes a potential source from which further customers may be able to download parts of the desired content, even while the personalised, unique torrent file required for access to the content is available only for purchase from the original content source. At the same time, it does remain possible for users to re-torrent the downloaded content, thereby undermining the content producer’s revenue model – the success or failure of such models therefore depends in good part on the honesty and loyalty of a sufficient section of the userbase, which may be easier to obtain for niche and specialty content than it is for mainstream media fare.

The financial sustainability of such models remains in some doubt, then, and comprehensive analyses of the strengths and weaknesses of direct distribution and crowdsourcing models have yet to be undertaken (notably, two examples cited above – ABC and BBC – are public service institutions and therefore partially quarantined from commercial considerations). As Pesce points out, “today the broadcaster aggregates audiences, aggregates advertisers, puts commercials into the program breaks, and makes a lot of money doing this. But ... wouldn’t it be economically more efficient for the advertiser to work directly with the program’s producer to distribute television programming *directly to the audience*, using hyperdistribution?” (“Piracy”, n.pag.) The answer to this question would require a cost-benefit analysis of conventional and new models which takes into account factors such as

- continued advertising income from commercials inserted into downloadable content, and from general Website advertising,
- direct pay-for-access fees, including potential premium fees for commercial-free versions of the content,
- additional income from content which could not have been broadcast on conventional networks due to scheduling limitations or limited mass appeal (a long tail market),
- cross-promotion effects for content shown on conventional television channels,
- savings resulting from the ability to potentially bypass broadcast or cable distribution altogether,
- additional revenues from sales to a potentially global audience, but also
- reduced revenue from global syndication deals,
- a potential decline in advertising on traditional television channels,
- losses from the unauthorised redistribution of downloaded content,
- the uncertainty of content success or failure in an unknown environment,
- and the likelihood of increased competition with other commercial and enthusiast content creators.

In evaluating such new models, it will also be important to question common wisdom in the television industry – such as the assumption that heavily “pirated” content will



necessarily fail to generate profits. By contrast to such claims, for example, even in spite of its prior availability through filesharing networks, “from its premiere, *Battlestar Galactica* has been the most popular program ever to air on the [U.S.] SciFi Channel, and its audiences have only grown throughout the first series. Piracy made it possible for ‘word-of-mouth’ to spread about *Battlestar Galactica*” (Pesce, “Piracy”, n.pag.). Similarly, much of the commercial content shared without authorisation on *YouTube* is likely to attract audiences to the original sources (from vintage episodes of *Monty Python’s Flying Circus* to the latest updates from *The Daily Show*), rather than result in lost revenue. “Why has YouTube become the redistributor of these clips? Because none of the copyright holders made an effort to distribute these clips themselves. YouTube has been acting as an arbitrageur of media, equalizing an inequity in the market place” (Pesce, “Hypercasting”, n.pag.) – once again, therefore, *YouTube* can be seen as a corrective to the in-built bias of conventional television networks, and by uploading content to the site (legitimately or not), its users are increasingly forcing the hand of the incumbent TV industry as it struggles to come to terms with the network-neutral produsage environment within which it finds itself. In the process, they are also increasing the value of the content thus shared, however: “the fundamental paradox of hyperdistribution” is that “the more something is shared, the more valuable it becomes. Take *The Daily Show* off of YouTube, and fewer people will see it. Fewer people will want to catch the broadcast. Ratings will drop off. And you run the risk of someone else ... filling the gap” (Pesce, “Nothing Special”, n.pag.).

This, however, also applies to content not originating from within the incumbent industry itself – content generated by users acting as producers themselves, from the notorious “Diet Coke and Mentos” video clips shared through *Revver* to amateur soap operas and Machinima videos, is similarly able to attract large audiences through videosharing sites and filesharing networks. By placing professionally produced content alongside the produced material of amateurs, then, such sites and networks, and the corporate content providers now beginning to explore their potential, contribute to the gradual erosion of existing boundaries between professional and amateur content – a common phenomenon in produsage environments. This may allow for the emergence of new content genres to wider recognition, as well as for the discovery of new on- and off-camera talent, and could therefore also be seen as a pathway into the industry proper, similar to (but offering a significantly wider intake than) short film competitions and other events. In analogy to similar Pro-Am developments (see Leadbeater & Miller) at the overlap of production and produsage models in open source software development, citizen journalism, and elsewhere, it may also herald the development of new hybrid television models updating the community television ethos for the network age.

A further corollary of the trends towards IP-based television and the harnessing of sharing communities and networks is the likelihood of an increased disconnect between live and prerecorded content in television. The conventional television model (whether utilising broadcast and cable, or relying on Joost-style “walled garden” IPTV networks) is less than practical for making available content which has already been recorded and packaged –

especially where fast and affordable broadband is available, it will be more convenient for users to download programmes in their entirety to watch at their leisure than to access them in streaming media formats (including the quasi-streaming media format of terrestrial or cable transmission). In essence, as soon as broadband speeds are such that it takes significantly less time to download a show than it takes to watch it, the on-demand download model with its increased time- and space-shifting affordances offers a vastly more flexible choice. Download options are necessarily not available for live or near-live content, on the other hand (such as news, sports, and some forms of reality TV), and here, conventional television as well as IPTV networks retain an inherent advantage over other media forms. If direct download and filesharing models can be shown to be financially sustainable, then, this may ultimately even lead to a bifurcation of the television industry into live broadcasting (which may well find increasing commonalities with industries staging sports, musical, and theatrical events) and drama production (which is necessarily closely aligned with the movie industry), with these two components gradually drifting apart as the medium which once held them together, broadcast and cable television, declines in importance. Simultaneously, we may see the emergence of new direct-to-download drama production houses, and direct-to-streaming live channels, which can no longer meaningfully be said to belong to the same overall industry. Notably, however – provided that fast and cheap broadband is widely available – both sectors no longer rely on conventional terrestrial and cable networks, ultimately allowing for a disintermediation process which would see the gradual demise of broadcast transmitters and cable operators as their networks are replaced by the Internet as a common communications carrier.

### *Harnessing Users as Producers*

The third major strategy available for television in a produsage context is to engage more directly with users as producers themselves. This strategy operationalises the weakening of the boundaries between professional and amateur content by issuing a direct invitation for users to become content producers and to contribute that content to hybrid, Pro-Am projects; in essence, therefore, it builds on the *YouTube* model of developing a videosharing community, but directs such efforts more clearly towards set goals shared between professional and amateur participants – at present, such a model is most prominently represented by the progressive videosharing site *Current.tv*, chaired by former U.S. Vice President Al Gore. *Current.tv* has been noted most commonly for its operation of a related cable television channel in the U.S. and the U.K., which harvests and broadcasts the best material submitted to the *Current.tv* as rated by its users, but in light of the preceding discussion it is possible to suggest that to focus on the conventional television component of the *Current.tv* project would constitute something of an anachronism – while a useful incentive for attracting contributors, it is likely that overall, more users will watch *Current.tv* content through its Website than through the television channel itself.

It remains to be seen whether the *Current.tv* model can be applied to uses other than the sharing of relatively short-form, largely non-fiction video content, of course – the site only offers a very limited glimpse of potential futures for television, therefore. At the same time, it is also possible to suggest, however, that the core problem emerging from this discussion is that many new genres for audiovisual content in an Internet-based, produsage-driven environment have yet to be invented and identified: much as present-day drama programming did not arrive on our television screens fully formed, so are future genre innovations today at best waiting for our attention in the depths of *YouTube* and other videosharing sites. Further technological developments in content creation and networking will significantly aid such innovation and development processes, and the machinima phenomenon, which utilises in-game and external recording and editing tools to create elaborate, sometimes even long-form dramatic videos, may point the way for future developments: the first Internet television drama stars of Generation C may not be human actors, but their avatars in *Second Life* and elsewhere.

The role of *Current.tv* and *YouTube* in such developments also points to the processes of remediation which almost necessarily accompany the disintermediation observed above: *mutatis mutandis*, such videosharing sites (as well as filesharing networks) take on some of the traditional roles of broadcasters and network operators in the television industry. Similarly, the aptly named *Democracy TV* media player (now rebadged as *Miro*) serves as a client-side aggregator of video podcast feeds with some additional built-in community tools (including content ratings) – it enables users to collect the latest videos from a variety of their favourite sites as they become available, regardless of their commercial or enthusiast origins, and therefore further contributes to the erosion of professional/amateur boundaries. (*YouTube* could well offer a similar service itself, if it allowed its users to subscribe to incoming feeds to be aggregated on the site, in addition to creating outgoing feeds of *YouTube* content.)

*Democracy TV* also highlights the fact that the transformation of television may not end with the rise of *YouTube*, *Current.tv*, and other videosharing hubs, nor with the establishment of direct-to-streaming and direct-to-download offerings from the incumbents of the existing television industry. Instead, or in addition to such trends, further trends towards decentralisation are as likely here as they have shown to be for textual and audio content (and best recognised perhaps in the blogosphere) – for video content, therefore, we may well see a similar shift from compilation and collective hosting to syndication and aggregation. In this model, video content would be widely dispersed across the network, and its availability would be highlighted through frequently updated RSS-style content feeds; *Democracy TV* and similar services, as well as the video equivalents of *Technorati* and *Feedreader*, would provide the first ports of call for accessing such content. Coupled with content rating and recommendation systems which are already available today (which in combination result in the produsage version of a global *TV Guide*), such developments would help to fully establish the hypercasting paradigm:

when the brand-new power of the individual as broadcaster is reified by the capabilities of computing machinery to listen to and model our interactions, the result is *hypercasting*. This is what media distribution in the 21st century is inevitably hurtling toward, driven by the natural selection of steadily increasing informational pressure. (Pesce, "Hypercasting", n.pag.)

Does broadcast and cable television have a future in the age of hypercasting? Perhaps not. Will television as a cultural form survive? Yes, but most likely not without a transformation which will see it morph into a subset of the televisual, audiovisual practices and media forms collected in categories such as 'streaming media', 'video on demand', and 'downloadable video'. Such audiovisual media forms will span a continuum of content in which producers and producers, industrial and enthusiast participants co-exist and sometimes collaborate in creating, distributing, and sharing content. Whether such content is 'on TV' is unlikely to remain a key factor of distinction in this context, as alternative channels of transmission and distribution rise to prominence; generic and format features may instead come to the fore as means of making sense of the wide range of material becoming available to viewers.

The television industry in Australia and elsewhere (and in particular in those nations where fast and cheap broadband access is readily available) is now approaching a tipping point – even if it remains difficult to measure exactly how far ahead that tipping point lies at present. Beyond that point lies a substantial structural transformation of the industry, and an opportunity for new business models and content formats to emerge. The leaders of the conventional television industry appear to be increasingly aware of such threats and opportunities, as is evidenced by a number of recent trends – in the Australian context, for example, Network Ten (which in recent years has very successfully kept its corporate finger on the collective pulse of the youth demographic that is driving many of these developments) has variously focussed strongly on live broadcasts from *Big Brother* and *Australian Idol* to *Rove Live* and the AFL, heavily promoted its drama shows as "streamed directly from the U.S.", and has now begun to advertise *Download*, a new show which appears to tie directly into the produsage phenomenon by offering a best-of-*YouTube* adaptation of the *Funniest Home Videos* model. Additionally, many media corporations in Australia and elsewhere have increasingly hedged their bets by diversifying beyond television and investing in a variety of Internet and other digital enterprises.

Many such enterprises, and many of the developments by television incumbents, new Internet operators, and innovative user communities remain in an explorative stage at this point, but it is already evident that there is significant potential for fundamental changes to conventional broadcasting models in such developments. It is time now to explore the cultural, technological, and economic possibilities inherent in that transformation: to experiment with new professional, pro-am, and amateur audiovisual forms, to utilise new

means of distributing content to viewers, and to analyse the viability of such alternative models in comparison to the conventional television industry. The results may surprise us.

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