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4

Co-creative labour? (with Sal Humphreys)

‘Working for nothing’

As mentioned in the introduction to this book, in December 2006 *Time Magazine* celebrated the millions of people contributing to social network platforms that draw on user-created content by announcing ‘You’ as the person of the year. But this creative participation was not figured as simply play, consumption or entertainment. The *Time* article noted that these activities position creative consumers as ‘working for nothing and beating the pros at their own game’ (Grossman 2006). By describing this activity as ‘work’ questions are raised about the motivations and incentives of the consumer participants. Why are they contributing content to these commercial platform providers? Are they in effect working for free? Is this an outsourcing strategy through which media enterprises such as Auran and Maxis harness the surplus value generated by the work of these consumers-turned-producers? If so, are such media enterprises exploiting activities that more properly belong to a non-market and non-commercial gift-economy? Should we define these activities as a form of labour and what are the implications and impacts of co-creative practices on the employment conditions and professional identities of people working in the creative industries?

Do we, however, get any further in understanding co-creativity by assuming that the consumers are in some sense blind to the fact that they are working for corporate capital. This idea of co-creative practice as a form of labour often functions as a discourse where capital extracts surplus value and increases profitability by reducing costs and displacing labour. But these changes in the relationships among media producers and consumers, professional content creators and amateurs, may suggest a shift in which frameworks of analysis

and categories that worked well in the context of an industrial media economy are no longer helpful. Co-creative media production sits uncomfortably with our current understandings and theories of work and labour.

Approaching media consumption as a form of labour is not new. Dallas Smyth (1981) and Miller et al. (2001), for example, describe how the attention and activity of consumers generates value for the media industries, and they use the category of labour to ground a critical politics that shapes their analysis of these exchanges. In the context of new media, Lev Manovich (2001: 44, 109) argues that new media objects encourage an overlap between producers and users and asks how these dynamics are perhaps functioning to shift labour from the company to the customer and may therefore indicate a significant change in the relationship between the domains of work and leisure, the professional and the amateur. Manovich, however, does not assume that these changes are in any sense necessarily liberating, democratizing or exploitative. He carefully opens for our consideration a terrain of difficult and demanding questions without finally resolving or settling them.

As we have seen, Auran's and Maxis's pursuit of co-creative relationships unsettles industry production and project practice from a closed innovation model towards a more open and dynamic model. In the context of labour relations, this shifts our focus from concerns with the exploitation of consumer co-creators as free labour and the potential displacement of employed creative labour, which are themes pursued in much of the literature in the area. I argue that co-creative practice may work as a dynamic wrecker of industrial-era modes of production and associated business practices. User co-creation may not be best understood as a source of cheap content or unpaid and exploited labour. It may be more a dynamic mechanism for coordination and change that transforms business and consumer practices towards more open and distributed innovation networks. In short it may provide an opportunity to adaptively and experimentally explore how to build the smart rooms that Weinberger (2011) describes in *Too Big To Know*. Building these smart, distributed, networks requires professional skills and capabilities that may reshape workplaces and professional identities.

We need to move beyond commentary that frames user-created content that becomes commercially valuable as a marker of exploited labour in the mills of neo-liberal capital. These emerging hybrid relations cut across the commercial and non-commercial, social networks and markets. We have seen in the Auran and Maxis case studies that non-monetary, social economies play an increasingly constitutive role in monetary or financial economies: the making and selling of video games. But rather than assuming that the social has therefore become commoditized and reduced to bottom-line economic imperatives, I suggest that extracting economic value from such social relationships is a dynamic process which also potentially transforms

business practices. The rooms that are game development studios may need to look very different from industrial-era workplaces if they are to successfully harness these co-creative opportunities for mutual benefit. The co-evolution of these two economies (the social/affective and business) produce not outright exploitation of unpaid labour by capital, but a terrain of negotiated relations and transactions that are quite different from those of industrial-era production.

User co-creation and labour

The linking of the terms labour and exploitation is common in current literature (academic and non-academic) on the games industry and player labour – usually in ways that position the player creators as unknowing and somewhat blind dupes of the developers and publishers. Games studies scholars such as Yee (2006), Grimes (2006), Garite (2003), Kücklich (2005) and Kline et al. (2003) all suggest in varying ways that users are unknowingly seduced into activities of work. Kücklich (2005), for example, argues that industries' rhetoric of collaboration *masks* their profit-seeking motives (assuming perhaps that players don't understand the value of their contributions). Herman, Coombe and Kaye (2006: 204) conclude that playing in *Second Life* may well be a 'half-life' of 'corporate servitude' in which participants misrecognize their social relations as part of an intellectual property exchange.¹ These approaches assume that players are in some sense unaware that their participation is a productive practice from which firms extract economic value.

Critical scholars propose that rather than only constituting greater consumer agency, this harnessing of user-created content by media businesses extracts surplus value from the unpaid labour of the consumer co-creators as a form of outsourcing, and may therefore contribute to the precarious employment conditions of professional creatives (Terranova 2000, 2004; Scholz and Lovink 2007; Scholz 2008). Andrew Ross (2009: 22) argues that in social network content production platforms such as YouTube, Flickr, Twitter and MySpace 'the burden of productive waged labor is increasingly transferred to users or consumers' and asks us to consider what happens to labour and the labour conditions of professional creatives in the context of amateur created content. Ross comments that this 'free or cut-price content' is 'a clear threat to the livelihoods of professional creatives whose prices are driven down by, or who simply cannot compete with, the commercial mining of these burgeoning, discount alternatives' (2009: 22; also see Allen 2008 and Jarrett 2008b).

These co-creative relationships, however, cannot easily be reduced to corporate exploitation, and critics such as Ross seldom reduce the problem to one of such straightforward exploitation. The strength of Ross's work is that it

foregrounds the participants' complex negotiations of how the meanings and experiences of work and labour are changed and unsettled. In *No Collar: The Humane Workplace and Its Hidden Cost* (2003), an ethnography of Razorfish, a new media company in New York's Silicon Alley, Ross offers a compelling study of the informational economy workplace. He carefully maintains the uncertainties and contradictions in the creative workers accounts of both the potential to reinvent the meanings and experiences of work in a more creative and empowering direction, alongside their realization that this simultaneously may explain the fact that they often work incredibly long hours that encroach on their non-work lives.

The games industry does not have a particularly enviable record in relationship to working hour conditions. Labour conditions are known to be precarious, with workers often doing unpaid overtime, and working 80–100 hour weeks during 'crunch' times (IGDA 2004; de Peuter and Dyer-Witheford 2005; Deuze et al. 2007). The adoption of co-creative production happens in the context of a labour market where workers often struggle to maintain equitable conditions. Of course these uncertain labour conditions are not just characteristic of the games industry; they are a feature of the creative industries more generally (Ross 2000; Gill 2002; McRobbie 2002).

Even a cursory reading of Terranova's much-cited article 'Free labour: Producing culture for the digital economy' (2000; 2004) in which she identifies and grapples with the increasing reliance of creative industry enterprises on an unpaid, ad hoc network of voluntary labour, finds that she foregrounds tensions and contradictions as these 'productive activities . . . are pleasurably embraced and at the same time often shamelessly exploited' (2004: 216). She carefully maintains the complexities shaping co-creative relations by pointing out that this affective labour is neither directly produced by capital, nor developed as a direct response to the needs of capital. The process should not be understood as a straightforward incorporation or appropriation of the free labour of an otherwise authentic fan culture. Rather, as Terranova proposes, these dynamics reconfiguring relations between production and consumption are played out within a field that 'is always and already capitalism'; they are immanent to the networks of informational capitalism (2004: 80). This free labour has not been seamlessly appropriated but voluntarily given. The relations are much more nuanced and complex than the language of manipulation or exploitation suggests. Terranova writes, 'Such processes are not created outside capital and then reappropriated by capital, but are the results of a complex history where the relation between labour and capital is mutually constitutive, entangled and crucially forged during the crisis of Fordism' (2004: 94).

Here though labour is often used as a category to not so much describe the emerging relations between professionals and amateurs, or to consider

how and in what ways co-creative relations may indeed be reshaping and transforming media workplaces. Instead, it becomes an explanation in the form of critique, which seeks to unveil or disclose social forces that may be at work behind the actors' backs (Latour 2005: 136). I question this 'unknowingness' and suggest from my observations of negotiations within player communities and between players and game industry developers, that players and professional developers most often do know what they are doing and producing and the conditions under which they are doing it. The user-creators are often quite competent and canny participants in the making of these relationships.

A pressing issue in all of this is whether these particular theorizations of labour and work provide us with explanatory traction as we grapple with the various problems associated with co-creative media relations. Changes in the relations among media producers and consumers, as well as between professionals and amateurs, may indicate a profound shift in which our frameworks and categories of analysis (such as the traditional labour theory of value) that worked well in the context of an industrial media economy are less helpful than before. As John Hartley (2008) argues, applying the categories that are appropriate to the context of modern industrial economies with their divisions of labour and closed systems of applied expertise may well be a mistake. Trying to understand the emerging paradigm of knowledge production and circulation from an industrial model, including its categories of political economy, is a parallax error. These new and emerging co-creative relationships and the associated labour relations questions may be incompatible both analytically and practically with these former models and frameworks. Even after taking into account that ideas of immaterial labour, affective labour, free labour and precarious labour have been reworked through an engagement with the work of theorists such as Maurizio Lazzarato and Hardt and Negri, one has to question to what extent such reworkings give us tools to come to grips with the ongoing transformations associated with co-creative culture.² As Mark Poster (2006: 54–6) suggests, neo-Marxist production-based models of the economy may in the end simply and comfortably return the critique of capital to the labour process although that process is now expanded and redefined. Such critical perspectives do not come to terms with flows and exchanges of value that are very different from a simple displacement of traditional labour by unpaid creative labour. The modes of agency, social network practice and market-based enterprise emerging through these new relationships sit uncomfortably with our current understandings of industrial relations and organizations of labour. We cannot assume a labour theory of value in which the productive activity of users is simply exploited by enterprise to displace paid labour. We need models and approaches that can grapple with how economic outcomes sit alongside and co-evolve with significant social and cultural outcomes.

Part of the problem in all of this is perhaps the critical imperative itself. These critical approaches often position consumer participants as in some sense unaware that their participation is a productive practice from which economic value is extracted. If the participants express their pleasure or enjoyment in these exchanges this is then cited as just further evidence of their seduction in which the affective works to perhaps even more effectively entangle consumers in these webs of corporate servitude (Jarrett 2008b; Scholz 2008). In their analysis of the videogames industry, Stephen Kline, Nick Dyer-Witheford and Greig De Peuter (2003) argue that celebratory accounts of the democratization of producer-user relationships too conveniently overlook the complexities and contradictions surrounding the interests of corporations and consumers. In their analysis the gamers are 'at best, only very partially aware' (19) of these manipulative commercial and promotional dynamics. They add, 'Indeed, one of the main objectives of the games industry is to make sure that the player does not reflect on these forces' (19). Their central argument is that any empowering democratizing or participatory potential is 'shaped, contained, controlled, and channelled within the long-standing logic of a commercial marketplace dedicated to the profit-maximizing sale of cultural and technological commodities' (21). In all of this the critic seems to be guaranteed a position above the fray and blessed with an ability that is denied to the participants themselves, of seeing through the charade and identifying the 'real' nature of the unfolding relations. Even the far more nuanced account by Andrew Ross in *No Collar* (2003) uses this rhetoric of blindness – most explicitly in the book's subtitle referring to a 'hidden cost': hidden to all but the critical scholarly observer. The implication would seem to be that the account of the critical ethnographer reveals or discloses these costs that would otherwise remain undiscovered. The critical imperative can work to reduce the actors to informants who need to be disciplined and taught what they really are and what the contexts really are in which they are situated and exercising their choices. At the crux of this kind of analysis is an understanding of the academic as uncovering what is going on – lifting the veil from the eyes of otherwise hapless participants. Careful attention must be paid to how the participants themselves (both professional and non-professional, commercial and non-commercial) negotiate and navigate the meanings and possibilities of these emerging co-creative relationships for *mutual benefit*.

***Trainz* and the work of co-creating**

In 2003 Auran management carefully assessed that, based on the then sales levels and the problems encountered with marketing and distribution, the

costs associated with further internal art content creation at the scale required to support another release of *Trainz* could not be justified. The continuing commercial viability of *Trainz* relied on collaborating with the fan content creators. As Auran worked towards the next significant release, *Trainz Railroad Simulator 2004* (TRS2004), the decision was made to source new art content (locomotives models, trackside accessories such as station and factory models, and layouts) from the fan content creators. The Auran development team concentrated on introducing new core features and functionality including interactive industries, steam operations and a new scripted rules system that enables users to attach scripts to objects, controlling their interactions in layout environments. The inclusion of fan content with Auran's official release package was therefore a quite contingent and strategic response to a particular commercial situation. In his post to the third-party creator community, Lane suggested that as an open platform, evolving game *Trainz* would increasingly draw on the third-party creators for content. The Auran development team would therefore commit its resources to expanding the core features and functionality of the *Trainz* platform, while supporting the art content creation efforts of the player community. Over a series of posts to the private third-party creator forum area, Lane also raised the commercialization opportunities available to creators, although he emphasized that Auran would continue to support both freeware and payware creators.

By this time a number of fan content creation teams had formed, and Auran sourced much of the content for TRS2004 from these teams. For example, *TrainzProRoutes* (www.Trainzproroutes.com) a distributed team of approximately 24 fan creators from the United States, United Kingdom and Sweden, had collaborated on very popular, high-profile routes for *Trainz*, such as Clinchfield. They committed to create a route for TRS2004, 'Tidewater point'. The Razorback Railway team, led by Shutter, contributed an updated version of its popular Razorback Railway route (www.razorbackrailway.com). 3801's Robe River Iron and CeeBee's Highland Valley routes were also included. Strat provided Auran with his Big Boy steam locomotive and Jetstreamsky offered his Mallard steam locomotive. By the time TRS2004 was released in October 2004, 35 third-party fan creators had contributed content to the CD release and many fan community members had participated in the beta-testing process. The TRS2004 manual acknowledges this contribution:

The third party group involved with TRS2004 is possibly the first time a developer has utilized the talents of their community to assist so closely in creating a commercial product. The process was not without its pitfalls and problems, and there were many who found the going too tough. To all of you, especially those of you who have contributed product for the CD, we would like to congratulate you for a fantastic effort. Without you we simply couldn't have released TRS2004.

Many of the content creators were attracted to the TRS2004 program by Auran's promise that they would enjoy early access to builds of TRS2004 and, more importantly, to direct support from members of the *Trainz* team. The creators who were pursuing commercialization of their content also viewed it as a valuable promotional opportunity, as having their content in the TRS2004 release may encourage users to visit their websites and purchase their other content offerings. As the project progressed over the second half of 2003 it became increasingly difficult to meet the support expectations of the fan creators. We received many emails, forum requests and telephone calls from creators seeking advice and assistance from the Auran programmers as they worked to finalize their content and get it in before the deadline. These user-creators were finding that in one build-release of TRS2004 their content would work, and then in the next release it would suddenly no longer function. Frustration and anger was a common reaction from the fan creators. They were also expressing dissatisfaction with the tardiness of replies from the Auran development team. Some abandoned their projects, feeling that it was just not possible to meet Auran's commercial deadlines; after all, for many of them it was a hobby that they were pursuing on weekends and evenings after work. A few emailed Auran stating that it was no longer fun and was becoming more of a job, and therefore they had made the decision to resign from the group. They would still work on the content, but at their own pace and release the content, when it was ready, through Download Station. Influential creators were expressing concerns about Auran's management of the third-party content program for the TRS2004 project. In June 2003, Prjindigo emailed that the code builds they were receiving in order to test their content were 'incapable of doing the testing and creation that we need to be doing'. He added:

The lack of flexibility in scheduling that has been indicated to us with totally impossible fixed deadlines and a half-way announced inability to get us a working version of the first beta to do content for one week before it goes to full beta are real turn-offs to the content group . . . The larger proportion of the 3rd party group expected a more smooth and fair treatment in the concerns of time to build and time to test than this schedule has compressed upon them.

His main concern was that the content creators were not being provided with the level of information and support that they needed.

Members of the Auran development team, particularly Rob Shaw, worked closely with many of these creators to ensure that their content meshed with the final TRS2004 build. A few of the creators even arranged to take leave from

their employment over the closing stages to ensure that they met the Auran deadlines. But the Auran developers were not effectively following through on their commitments to support the fan creators' efforts. The developers' expectation of working closely with such a large group of fan creators on such a limited project timeframe was ambitious, if not unrealistic. Auran management significantly underestimated the level of support that many of the creators needed. But from an Auran business perspective, the project was a success. Many of the creators were also very happy with the outcomes and continued to be an integral part of the ongoing *Trainz* project continuing to create and release content. When TRS2004 was released, the package included outstanding, high-quality content provided by the user-creators. For example, the box art for the United States release package featured the Union Pacific Big Boy, and the United Kingdom box featured the Mallard. Both steam locomotive models were an outcome of the collaboration between fan creators and the Auran development team.

In an interview with me in mid 2004, the TRS2004 producer acknowledged that there were serious problems with Auran's support for the fan creators. However, he considers this was largely due to the level of resources and time the team had to complete the project. I asked him: 'After the experience of working with integrating fan content for TRS2004, do you think this is a good idea? Do you think it is an approach we should still take with future versions, relying so heavily on fan content?' He replied:

Sure it was a problem. We could have done it better, but I think we did a good job considering the resources and time available. The creators, they really needed a larger window of time, towards the end of the project when the code was locked down, to finalise their content and work with our guys on that. It was just too big an ask, expecting them to be making content for a code platform that we were still working on, changing and updating; especially on our commercial time-frames. But we just didn't have that time to make available, we had commitments to publishers we had to hit. Do I think it is a good idea to involve the fans in dev and production? Sure, I mean as long as we do it right and put in the resources, make the time available . . . So although, as you know, I wasn't too happy with how we did it for TRS2004, yeah I think it is still worthwhile.

This reconfiguration of production involving an increasing interdependence between professional developers and the user community does not involve a lack of knowledge on the part of the professional workers or the fan content creators. For example, I circulated an earlier version of my account of the P10 steam locomotive, described in the previous chapter, to members of the *Trainz* fan community, including the creator Marlboro. He responded by

email, commenting on the use Auran made of his P10 model at the NMRA convention:

When the forum bush drums reported the NMRA appearance I frowned a bit – wasn't that use for commercial purpose . . .? But as I said, darn, I was proud when the news came in.

Well, frankly my feelings towards Auran were always mixed. Since I worked in the industry (automotive) I thought I understood the undercurrents a project like *Trainz* had to impose on Auran. On one hand I admired the guts to approach a niche market, the concept of customer communication, support, innovative ideas, etc. On the other hand I thought to see through a thin veil the attempt to exploit the community.

Marlboro's email expresses the tension between his enthusiasm and passion for this co-creative initiative, and his suspicion of Auran's commercial motivations. He confronted some difficulty in considering these tensions when deciding how to distribute the P10 model:

As probably most of the contributors did, I went through the thought-cycle of how to distribute the finished product under the Steamz (TM) name – freeware, shareware, donation ware, through Auran . . . make no money, recover cost for cigarettes, aspirin and the divorce lawyer, make real money (but if you crunch numbers – even in an optimistic way – you never come to riches). I'm not sure where I stood in that process – probably CDs against shipping and handling. However, even if you take only a dime you take the responsibility for a flawless product . . . and concern about customer satisfaction might convert a hobby into a burden.

For a while I kept building a few more engines – my German and Austrian phase. However those went out to only a handful of friends I acquired during my time on the forum. Probably this is the part I'm most grateful for towards Auran – having provided this unique opportunity to make friends I still have close contacts with – one of them I visited in Europe recently. I admit, I felt some short-lived childish glee when I saw those screenshots pop up in the forum. (8 August 2003)

Marlboro raises many of the controversies and conflicts that have shaped the *Trainz* third-party content creator network, including the intellectual property status of fan content. These divisions and conflicts were not simply an opposition between the corporate developer and the fan creators, but were just as much played out among the content creators and the wider *Trainz* fan community. For example, one of the more divisive issues was the status of fan payware. When fan creators such as Landrvr1 announced plans

to commercially release their models as payware, they were answered with both supportive and hostile forum posts. Some fans commented that the creators deserved compensation for efforts that provided many users with pleasure and enjoyment. Others argued that hobbyists should not be selling their creations to other fans as this would undermine the open collaboration and sharing that characterize a fan community such as that around *Trainz*. They believed that such hobbyist content should be distributed only as freeware. They were expressing anger and hostility towards the commodifying of what they considered to be a cultural and community domain. Others pointed out that *Trainz* was always a business and therefore what was the problem with particularly talented creators profiting from their endeavours. Auran regularly received emails protesting that payware creators should not be permitted to make posts on the forum promoting or previewing their payware content releases. Such posts are viewed as marketing and advertising on a community forum, and therefore should be deleted. Auran's position was to support both payware and freeware creators. Auran management had no objection to creators taking the step of commercializing their efforts. Many payware creators also provide free content downloads. With this in mind, and in an effort to resolve the continuing dispute, Auran opened a payware forum area, directing fan creators to make posts relating to their payware offerings only in this area. This immediately prompted a renewed outbreak of the payware versus freeware debate. Some posters felt that by opening this area Auran was openly encouraging payware creators and that this would result in a reduction in the amount of freeware content available. This did not happen; most of the content released continued to be freely available through Auran's Download Station. But the payware versus freeware argument continued to be a divisive issue.

Disorganized networks

After reviewing the TRS2004 third-party program outcomes, Auran management decided to continue integrating fan content with official *Trainz* releases. Following versions, *Trainz Railroad Simulator 2004* and *Trainz Railroad Simulator 2006*, prominently featured user-created content. Some of these groups produce models of an exceptionally high quality and have successfully made the transition from hobbyist teams to semi-commercial enterprises, releasing retail content expansion packs.

The *Trainz* development team identified that trying to work with the large group of fan content creators in the TRS2004 project resulted in frustration, misunderstandings and communication problems for both the fan creators and the Auran team. The group was just too large to manage and support

effectively. Auran management therefore decided to reduce the size of the third-party program fan group and disbanded the official third-party content creation program, to be replaced by a new *Trainz* Partnership Scheme. Direct support from the development team was limited to select groups of creators who submitted project proposals that were approved by Auran management. By working with a smaller number of organized creators, the development team argued they could carefully and selectively focus their support efforts. But this decision meant they were unable to continue providing direct support for the broader fan content creator community. Auran effectively endorsed an elite tier of fan content creators who enjoyed access to greater levels of direct support and information. Auran is the gatekeeper, restricting access to early builds of changes and updates to the core *Trainz* platform. Fans continued to create and release content (both freeware and payware) without being members of the *Trainz* Partnership Scheme. Auran continued to support these various releases with updated content creation guideline documentation, and also improved the Download Station systems and associated utilities, making them freely available to all creators. Additionally, Auran employed Lance Jago, Henk Plaggemars and other members of the *Trainz* online community to work on the project, supporting the efforts of fan community creators.

Some fan creators expressed immediate concern and disappointment about Auran's decision to disband the original third-party support group. Magicland posted to a thread: 'Personally, I was surprised when the 3rd party group was disbanded, as originally the concept (or at least my understanding of it) had been to forge a closer working relationship with Auran, with better access, feedback, etc., and then it turned out just to be a factory for TRS content which shut down when that shipped' (4 June 2004). Others expressed similar views in forum posts and emails.

Some creators felt they had been 'burned' by their previous involvement in the third-party content creation program. The message came through that they were 'let down' by Auran's failure to provide them with the promised levels of support. Many raised the worry that this scheme was really about supporting commercial, payware content-creation teams at the expense of the many hobbyist freeware creators. The *Trainz* development team on the other hand argued these changes meant they could more accurately assess support needs and better identify those projects that they were in a position to actively support.

At this point I focus on an objection raised by Magicland, a fan content creator: 'Auran mentions "organized groups", what about disorganized ones? I, under the auspices of ProTrainz, have worked collaboratively with several other content creators. Indeed, if it weren't for the scriptwork of Marinus and DavidT, many of the fine new scripted features which ProTrainz latest releases feature wouldn't be possible.' Here Magicland is raising the point

that, to date, as we have seen in the earlier descriptions of the fan content projects, the making of content for *Trainz* has relied on a loose, distributed and ad hoc network of creators collaborating and sharing ideas with each other and with Auran's professional developers. These distributed networks do not necessarily seamlessly integrate with industrial models of firm project schedules and requirements. Marlboro, the creator of the P10 sums up these dilemmas well:

Well, a sound corporate course is plotted. Never had any doubts that Auran would think or act any different from any other commercially driven entity. They got to this point by utilizing hundreds of thousand of free hours provided by the community (be it 3rd party, beta, whatever) . . . but it was always obvious that that ain't good enough for a 'corporate' future. Support for the ever-increasing complexity cost money, as it was mentioned above, and this ain't a family business. As with all corporate decisions you need to check your individual position. Lead (few of us are on the board of directors), follow (if you can identify yourself with the course) or get out of the way. For me it's a game, a hobby and mostly fun. If there is corporate background noise – fine. But if that noise levels increase too much it's time to tune in a new station. I hope that any of the 'newly' formed groups is following the corporate spirit and has an accountant on board. So, I don't see my seat on the train going in the new direction. ('Moving ahead with 3rd party support: The Trainz Partnership Scheme', 25 June 2004)³

By exclusively shifting their support to what the Auran developers called 'organized teams', did they perhaps miss the advantages and benefits obtained from the more disorganized and ad hoc network effects? They perhaps also fundamentally misunderstood the nature of these emerging network relationships that were generating knowledge, learning and content for Auran.

These ad hoc co-creator networks are more than capable of the kinds of distributed collaboration that will produce the valuable outcomes that both Auran and the user-creators sought. As we've seen with the fans' effort of introducing steam locomotives, this kind of collaborative effort was happening on a regular basis. The problem here is that such disorganizations did not fit comfortably within the frame of Auran's corporate project schedules or the regulatory regimes of intellectual property rights and contractual law. They're unruly and disruptive. They challenge our understandings of what a software project is and how it should be managed. But are we seeing organizational forms and practices emerging that seek to coordinate precisely these kinds of distributed project relationships? These organizational transformations raise pressing questions about how work is now organized and for the identities of the professionals contributing to the making of these distributed networks.

The content creators' views on Auran's plans were varied: there was no singular *Trainz* fan position on these issues. For many, these creative activities emerge from their shared passion for trains and rail: for others it concerns the satisfaction derived from carefully crafting a detailed model, or the social status gained within the *Trainz* community for freely sharing their creations. For some, it also offers a pathway into paid employment as we have seen with Rob Shaw. In some instances, this productive activity is freely given. Others pursue the commercial opportunities that are available for their creative endeavors. The intersection of these diverse practices and interests that constitutes co-creative culture generates conflict and tensions concerning how the rights to material are to be negotiated and who should have access to information and support. Auran's ultimate concern is profitable business outcomes, and this means production processes that are carefully managed. Many of the fan content creators, on the other hand are motivated by their passionate investment in trains and rail and by the social rewards that are associated with their position as high-profile creators in the fan community. The ways in which these different practices and understandings come together are uneven and even conflictual. The Auran *Trainz* team itself was far from united in its understanding of this collaborative production process. Producers, programmers, artists, community development managers and CEOs often have very different understandings of how the relationships should be managed. The fact that the work of the fan creators on the *Trainz Railroad Simulator 2004* project did not entirely mesh with Auran's project schedule points to how these user-creators can be unruly and guided by their own interests and agendas. But it is from these uneven and messy practices that co-creative culture is being made.

Bruno Latour (2005: 11–12) reminds us that in situations of controversy 'where innovations proliferate, where group boundaries are uncertain, when the range of entities to be taken into account fluctuates' then we must not

limit actors to the role of informers offering cases of some well-known types. You have to grant them back the ability to make up their own theories of what the social is made of. Your task is no longer to impose some order, to limit the range of acceptable entities, to teach actors what they are, or to add some reflexivity to their blind practice.

We need to carefully consider how the actors themselves, both professional and non-professional, navigate and define these relationships that I'm describing as co-creativity. I agree with Gill and Pratt's (2008: 18–20) provocation that when considering questions of creative work and labour we need to pay more attention to the *meanings* that cultural workers give to these activities themselves. We also need to extend this to the meanings

co-creative consumers also give to these activities, and suggest that we perhaps also should consider how these activities and their meanings can be understood parallel to (or beyond) categories such as work and labour. These forms differ from those of traditional labour relations in industrial-mode economic production.

The shape of new labour relations?

Co-creative relations do not only statically reallocate resources across markets and non-markets, firms and social networks. The cultural economics at work concern dynamic and self-organizing networks that generate opportunities for growth, change and innovation. This is not just about user-created content as an outsourcing of labour costs and an associated displacement of paid labour; it is not simply about optimizing allocative efficiencies within the labour relations and productivity frameworks of industrial economies. More provocatively, it focuses our attention on how co-creative relations introduce organizational change and market growth. The value flows here then are not just about cheap labour and content but about integrating and coordinating innovations that upset and disrupt established industrial economy business models and project forms (Cunningham 2006: 33–8). This is not to deny, however, that exploitation occurs in the videogames industry and in the relationships between media enterprise and co-creative consumers. As we witness and experience increasing pressure on job security we need to keep posing the difficult questions about sustainable and rewarding livelihoods. Critics such as Andrew Ross unsettle and challenge us with timely reminders that the jargon of creativity and innovation can too easily become platitudes corresponding to a troubling cookie-cutter policy mentality. In her recent book, *Venture Labour: Work and the Burden of Risk in Innovative Industries*, Gina Neff (2012) provides compelling research of workers in 1990s internet start-ups to pose important questions about the links between shifting risk towards workers as a form of entrepreneurial labour that is important for stimulating innovation. But at the same time how should we create sustainable work environments for these creative workers. She asserts: 'The trick for future media and business revolutions will be to find ways to support venture labor, so that innovative and creative jobs can also be stable and good jobs' (165).

As we have seen for some of the developers at Auran, especially the project leads and producers, the co-creative relationships with the *Trainz* fans was an added burden to an already overcommitted workload. Work such as Ross's and Neff's reminds us that these networks are also workplaces that provide the livelihoods for creative workers. The professional craft-skills of these workers are also central, I argue, to the viability and sustainability of these emerging

co-creative networks. Building the smart rooms and networks that Weinberger (2011) suggests are transforming our very knowledge institutions, requires us to pay serious attention to the identities and working conditions of these professionals. But we also need to question whether the categories of political economy critique are up to the job of grappling with these challenges.

This research with Auran and the *Trainz* fan community demonstrates that gamers are not only well aware of the value they create; they are also sophisticated practitioners who participate in the production network. The player creators tend to strategically use terms like labour and work at the point at which they have begun to feel that the terms of the exchange are unfair and their motivations for participating are not being satisfied. Sometimes it was at the point that the rewards and value of their participation were not fairly recognized by Auran. But it is important to also note their sense of discomfort and uncertainty about using concepts of labour and work to understand and assess the value which they contribute as their motivations are mixed – some are more likely to subscribe to discourses of creativity and art that position their activities as arising from passionate interest and needing only the intrinsic and social rewards of the social economies, while others emphasize the potential to pursue commercial opportunities.

The fan creators' refusal to fit Auran's corporate schedules also unsettles and disrupts our assumptions about relations between experts and non-experts in the production of cultural products. What would it mean to radically reorganize the development process and associated organizational structures to account for and support the fan content creators' contributions? How would it transform relations among experts and non-experts, professional and non-professionals? For corporations, the use of terms such as labour and work implies obligation, contracts and formalized, regulated relationships with producers, which are institutional forms that do not necessarily fit with co-creative production that is more ad hoc and fluid. However, while the current institutional forms may not comfortably fit ad hoc co-creative networks, this does not necessarily imply that there are now no obligations for the firm to meet in relation to both user creation activities and the working conditions of professional creatives. We need to explore what new forms of obligations and accountability a firm might accrue when it engages with user-creators and professional creatives across the financial and social economies of co-creative production.

How can we better understand the transactions and exchanges that characterize these relationships and unsettle our current frameworks of work and labour? As Nigel Thrift (2006: 295–6) argues co-creative relations indicate a profound and 'general change in how and what constitutes the value form' that exceeds our current understandings and arrangements of labour at work. I pursue these questions in the following two chapters.