4

CIRCULATION

Monitoring, Measuring and Adapting to Transnational Markets

In this chapter we move beyond the (initial) production stage to examine the implications of platform logics and the networked capability of game devices for our understanding of the circulation of digital games. Circulation was identified as a core part of capitalist production by Karl Marx. For Marx (1976 [1867]) the circuit of capital involved both production, distribution and circulation spheres, and circulation was the phase when commodities were bought and sold and surplus value was realised. From these profits capitalists generated profits and reinvested some of this in the purchase of labour power and the means of production to continue the cycle. Circulation incurs costs and capital searches for the cheapest means of communication and transport to overcome space. The development of the information economy has brought renewed attention to the circulation phase and the nature of material and immaterial commodities. The information economy challenges us to rethink the production and circulation stages of information goods and services, and the contribution of information workers and information consumers to value generation. It also challenges us to think beyond the market and monetary value creation to explore the creation of other forms of value.

Information economy research has noted the increasing ratio of workers in circulation to those in production in many sectors. Some theorists have argued that significant innovations can emerge from within occupational roles at this stage of the production cycle. Further, a focus on this stage in the cycle enables us to explore the contribution of non-technical forms of knowledge to value creation (Preston, Kerr and Cawley 2007). Indeed, even in very small companies, a focus on the circulation stage enables us to examine the many ways in which consumer and market knowledge, rather than research and development, contribute to service innovation and development. New forms of data gathering have only intensified the consumer and advertising influence on content production. The concept of the

circuit of capital, and of circulation, have been explored in relation to digital media generally (Jarrett 2016, Fuchs 2013, Dyer-Witheford 1999), and in relation to digital games (Kline, Dyer-Witheford and De Peuter 2003; Kücklich 2005; Kücklich 2009). In this work the unpaid reproductive labour, and unpaid user labour spent producing content and data, are crucial to understanding how profits are made in the informational economy. In this chapter we will explore some of the processes, professional work and player labour involved in the circulation phase of digital games in the networked age. This is not to suggest that those at the creation stage of cultural production are less important – but rather to argue that in the networked age the services that support and encourage the circulation of content may be as important to the financial and cultural success of a digital game service.

Linear models of cultural production still shape much academic and industry thinking about cultural production. In Ryan's (1992) book on capitalist forms of cultural production he argued that the key stages were creation and reproduction. For him, these were quite distinct organisationally as workers in the creation stage had more creative autonomy when compared to workers in the reproduction stage. Hesmondhalgh (2007b), adapting the work of Ryan, identifies the stages of cultural production as creation, reproduction and circulation, with retail, exhibition and broadcast coming later. For him circulation includes marketing, publicity and distribution, although these stages overlap. More recently, he has emphasised the increasing role of marketing and market research in terms of overall expenditures on cultural production and its increasing influence on content creation and conception (Hesmondhalgh 2013). For Hesmondhalgh, this signals the increasing rationalisation and management of creativity.

The emergence of digital distribution and digital platforms in the last decade has removed reproduction as a stage in the production cycle, and reduced the distributional costs of reaching markets. As we saw in previous chapters it has had a significant impact on games production and game financing. In this chapter we are concerned with how digital distribution has been exploited to reshape marketing and introduce some new processes that bring companies and players into increasing and ongoing contact. These processes go beyond traditional conceptions of marketing and are focussed on stimulating, controlling, supporting and adapting the relationship with the player. These processes are an important part of the 'culture of connectivity' to scholars like van Dijck (2013), and of participative online cultures for Jenkins (2005). Indeed, in a later text Jenkins et al. (2013:1) spoke about the development of spreadable media as an 'emerging hybrid model of circulation' which was both bottom up and top down. For online content creators and for those who study them, paying attention to circulation and the practices within it are key to understanding cultural production in the networked age.

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In the late 2000s I conducted a survey of workers in the digital games industry in Ireland. The findings indicated that the numbers employed in occupations related to circulation were increasing, and new occupational roles were emerging. I followed up the survey by interviewing those working in marketing, community management

and localisation. It became clear that new processes were emerging which go beyond conventional marketing and any mere technical sense of distribution. These processes often contributed player knowledge that could be used to change aspects of the core content, extend its lifecycle and contribute to the development of new roles for game players. For example, the insights gained from the analysis of automatically gathered gameplay data are often used to justify content changes. Similarly, feedback gathered from community support teams, localisation teams and player-generated content can be used to reshape content to optimise revenues. Understanding the circulation stage is crucial to understanding how digital games create recurring revenues and how fostering non-market value and affect (e.g. often through community activities) are part and parcel of the generation of monetary value.

While circulation processes are changing to some degree across all the production logics we examined in the last chapter, circulation has become most central in the platform logic. The development of online games and free-to-play business models has given rise to new central brokers and new professions. Within the platform logic we are seeing a reshaping of marketing and localisation and the emergence of new forms of player monitoring, measurement and support. New marketing techniques are consolidating the importance of that function in the cultural production process, while teams of statisticians and data analysts are emerging as a new locus of power. Data, metrics and algorithms are enabling the adaptation, targeting and individualisation of game services towards niche, high value players. In addition, giving players the tools to generate and share their own content has given rise to new possibilities for open innovation and new challenges. Player-generated content and content modifications are encouraged, and more recently the rise of streaming and player performance has emerged as new forms of player-generated content. In the platform logic we see business models that valorise sharing, connecting, posting and playing because companies must generate value from these practices to survive. Certainly the professional creators of games as a service are facing increasing pressure from marketing, metrics, community managers and players as content is continually updated, patched, extended and reshaped. In some companies it is undeniable that the creative autonomy of the symbol creators has been reduced. This chapter will focus on five sub-processes in the circulation stage, namely: design and metrics, marketing, community management, localisation and player-generated content. In each of these areas it will become clear that in the networked age circulation should demand as much of our attention as initial production, and processes of circulation are undeniably playing a role in reconfiguring cultural productions.

4.1 Design and Metrics

Cultural products are 'experience goods' according to some scholars (Tschang 2005) and it has long been argued that it is hard to know what types of experiences people want and will pay for. Many cultural industries deal with this

uncertainty of demand via the development of brands and franchises, the use of licenses, imitation of existing content formulas and a system of reviewing and critics. Some of these strategies exist in games but we can also identify some digitally native strategies including the marriage of online technologies and user monitoring techniques to inform service development. We briefly introduced metrics as part of the production lifecycle in the last chapter but in this section I want to explore their use in more detail.

More and more game projects and companies are developing metrics to analyse data gathered automatically via proprietary or third-party platforms to tailor game content both during development and post launch. Sometimes, production involves developing a minimal viable product (MVP), and then testing or soft launching in one market, gathering player data and then iterating the game. Game developers sometimes release an alpha version of their game via an early access programme. Early access programmes enable developers to present a pre-launch stable version of their game, receive feedback and in some cases get an early injection of money. New features can be tested and critiqued. Game developers can also build awareness and reputation around their early access games and via development blogs, livestreaming and Twitter. If a company has raised money using Kickstarter their supporters are waiting for news and small rewards. These emerging forms of open development combine player metrics gathered by the platform with qualitative feedback gathered via forums and social media to inform future design choices. During pre-launch, launch and post-launch, (technical) network services, marketing, metrics and community management are active even if they are not fully staffed. Even in the smallest companies, it is important to have staff members who monitor feedback and communicate with funders/players.

For most companies aggregated feedback is more useful than individual feedback (Bolin 2011). It is the generalisable patterns, much like aggregated audience and sales data, which is useful. However, with free-to-play games individual player feedback is also useful, especially if they are paying customers. As with much feedback, it also seems to depend to what degree the project team is able to act on the data. Project teams need to have the statistical and analytical skills to extract insights that can inform business and design decisions, as Kelleher, Mac Namee and D'Arcy (2015) note. While some of this work is automated, not all of it is. Below is an example of a job advertisement for a product manager at a cross-platform games company and it gives some insight into the new roles that are developing, their location between the creatives and the managers and their input across the stages of production.

> We are on the hunt for a data driven Director of Product to work across multiple titles inside Digit Game studios and act as Lead PM on our newest title. The successful candidate will use their exceptional grasp of game mechanics combined with a detailed understanding of data analysis (including A/B testing) to influence the overall product strategy.

> Leading the Product Management function, you'll interact with the senior team, game design team and data engineering teams to help design, guide and define the products we create. You would also be a central touching point for our publisher so the ability to communicate and build relationships is essential.
>
> A hybrid role with the need for deep analysis on data and the high level understanding of product strategy, the right person for Digit will be able to operate at all levels of the product lifecycle. Happy to spend days digging into data, followed by days working on design specs for new features. This role will own the product roadmap, reporting to the CEO and ensuring that priorities are driven with commercial goals in mind. (Posted, August 2015. Company website, accessed August 2015)

Certain sub-sectors of the games industry are increasingly basing their design decisions and certainly their incremental innovations on both implicitly or explicitly gathered player data. In social network games metrics often play a fundamental role in design, and industry personnel now talk of metric driven design (Elliott 2010). This is especially clear in free-to-play social network games. Brian Reynolds from Zynga has spoken about how they divided players of *Mafia Wars* and tested the accessibility of up to seven tutorials on them (Elliott 2010). With games like *Farmville* and *Mafia Wars* Zynga epitomises the metrics driven approach to game design. At the same time, Zynga might not be the best example. Established in 2007, and taken public in 2011, by 2015 the company was suffering from an overreliance on a limited number of titles and a marketing and monetisation strategy that was overreliant on Facebook. Similarly, Rovio, creator of *Angry Birds*, has gone through a difficult transition away from premium business models and towards free-to-play and in-game advertising. For Valve's Mike Ambinder, design is really about testing hypotheses. In a presentation during a Valve Developers Day in 2014, he talked about combining traditional playtesting and questionnaires within game and platform metrics from the online distribution platform Steam to drive strategic decision making. While project teams in large studios may still operate with a degree of autonomy from management and marketing (Cohendet and Simon 2007), the findings of my research would suggest that maintaining such autonomy from data and marketing departments may be increasingly difficult in games as a service.

In flow and platform logics, the aggregation and analysis of metrics are an increasingly important part of incremental cultural production and maintaining the culture of a game. Such systems are a clear sign of implicit user participation in ongoing cultural production (Kerr 2002b). Some large-scale online games can be thought of as data gathering systems. Riot games, for example, collect player, game and session data on its popular player versus player *League of Legends* game. In 2012 it reported having 32 million monthly users and up to four terabytes of operational data per day. By 2016 they had 76 million users each month and reported 7.5 million simultaneous users daily at peak times. In addition to tweaking the game design they were also using this data to monitor and manage in-game player

behaviour, especially cheating and toxicity. Thus player behavioural profiles combined with a player reporting and tribunal system are used to warn, perma-ban or pardon players for certain in-game behaviours. Riot employs data analysts and social systems designers who run experiments to test the influence of certain changes to the game on player behaviour. In a GDC talk in 2013 a Riot social systems designer presented results on making cross-team chat optional and experimenting with in-game tips to promote positive player behaviour. In online games we see data being used to answer a range of questions including:

> Which game champions (or the higher-scoring players) and skins (character costumes) are popular in particular geographic regions? What are the win rates of champions? Part of the challenge is to maintain a level playing field for all players, yet constantly tweaking game play and game mechanics to make it more interesting for returning players. (Storm 2012)

The growth of player and metric driven design is not embraced throughout the industry. Presentations at industry conferences like the Game Developers Conference (GDC) indicate that there is disquiet amongst developers with the ways in which business models rely on metric driven design. The mainstream press in the UK has taken to lamenting monetisation mechanics which are designed to make you pay (Dredge 2015). Academics like Ian Bogost (2010) have castigated social network games in particular arguing that "in social games, friends aren't really friends; they are mere resources". Indeed, he argues, games where you can delegate and avoid playing should not be considered games at all. Since such a

FIGURE 4.1 *League of Legends: Summoner's Rift*, Riot, 2009–2016.

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small percentage of players pay for content, social media games must constantly work to grow their player base using advertising. A relatively cheap way to do this is to mine a player's social network friend list and offer rewards and incentives for clicks and referrals. By GDC 2014 Bogost was discussing the extinction of game developers and referring to games as a "specialised form of banking". Of course, quantitative data tells you what players did, but as many have argued, it often leaves developers in the dark as to why they did it (Whitson 2012, Whitson and Dormann 2011). A reliance on metrics undermines, or downplays, the importance of gameplay, aesthetics and fun. For some academics we are seeing the rise of instrumental forms of play (Taylor 2003, Feenberg and Grimes 2009). It is certainly a more rationalised approach to games design that reduces the autonomy and agency of the game development team.

Understanding the player and gathering user data may have its place. Replacing intuitive constructions of game players and limited market research with metrics provides a way of getting beyond limited, expert, culturally specific data from user experience testing (UX) and forum feedback. This may help to undermine the more implicit i-methodologies that one sees when game designers and teams with limited diversity design for people like themselves (Kerr 2002b). At the same time data can also be biased, and biases can be built into the measurements systems that support reputation and achievement systems, service delivery, marketing and revenue generation. These problems of bias are supplemented by the lack of useful verifiable sales data in the industry, particularly in relation to social, mobile and online games. Further, player and service data, and metrics, are useful for online services that rely on incremental innovation, but are less useful in earlier stages of design. They may also be less useful in rapidly changing markets and they do little to predict future tastes and trends.

Data and metrics may provide a convenient way for creative managers and producers to feel like they are reducing risk and increasing control over development teams, but certain uses of them are viewed with suspicion by game designers and game players alike. Providing data to players about progress, achievements and matching players with others of similar rank is viewed by many as positive. T. L. Taylor (2006c) has documented how some players code their own modifications to gather play data and understand team dynamics in online games. Understanding where players fail to progress, or leave one's game, is useful. By contrast, adjusting game mechanics to exploit player social networks and purchasing patterns is often viewed negatively by players and some in the industry. However, in the absence of affordable and reliable industry data, most small independent studios must rely on in-game and community related data to construct an impression of their 'audience' and may not have the expertise in house, or the financial depth, to adequately parse the meaning of their data. It may be their only means of understanding their players and constitutes a new form of 'audience making' as Napoli (2010a) understood it. Despite the fact that such data information systems may only offer a partial understanding of

players, they may nevertheless prove sufficiently effective to build market value for companies.

Whatever about the ambivalent views of game academics and game developers about some of the techniques used to market, acquire and retain game players, it appears that the actions of both private and public actors may lead to new restraints on data driven cultural production. Apple has started to promote 'pay once and play' games in the app store, returning to the older business model. In Europe regulators have raised questions about free-to-play marketing and monetisation techniques, especially when advertised towards children. Do 'freemium' or 'free-to-play' games that include in-app purchases constitute false advertising? When do social games and in-app purchases become gambling? To date voluntary codes of conduct have been drawn up, new settings introduced and on some platforms the use of 'free' is less visible. We will return to some of these regulatory issues in the next chapter but the wild west days of anything goes in freemium business models would appear to be behind us. At the same time, data protection and data privacy issues abound. What happens when user data from one platform provider, like Facebook, is provided to a third-party game developer or indeed a third-party advertising broker? Does that mean that someone who downloads games and plays a significant number of hours online will be targeted with fast food, hygiene products and health insurance?

4.2 Marketing and Metrics

Marketing was highlighted as a key sub-circuit in the production of digital games by Kline et al. (2003) and they focussed their attention on what they called high intensity marketing. Marketing was identified as a key junction of negotiation between game developers and game players (Kline, Dyer-Witheford and De Peuter 2003:51). For them marketing, technology and culture are three interacting circuits that are fundamental to understanding the production and consumption of cultural meaning in games. They suggest (2003:57) that there is a "deep tension between the calculated, organised, and oligopolistic marketing of game culture and the experience of freedom, adventure and transgression its imaginary worlds promise". More recently others have examined marketing in more detail (Payne and Steirer 2014). My interviewees confirm that in larger companies, or when a project has a publishing deal, marketing begins during development when a product manager or producer attempts to shape a project in line with known markets, demographics and genres. Marketing take place pre-, during and post-launch of both small and large titles. While high intensity marketing still takes place for triple A and major mobile titles, more guerrilla or low level marketing is common for others types of projects. In this section we will initially focus on marketing as one aspect of circulation before we move on to explore the use of metrics in the marketing and communications strategies of game companies.

Game consoles used to have five- to seven-year lifecycles and were driven by an unrelenting drive to upgrade the power and performance of the technology,

sometimes with little backward compatibility. The marketing campaigns around each hardware launch are significant cross-media events that showcase the extensive links between the major hardware companies, especially Sony and Microsoft, and other media and communication industries. For example, the PS4 launch campaign in 2013 was called 'Greatness Awaits'. Their YouTube and television advertisements integrated social media and encouraged active sharing of producer- and user-generated content. A part of this campaign was 'First to Greatness' which encouraged players to use a new function in the PS4 to record themselves completing various challenges in the game and to share videos of their play on a Facebook page. They also integrated traditional television channels in the US and UK and major game related magazines. In the UK in November 2013 Sony launched a special campaign with Channel 4 television and used the television advertisements to drive traffic to a purpose built website that contained a game based around computer cheat codes. Not to be outdone Microsoft signed up Liverpool football player Steven Gerrard and *Star Trek* actor Zachary Quinto to front the Xbox One campaign in the same year. Business journalists have estimated that the global launch campaigns of both Microsoft and Sony's platforms in 2013 cost around $100 million. Nichols (2014:87) quotes figures to suggest that Microsoft spent $200 million on the marketing campaign of the Xbox in 2001.

Some game releases are also accompanied by expensive cross-media marketing campaigns which are similar to major blockbuster film releases and correspond to Kline et al.'s high intensity marketing. Cross-media trailers, public billboards and viral marketing campaigns hail the latest franchise updates for successful triple A brands. Indeed, if one looks at the recent launches of games like *Call of Duty, Grand Theft Auto* and *Assassin's Creed* it is appropriate to use the term 'blockbuster'. The marketing and promotion budgets for these games can rival their production budgets. Zackariasson and Wilson (2012a:65) estimate that in 2011 the top three publishers Activision Blizzard, Electronic Arts and Ubisoft spent between 16 and 22 per cent of revenues on marketing. Even mobile game companies are starting to increase their promotional budgets and in 2015 the Finnish company Supercell, paid an estimated $9 million for an American football final (Superbowl) advertisement for their game *Clash of Clans*, which starred Liam Neeson (Weber 2015). The increasing number of games available via platforms like Steam, Xbox Live and the mobile app stores has meant that advertising and promotion are even more crucial to discoverability for new entrants and new games.

Another strategy that game marketing campaigns use is to license well known intellectual properties from film, television, music and sports. Licensing well known intellectual properties from outside of games brings important brand recognition and pre-sale marketing into games and helps to reduce overall market risk. EA is one of the best-known independent game publishers with significant licensing deals with major sports associations. In the US they have deals with NFL, Madden and NBA but in other countries we get local variations and local heroes on the covers in rugby, golf and soccer games. For example, EA have partnered with

local companies to localise and launch their basketball and soccer games successfully in China. Dyer-Witheford and De Peuter (2009:51) rightly note that EA successfully glocalises their sports games to exploit local tastes and differences. In 2012 EA launched a digitally downloadable content extension for *FIFA 12* to coincide with the UEFA European football championship taking place in Poland and Ukraine. By 2016 EA had lost the tournament license to Konami. Regardless the sports licensing links are strong in digital game content and the games industry has also become a major advertiser at major sporting events and in sporting stadiums. Sony, for example, has been the official sponsor of the UEFA Champions League football tournament in Europe. In 2015, they extended the sponsorship deal for three years and included the Sony Xperia mobile phone alongside the PS4 in the deal.

Sometimes games are a source of content for other media. Film spin-offs from games have to date been relatively unsuccessful and, as I write, the second iteration of the *Hitman* game is hitting the screens to little fanfare in Europe (for an early examination of this see Kerr and Flynn 2003). Perhaps the *Angry Birds* movie will do somewhat better. An analysis by Randy Nichols (2014:121) found that the *Tomb Raider* film released in 1996 with Angela Jolie in the lead role has been the most successful of these film tie-ins to date with over $100 million grossed in the box office. While films based on games have not been major successes, links between the film and games industry persist. Disney for example owns a long list of game studios and there have been extensive links between Pixar and game publisher THQ. Films like *The Incredibles* (2004), *The Spongebob Squarepants Movie* (2004), *Spider-Man 2* (2004) and *Wreck it Ralph* (2012) all showcase the potential synergies between film, animation and games. Links with the music industry are best illustrated by the success of games like *Guitar Hero*

FIGURE 4.2 *FIFA 12 UEFA Euro2012 Expansion Pack. Ireland V Spain*, Electronic Arts, 2012.

(2005) which licensed 47 well known songs and *Dance Dance Revolution* (1999, PS2). Another expanding and lucrative revenue stream related to marketing is merchandising. Since *Pokémon* was released in 1996 for the Nintendo Game Boy the links between games and collectibles has been strong. Sara Grimes (2015) has detailed how this has operated in games aimed at children including *Webkinz, Club Penguin* and *Moshi Monsters*. In 2011 Activision Blizzard launched its *Skylanders* franchise and created a new 'toys to life' category of game. In 2015 Rovio, the Finnish games company, was restructured into three divisions: games, media and consumer products. The consumer products division produces *Angry Bird* t-shirts, lunch boxes, etc. Rovio's aim is to be a leading entertainment company rather than just a games company.

All of the examples presented so far are obvious uses of mass-market promotion and advertising that have existed for the last 30 years. Less obvious more low intensity forms of marketing also exist and seem to be proliferating. One non-traditional marketing approach includes developing small alternative reality games (ARGs) to help promote a major triple A release. This was done when *I Love Bees* was released as part of a viral marketing campaign to help promote *Halo 2* (2004). This campaign involved pre-release trailers for the game showing a web address for a supposedly hacked website on beekeeping and people who had previously played ARG games receiving pots of honey. The gameplay itself involved people working together to solve puzzles and using phone boxes to interact with game characters. Bungie and Microsoft also produced an ARG called Iris to promote *Halo 3* (2007), although this was just one tactic in a campaign that involved almost 40 licenses and is reported to have cost $40 million. A recent example is the development of *No Hope Lost* to promote *Resident Evil 6* (2012).

Product placement and advertising are commonplace in digital games and this has only increased with the development of free-to-play games. Sportscarver, an Irish company, provides a tool whereby advertising companies can dynamically place brand advertising on virtual hoarding in mobile sports games. They even sell the logo space on the football. Advertising supported content has been successful in casual and social games, and children's games. Sara Grimes (2015) has documented the success of free-to-play advertising and micro-transaction supported and branded children's games run by large toy and media companies. Her work explores the websites and apps developed by Cartoon Network, and the games *Webkinz* and *Moshi Monsters*. Many of these link virtual toys, pets and monsters to real world toys and collectibles. In 2015 *Moshi Monsters* was subject to a 'name and shame' campaign from the British Advertising Standards Authority for not adhering to a ruling that it stop promoting paid subscriptions to children. Other games like *Club Penguin* adopt a no advertising policy but nevertheless carry advertising for products from the larger Disney empire and are clearly branded as a Disney product. They also offer subscriptions and in-app purchases. All of these examples simply underline the dual product nature of digital games, as products, and as a vehicle for marketing other products.

FIGURE 4.3 *Moshi Monsters. Disco*, Mind Candy, Ltd., 2006–2016.

With the growth of games as a service, the functions of marketing departments have expanded and in many companies marketing staff have to be data savvy and plan their communication campaigns around both advertising campaign data and in-game player behavioural data. Customer relationship management in games is built upon analysis of player and behavioural data to provide customised and personalised advertising, marketing messages and recommendations. These are increasingly important to the circulation and value of games and have implications for our understanding of how value is generated. Traditional modes of engaging with players included market research, beta testing and usability testing. Today there are a range of new online modes for implicitly monitoring game players and mining their behaviour to personalise a game service. Many third-party companies offer marketing and user analytics services to game companies. The US based company Ninja Metrics has developed the Katana social analytics engine, which can identify the key influencers in a social network and determine their 'social value'. This data is then used to tailor customer relations activity and marketing information to the most valuable players. In Ireland, Swrve offer a mobile marketing solution to companies so that they can "know and personally interact with every mobile user". Both proprietary and third-party software is now being used to target players with customised marketing and content experiences in some games based on their social and financial desirability.

Such data based marketing and content based discrimination is widespread online. Joseph Turow (2005) and Elizabeth van Couvering (2011) have analysed how data, advertising and search engines operate across different applications and services to track online users. They discuss database marketing and how the

mobile phone has extended data gathering possibilities. Game marketing staff use third-party platforms and social media as part of their communication campaigns both pre- and post-game launch. Interviewees explained that with online games these campaigns might run for three to five years rather than a highly intensive four to six week period. Game companies use Google, Facebook and specialist advertising networks to run advertising campaigns aimed at acquiring and retaining players, and thus game companies are contributing to the growth of platform and Internet advertising revenues. While game magazines might have been a core channel for communicating with players ten years ago, today much of this content has migrated online and display and mobile content, promotional offers and advertising now provide game players with a direct link to a game or company website. Further, there are specialist game advertising services that will place game company advertisements across a range of channels, provide tracking services and campaign performance statistics. These communication campaigns are crucial to delivering players who might ultimately turn into paying customers. Then the task is to retain the players, monitor DAUs (daily active users) and ARPUs (average revenue per user). Interviewees talked about player acquisition, retention, monetisation and reach. In many games gathering data for advertisers, providing the right advertisements to players and running campaigns that generate traffic are key to generating both monetary and affective forms of value. Video advertisements which incentivise players with in-game rewards are just one of the latest ways to build in advertising in games and generate a revenue stream for developers.

The following interview is with a marketing employee of a Japanese company operating their European headquarters in Ireland. They focussed on bringing free-to-play MMO games from Asia and Russia into the European market. The interview gives some insights into the marketing lifecycle of an MMO game and the use of metrics to monitor user behaviour in a service with adaptable content.

> So if you look at a normal product life cycle, the parallel of that for games is that you have the development period, and (…that is when you do) all of your pre-awareness, building up hype, then you have got the game coming out, you have got your early adopters coming in. Then the game will get a little bit known, they will bring their friends in. … with MMOs … you have the same product (life cycle) but you are releasing expansions to it on a cycle of every 6–12 months.
>
> So say with *Allods Online*, which is one of the games that we would have launched in 2010, we have had 7 or 8 key expansions to that, and around each of those expansions there would be improvements to the game and then new features, new content, the biggest shift from the fundamentals point of view, ten years ago, when you made a game and you went gold with that game, you ignored it and it either sold or it didn't.
>
> Whereas now even though you have the same product you are tweaking it based on the metrics, the analytics. So retention is a big issue, you

> would need to look at your data and for an MMO you have a lot of people coming in on day one, and you know they might get to level 8, and then you need to find out, why aren't they getting beyond level 8. Or if there is a huge drop out point within the game. So it has moved from, as you said, games as a product to games as a service. It is just a consumer-focussed service. (Interview 5, Jamie McCormick, Marketing Manager, Gala Networks Europe)

4.3 Community Management

If both content creators and marketing departments are using player data to inform customisation and monetisation in the networked era, another important function in the circulation of digital games is community management. Both *LittleBigPlanet* (Media Molecule/Sony) and later *Minecraft* (Mojang/Microsoft) were so successful that supporting their online communities became a significant burden for the indie development companies behind them. Not surprisingly, both were acquired and *LittleBigPlanet* is now owned by Sony and *Minecraft* by Microsoft. Both games encourage player-generated content and are examples of how these new service type games require significant resources to maintain and engage their transnational communities. Both are also useful examples of how successful independent game companies are often acquired for their intellectual properties and then these properties are used to promote other brands and content. In 2016 Mojang announced that it was tightening controls on third parties who were creating content in-game to implicitly advertise towards younger players.

While much attention has been paid to data, metrics and analysis much less attention has been paid to the occupational roles and functions of community management. Community managers directly engage with players, they drive engagement through various campaigns and they respond to problems. Community managers often support game communities in a range of languages and glocalise game content and game support services to suit a local market. Viewing community management as separate from production becomes more difficult when you talk to people who work in these roles. In some of the most successful companies there are clear communication channels between community managers and senior business personnel and development teams. Community managers both communicate upstream to the development team and downstream to the players. In interviews it was clear that player feedback and unanticipated issues that emerge in game play need to be communicated back to development teams and new content being developed by teams need to be clearly communicated forward to community management teams so that they are ready for updates, challenges and player queries. Community managers play an important role in player retention and thus are a crucial part of the circulation phase.

In Ireland there are more people employed in community management and localisation than in core content creation, and the numbers are expanding (Kerr 2012, Kerr and Cawley 2012). In one newspaper report in Ireland a spokesperson for the industrial development agency that works to attract foreign direct investment admitted that "the support and community management aspect of games has the biggest impact" on the employment agenda (O'Brien 2015). These companies simply employ more people than core development, even if the jobs are relatively transient. At the same time none of the recent reports on the games industry by UK agencies like Creative Skillset and NESTA mention community managers (Livingstone and Hope 2011, Skillset 2010). Most national industry reports and representative bodies for the games industry fail to mention these occupational roles and yet they appear to be of growing importance in terms of the circulation and success of online games. However, Google Trends data for the English language indicates that searches for 'online community manager' grew significantly from 2010. From 2015 GDC added a community management summit to its conference. A search for community managers on online industry websites like Gamasutra.com and Gamesindustry.biz turns up thousands of articles on community managers.

AU:3

One of the first game academics to mention community managers was John Banks (2005, 2013) whose PhD research (2000–2005) involved working as a community relations manager and subsequently a community manager in an Australian game development company. Much of his work focussed on the tensions between game testers and the production team pre-launch. His work proposed that new forms of 'co-creativity' and social network markets were developing. Vinciane Zabban's (2011, 2009) fieldwork (2006–2008) saw her working as a community manager in a French games company both pre- and post-game release for an MMO game. Both conceptualise the player/designer relations as emergent and dynamic, contested and collaborative. Zabban documents the variety of professional and amateur roles including customer support, game masters and community managers who mediate the boundaries of the game world. She also notes how community volunteers are neither fully players nor fully designers, confounding our binary definitions of each and our conceptualisation of production and consumption as entirely separate. It is clear that paid community managers are just one element within a complex governance assemblage which includes non-paid volunteers, legal and policy documents and complex software systems (Kerr, De Paoli and Keatinge 2014).

Initial research could suggest that the job of paid community management is different to customer support and content moderation, although this role is changing and it varies from sector to sector. Research conducted by the author in 2014 on a sample of international job advertisements for community managers found game companies describing the jobs as follows:

> Blizzard Entertainment is seeking a manager passionate about the gaming industry, player communities, communication, and social media. They will

> oversee the design and execution of community engagement programs, manage a team focused on the player community, and lead the editorial direction of content to be published via our social media outlets, blogs, and forums. (Activision Blizzard, California, US, careers, company website, accessed summer 2014)
>
> Electronic Arts, the world's leading independent developer and publisher of interactive entertainment software is seeking a community manager to manage and execute online and social product strategies. Reporting to the Director of Global Product Marketing, the community manager may work on one, or multiple games, simultaneously. This role is embedded (and physically located) in the game team studio to improve communication and to give community more visibility into game features, content, promotions, game development status and roadmap … The community manager is the owner of published content on Facebook fan pages, websites, forums, and other community channels (i.e. Twitter, blog, YouTube if applicable). He/she constantly monitors the community channels to communicate, to engage, excite, and trouble shoot for fans, with the ultimate goals to drive traffic, engagement, brand loyalty, and revenue for the assigned games. (Electronic Arts, Helsinki, Finland, careers, company website, accessed summer 2014)

While in some companies these jobs are located in the marketing department, in others they have a separate department, sometimes close to the development team. They work in language specific teams supporting players in particular geo-linguistic markets and in the large companies these are sensitive to local cultural and political context, as well as linguistic variations. These roles are located in strategic locations that are proximate to large games companies, core language markets and a highly mobile workforce. In some of these locations there is also a favourable tax or financial regime. In our sample positions were offered in: Dublin and Galway (Ireland); Hamburg and Berlin (Germany); Santa Monica, Redwood, San Francisco, El Segundo, Irvine and Austin (US); Sao Paolo (Brazil); Helsinki (Finland); Versailles (France); Bucharest (Romania); Moscow (Russia); London (UK); Edmonton (Canada); Seoul (South Korea); Taipei (Taiwan); and Madrid (Spain). One of the key differences compared to content moderation jobs is that many of these community management jobs were not based in established low cost locations (Kerr and Kelleher 2015).

While job advertisements in our sample gave little information on remuneration, or benefits, they did emphasise experience and passion for games. What is clear is that experience in community management in informal or formal settings, and domain knowledge of games generally, or of particular games more specifically, is prioritised in these job advertisements. The use of 'humble' in the quotation below demonstrates how the language of care, modesty and

self-effacement – not qualities we usually associate with creative work – are deployed:

> We're looking for humble but ambitious, razor-sharp professionals who can teach us a thing or two. We promise to return the favour. Like us, you take play seriously; you're passionate about games. (Riot, Dublin, Ireland, careers, company website, accessed summer 2014)

Community managers take care of direct communications to game players via multiple channels including both proprietary forums and third-party platforms like Twitter, Facebook and YouTube. They are tasked with not only growing the number of users, but also with driving engagement, measuring and listening to players and improving services. A key challenge for community managers is managing problematic player behaviour and communications. Having analysed our job ads and interviewed a small sample of male and female community managers we concluded that community managers performed mediated and face-to-face emotional labour (Hochschild 1983). Community managers have to remain calm and helpful despite finding themselves in emotionally charged online contexts. They have to deal with threats of suicide, political arguments, sexism, racism and homophobia. They also had to be careful not to offend. Hacking and exposure of player data was another challenge and community managers had to manage the communications surrounding these issues. One male interviewee who had worked in the industry in two major multinational game companies noted that it was important "not to take things personally" or to "bring things home". One female interviewee stated that you needed to be empathetic, try to think like players, predict their actions and adjust your own accordingly.

AU:4

> Q: So, what do you think are the main skills a community manager needs?
> A: Well, communication.
> Q: Is that oral, written, what do you mean?
> A: In every possible way. You need to get to the point somehow and then you have to be kind of controlled, because sometimes you have, you have nice days, when the community, it's nice to you, but you have many, many, days when everybody's shouting and insulting each other, insulting you and you have to find a way to gain their trust to calm things down. It's a bit like a diplomatic job, in a way. (Interview 11, female, aged 28)

In the context of our focus here, we can see that monitoring and managing player behaviour is an important aspect of both the games business and player culture. In some companies community managers provide useful qualitative feedback to the development team and potentially inform the future direction of a game service. While community management developed initially as a voluntary role performed by players themselves, game worlds have now become so complex

and large that this is no longer desirable, even if game players still provide an important governance and policing role. And while some tools and processes can be automated, the framework for managing and governing online games is still very much a socio-technical framework or an assemblage of code, documents, company employees, players and para-texts (Kerr, De Paoli and Keatinge 2014). For me, the role of community manager is key to understanding the developer/player relationship and the process of circulation in online games. It is a crucial part of the infrastructure that underpins both large and small online communities. Without adequate community management it is clear that many online game services will not prosper.

Community managers are often involved in organising face-to-face events, tournaments and conventions. Many game development and publishing companies are developing and supporting varying levels of amateur and professional gameplay and related forms of spectatorship around their games. We also see the adoption of elements from professional sports in terms of competition structures, rules and sponsorship and we see the influence of traditional media and theatre production values in terms of stage presentation, lighting and spectacle. Blizzard integrates e-sports into its annual Blizzcon event and its worldwide invitational events can attract up to 20,000 attendees. Id Software is involved in the annual Quakecon. Riot has developed their own *League of Legends* World Championship competition since 2011 with teams from South Korea, China, Taiwan/Hong Kong/Macau, Europe and North America. Here we see an interesting blurring of the editorial and the performance logics of cultural production. These games have developed a range of value added services around them, including annual large-scale live spectacles in real world sports arenas which can attract large online and offline audiences. For Riot supporting the 'worlds' is part of the community management role and brings community managers and players into direct face-to-face contact. In 2015 BBC 3 television and BBC Sport Online livestreamed coverage of the heats in Wembley arena in London, mixing well known music DJs and expert sports commentators with interviews with fans. The platform used to livestream the event was previously used for professional sports and music concerts like Glastonbury and enabled the broadcaster to integrate social media with the livecast. *The League of Legends* gamepedia wiki provides an insight into the progress of the various teams and integrates social and other forms of paratextual production. In 2015 two South Korean teams made it to the world final – both teams were composed of young non-white males. The world champion in the annual *League of Legends* world championship took home $1 million US in 2015 and there was over $2 million US in prize money.

Much has been written about the gendered aspects of these gaming tournaments, the teams and the communicative practices of players (Taylor, Jenson and de Castell 2009; Taylor 2015, Bryce and Rutter 2003). Emerging work is examining hybrid forms of spectatorship and the legal struggles around the performance and broadcasting of these games. These struggles centre on control

over intellectual property rights, performance rights and revenue streams between development companies, third-party professional leagues and traditional broadcasters. T. L. Taylor examined the legal struggle between Blizzard and KeSPA in South Korea (2012:159–173) and in 2015 similar issues emerged between Riot and the e-sports company G2A surrounding the use of advertising and sponsorship at the 2015 *League of Legends* championship. The *League of Legend* 'world' tournament is far from global in terms of team representation and most national and regional teams receive direct invitations to participate. Yet considerable effort is invested by those involved in the competition in representing it as a world event and in developing the associated broadcast content strategy. Paid and unpaid community managers play a crucial role in promoting and narrating these events to both gaming and non-gaming audiences, and demonstrate the effort required to make such events available online. T. L. Taylor (2012:233) has noted that the spectatorship demands of live broadcast and of live competition has already had an impact on the design of games in terms of content and mechanics. Some game genres and content are more suited to broadcast performance than others.

4.4 Localisation and Culturalisation

Early digital games were rarely translated and localised. Sometimes the box and manuals were translated but the games were not. Consalvo (2016) documents how North American and European game players experienced Japanese games in the 1990s and how for some this was the catalyst for greater exploration of Japanese culture. She also documents how some players went on to become involved in ROM hacking and fan translation in an era when many games were released at different times in different markets, or were not released at all. Today it is more common to see localisation of game content but much work goes into making the more complex games acceptable outside of their source language and cultural market. To a certain degree there is an international culture of games: groundbreaking games on particular platforms are part of popular memory for developers and game players. In the UK and Ireland it is often an early game on the Sinclair Spectrum, the first *DOOM* or the first *Grand Theft Auto*. In North America it might be a Commodore or arcade game. Despite this shared history, these experiences are often not global and many markets did not get access to early Japanese or American games at all. There is also a tacit understanding amongst industry and academics alike that certain games will not travel – that certain Western first person shooters did not 'do well' in Asia, and that certain Japanese games never got localised for Western markets. Today while some Western games get localised for Chinese markets, many more have unauthorised localisations. At the same time few Chinese games have been localised for Western markets (Simon 2014). Local cultural tastes, local laws and language mean that real time strategy and MMO games are much more popular than action games in China, and only when it comes to browser and mobile games do we see some similarities in top genres between the main Eastern and Western markets.

Localisation is a broader process than translation and involves a myriad of decisions at the technical, content and business levels. Localisation usually involves adaptation of the language, content assets and sometimes the code of a game for major markets. *Fable 2* (Microsoft 2008), for example, had 420,000 words, 48,000 audio files per language and 54 actors per language. Translate that into five languages and you have a considerable task on your hands (Edwards 2012). Such large projects must plan for internationalisation and localisation at a very early stage of the project. Leave localisation until the post-production stage of a project and you have an even larger, if not impossible, task on your hands. How and why do companies localise for different language markets? Cost is important and this must be balanced against potential revenue. For some large publishers over 50 per cent of their revenues come from international sales, and therefore most large companies have an internationalisation policy. However, some markets are important for other reasons – maybe a company is also launching a new hardware product, or film, and the potential synergies make the localisation necessary. AU:5

The main markets and languages in Europe for game localisation are English, the FIGS languages (French, Italian, German and Spanish) and increasingly Russian, Polish and Turkish. Different markets also have different tastes and sensitivities and the cost/benefit decisions are often based on market size. For example, interviewees noted that English language games were rarely translated for the Scandinavian markets – these countries were grouped with the other English language speaking countries. Companies also have different sensitivities. Some North American companies tend to think of English as standardised globally, while other companies insisted on the need to differentiate between North American and British English. Again in the European context it is important to use European Portuguese and not Brazilian Portuguese.

> Certainly for markets like Japan and China, localisation is vital. In any platform, if you don't have it in Japanese it just will not sell. If you don't have it in Chinese, it just will not sell. In that, you almost needed it as an entry requirement. It wasn't quite so in Europe I think, although probably the French were probably a little more inclined to choose French products. (Interview 5, Jonathon Young, Director of Operations, Culture Translate)

Some markets are more complex. Dal Yong Jin (2015) notes that Sony took six months to adapt and localise *EverQuest II* (2004) for the Chinese market. This involved the translation of 1.5 million words. Localisation is not just about translation and simple cultural adjustments. The concept of glocalisation, as developed by Robertson (1992), is useful here to highlight the mixing of global and local elements, or perhaps more accurately pointing to the importance of one in understanding the other. Companies like EA have incorporated glocalisation into the production of their sports games which are targeted at particular markets and often feature local or national stars on the covers. But glocalisation requires much

more than the localisation of covers and language. Companies have to decide how to adapt to local tastes and practices and those who do not, face considerable barriers to their global aspirations. Sometimes maintaining a level of difference and foreignness is crucial to the game content. Knowing what to keep, and how much of it, is the key skill. In some countries like China local laws give rise to new business and cultural hybrids. Games as a services means that not only the game content, but also the surrounding service elements may need localising, including payment systems, community management and customer support. In interviews conducted for this book it became evident that the launch of *Call of Duty* into the Chinese market took years of redesign work on the content and attention to local cultural and political sensitivities. However, this is often not enough when pursing a transnational globalisation strategy.

For one interviewee the shift from games as a product to games as a service had changed many elements of their localisation job. Now games need constant updating until the game stops being supported. Every time there is an update or extension there is more localisation. If a product is not made 'localisation ready' then there is code that needs adapting as well as everything else. A 'globalised' product is a product which will adjust to local system settings including date formats, etc., and the game is ready to take a language that reads in a different direction or on different keyboards. Further, it is 'localisable' or 'language neutral' and the code and language parts are separate and easily modified without affecting the core game. For localisation staff a game can be globalised without having been translated or localised. The first Xbox console shipped with an interface for a limited number of languages but that has subsequently grown. Some markets are more important for certain platform providers and therefore the interface is designed to operate with those languages. These are business decisions that are then encoded into the interface and code.

Concepts like 'transcreation' or 'culturalisation' emerged in interviews. These concepts were used to refer to how localisation companies aim to remove culturally specific terms and replace them with the appropriate term for the target market. This may go beyond linguistic meaning and need to interface with local cultural and linguistic norms including deference to seniors or sexual connotations. Experienced localisation teams can help producers to decide if and how games might be localised for different geo-cultural and geo-linguistic markets and in some cases radically redesign the game content. Content also has to comply with local age and content regulations and restrictions. Even in Europe where there is the regional Pan European Games information system (PEGI), there are variations in national content regulations including the USK system in Germany. While some content rating systems are sensitive to violence, others are more sensitive to sexual content (Kerr 2006b).

And then there are the geo-political issues. Kate Edwards (2012), executive director of the IGDA, and founder of the IGDA localisation special interest group, was Microsoft's geopolitical strategist and was responsible for a geopolitical quality

review process in all Microsoft games between 1995 and 2005. She currently has a consultancy business focused on 'content culturalisation'. She distinguishes between three types of culturalisation. The first type is 'reactive culturalisation' which takes place late in the production process and might involve removing samurai soldiers from the box art of *Age of Empires II* that shipped in South Korea, or removing lyrics from the Koran from *LittleBigPlanet*. Another example involved not releasing *Fallout3* in India due to the representation of a bull in the game which could not be changed due to the code structure. The second type is localisation and internationalisation, which we have already discussed. The third type is 'proactive culturalisation'. An example of this was when Microsoft added in local car models into *Forza Motorsport*, which helped them to drive sales in particular markets. Thus while localisation might be taken to mean translation and adaptation, she argues that culturalisation is an end to end process that begins in pre-production. Proactive culturalisation needs to take place early in the production process to enable adaptation and circulation to different markets later in the product or service lifecycle.

Some of the largest companies not only localise their products but also establish local branch offices in near to market or in market contexts to better promote and support their products. Consalvo (2006) documented how the production of the *Final Fantasy X* game by Japanese company Square Enix was actually produced by a North American/Japanese transnational production network and blended Asian and North American influences in the game design. For her "the digital games industry functions as a hybrid global culture" (2006:126) and the *Final Fantasy* Games illustrate how this works both through a hybrid production network (with locations in North America, Europe and Japan) and hybrid cultural references. Jin (2010, 2015) documents how NCsoft has "a global infrastructure, local content strategy" and established NC Interactive in Texas in 2000 to focus on marketing, localisation and third-party publishing. They also opened NC Europe Ltd. in London in 2004. *Lineage II* was developed in the US even though the first version was developed in South Korea. Jin notes that the second version added elements and adapted the game to North American game playing styles including adding more player versus environment rather than player versus player. For this author there is a difference between the globalisation discourse of the major companies and the economic, cultural and technical choices that are made to make a digital game more successful in a particular market.

While large publishers and successful companies have the budgets to plan for localisation what about start-ups, indies and companies working in the social and casual space? Much depends on the type of game and budget, but interviewees recommended planning for localisation and translation at an early stage even if it was not part of the initial project plan. If the project is successful, then it is easier to roll it out in different markets. Kate Edwards (2012) in interviews notes that she often recommends that North American companies at least plan to translate and localise for Spanish markets. In Europe the largest markets are

Germany, the UK and France so anyone planning to enter the European market needs to consider those. In Asia, the primary focus is China, followed by South Korea and Japan. Another cultural and social consideration in the free-to-play market is 'propensity to pay'. Some markets have a higher propensity to pay on social and mobile platforms, others do not. Interviewees noted that metrics, testing and adapting the game was crucial to the circulation and success of the project.

Finally, for some languages and companies the only way to afford translation is to involve players in the process. Players are involved in both unsolicited translation of games and in explicitly crowdsourced translations. For years players have mocked poor translations in games with Japanese to English translations seeming to feature highly in fanfiction and fan art (Newman 2008). Often these translations came from translators that lacked any knowledge of games or of game genres. There are also examples of fan translators working with hackers to perform 'translation hacking' of games and release a patch for a game in another language (O'Hagan and Mangiron 2006, Consalvo 2016). Jaroslav Švelch (2013) documents how in 1980s Czechoslovakia hacker programmers and translators worked together in computer and youth clubs to translate English language adventure games into Czech and Slovak and then to distribute them. Some even got paid royalties for their translation work. CD Projekt was established in 1994 as a games distributor and got involved in translating English language games into Polish, including *Baldur's Gate*. Their game *The Witcher 3* has been translated into 15 languages including seven with full voice dubbing (Kerr 2015).

With games as a service we also see examples of companies developing systems and tools to facilitate crowdsourced translation following the example of Facebook which in 2008 managed 30,000 users to translate their site into 16 languages and then to vote on the quality of the translation. Steam launched the Steam Translation Server in 2013 to support translation of the service by volunteer translators into the 26 languages its supports. The quality of the translations is monitored and volunteers can level up and achieve badges or, their translations can be declined and their 'participation may come to an end'. The indie game *Gone Home* (Fulbright Company 2013) was localised into 12 languages by fans and now has 22 language versions available. The developers have been quite open in talks at GDC and elsewhere about the lack of money they had to invest in localisation but also the strengths and weaknesses of crowdsourced localisations by fans. Some of the problems include quality control and the lack of support for updates, services and launch. It is clear from interviewees and information gathered from secondary sources that preparing for localisation early is key and that adjusting the game to the users and their cultural preferences is an evolving and important aspect of both production and circulation. Yet again we see that making a global game takes careful planning to account for cultural, political, social and economic differences between markets.

4.5 Player-Generated Content

The development of online platforms, collaborative sandbox games and networked game devices heralded the coming together of online communities and user production/user-generated content in interesting new forms. *LittleBigPlanet* (Media Molecule/Sony) and later *Minecraft* (Mojang/Microsoft) not only epitomise the importance of online communities and community support but their success is built upon player-generated content. *Minecraft* in particular has spawned lively fan communities and associated video play-throughs shared via YouTube (MacCallum-Stewart 2013). As of May 2016 there were 9.5 million videos on the *Minecraft* YouTube channel. There is also an annual MineCon convention in California with over 10,000 attendees. Even when a game does not include content sharing tools, game players have been found to use other Internet sites to share their creations including online videos, wikis and skins (Lastowka 2011). Conceptualised as a 'participatory culture' by Jenkins (1992, 2002, 2006) it is clear that player-generated content in games generates both symbolic and economic value for the player and for the game publisher. These games can be conceptualised as operating within a platform logic with the key central broker (the publisher and/or the platform owner) providing a service for users to generate content and generating money from both direct and indirect sources. These games circulate both explicit user content and more implicit user data and these are both commodified and governed by a contractual framework. A performance logic may also be present. Thus player-generated content is an important aspect of the circulation stage and a key area where producers and players negotiate the legal, cultural and economic aspects of online games.

In this section we will explore two areas where players are explicitly involved in generating content that directly or indirectly generates economic value: content modifications and player-generated broadcasts of gameplay. What is of importance here is to recognise that while there are tools, systems and possibilities for players to modify and add their own content in many games, this does not mean they have unbridled freedom to do as they please. There are technical, economic and legal constraints that restrict and control these activities. Despite the Web 2.0 rhetoric which suggests increased user freedom online, in games we can see that there is a move away from what Zittrain (2008:3) has called 'generative technologies' and towards 'a network of control'. Within this network, some activities are sanctioned, whereas others are not.

We can refer to user content, user modifications and user performances as 'paratexts', a concept developed by Genette in relation to literature which refers to everything that informs, or relates to, a given text, yet is not strictly part of it (Genette 1987/1997:5). Writing about literature Genette distinguishes between peritexts – elements within the text like the preface and titles – and epitexts – elements outside of the text like reviews and interviews. Lunenfeld (2000:15) has applied the concept in relation to digital media and Gray (2010) in relation to film and television

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FIGURE 4.4 *Minecraft*, Mojang/Microsoft, 2009–2016.

(e.g. fan videos). Consalvo (2007) uses the concept of paratext in her discussion of commercially produced cheating guides. In our research on online game playing communities in *World of Warcraft, Tibia* and *Eve Online* we identified a range of both company and player-generated epitexts (Kerr, De Paoli and Keatinge 2014).

Player modifications have a relatively long history in digital games. Bedroom programming of games and the ability to reverse engineer and hack PC games abound in the histories and mythologies of the industry (Kerr 2012, Haddon 1988). Early forms of hacking were not always welcome and their relationship to the industry was not always as clearly mandated and supported by the industry as user-generated content has become. Sotamaa and Wirman (2015: 836) note that modding, or game modification, "may operate on the levels of hardware, program code, graphics, and 3D modelling, and it often leads to changes in the system game structure, such as game rules and in the game's interface and HUD (head's up display)". Some modifications target audio-visual elements in a game but others involve the core technology of the game and can involve a total conversion of the game.

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Total conversion mods grab the limelight and the most well-known examples illustrate that developers and amateur developers can develop a close relationship. id Software distributed a stripped down free version of *Doom* (1993) initially in order to build reputation but they structured the game data to separate it from the game engine and to make modifications easier. The source code for *Doom* was also released open source a few years later. *Doom* was specifically designed to advance the development of game modifications by players and hobbyists. Some of the most referenced *Doom* mods from this time referenced mainstream films like *Aliens TC* released in 1994. Many of the original hobbyists who made the first modifications for *Doom* went on to work at game companies, turning their cultural and social

capital into economic capital. Other well-known total conversion modifications include *Counter-Strike* (Valve 1999), a multiplayer modification initially made by amateurs of the single player game *Half-Life*, and *Defence of the Ancients*, (DotA 2003), a mod made for *Warcraft III*. While *Doom* and *Counter-Strike* were essentially developed by full time developers, DotA involved a range of hobbyists with input from players via the forums. Later the intellectual property rights to DotA were acquired by Valve and a fully commercial sequel released. When Nieborg and van der Graaf (2008:182) examined the relationship between Valve and modders of their games, the authors, described these mods as 'proprietary extensions', which are constrained by technology/code, economics and legal policies. They noted that Valve exerted control over their modders directly through engines and tools, and indirectly through the appropriation of successful mods.

Not all modifications are treated the same by commercial publishers and often there are strict limitations as to what game players can modify and what they can do with the modifications. Massively multiplayer online games for example often only allow for non-commercial user interface modifications. T. L. Taylor (2006b) in her analysis of *World of Warcraft* players found that players were making user modifications which included damage meters and high-end raid tools. In fieldwork that I have been involved in we found players creating a range of user modified tools to record game play data but also some players commissioning third-party developers to create epitexts that automated certain aspects of play in direction contravention of the end user license agreement and contract of purchase. Some of these modifications were construed as cheating or interfering in the balance of the game by the publisher and led to players being banned or otherwise reprimanded (De Paoli and Kerr 2011; Kerr, De Paoli and Keatinge 2014). Similarly, O'Donnell (2014) has documented how Nintendo, as a platform owner, has pursued players through the courts for the use of console modification chips. While legally much player related content may infringe copyright law, in practice companies vary in how they enforce this. This, as Greg Lastowka has pointed out in a podcast, is not a very satisfactory situation (Taylor and Lastowka 2013).

Many scholars have argued that the labour of modding produces economic and other forms of value for game companies (Van Dijck 2013; Whitson 2010; Nieborg and van der Graaf 2008; Postigo 2003, 2007). Previous research has found that game companies now acknowledge that allowing user modifications can drive sales of the original game, can extend interest in a game and can aid retention (von Hippel 2005, Nieborg and van der Graaf 2008). Others have noted that it assists in building customer loyalty, provides an alternative source of innovation and acts as a useful recruitment tool (Kücklich 2005). My own research on community managers would confirm that such practices do aid in recruitment and are a pathway into the industry. Some amateur modification projects operate like professional development teams and team members have formal roles. The amount of labour involved is significant and despite the fact that it is freely given, and enjoyed, as Kücklich acknowledges, it is worth exploring how such voluntary

labour helps to reduce costs or at least supplement marketing, recruitment and research and development initiatives. Such practices may also undermine professional employment in the industry.

In previous publications I have noted that the turn to user-centred, participatory and peer-to-peer design practices may be disempowering and indeed exploitative of game players in certain circumstances (Kerr 2011). The boundaries between professional and amateur developers, and between professional and volunteer moderators, are fluid just as the boundaries between work and play are continually tested, as Julian Kücklich (2005) captures so eloquently in the concept of 'playbour'. For Kücklich the basis of the exploitation is that modding is 'perceived' to be playful and enjoyed by players while generating value for the professional company. For me, it is about more than perception. The generation of reputation, skill and community are clear motivations for modders, but in addition their activities are clearly controlled. The legal and professional contracts, end user license agreements and norms governing these relationships have, at least in many Western economies, been strengthening the professional's intellectual property rights and limiting the ability of amateurs to extract financial value from their labours. Even if some companies tolerate such activities, the potential for sanction remains. This is resonant of Marx's concept of 'accumulation by dispossession' and Hesmondhalgh (2008) has identified this as a trend more generally in the cultural industries. Of course pursuing one's property rights is more possible in certain jurisdictions than in others. Similarly, it is not always amateurs who are the target of legal proceedings. Game cloning is another challenge that professional developers face and epitomises the complexity of enforcing intellectual property rights in the networked age.

Originally modding required a degree of digital literacy that many game players simply did not have. When the benefits of stimulating player-generated content and mods from a business perspective were recognised more and more game companies developed platforms and tools to support user-generated content and circulation. More recent iterations of games have provided relatively black boxed tools and functions that enable easy creation and sharing. To some degree this also allows companies to keep control of, and monitor, use of their intellectual properties and those of other companies. In some instances, game companies have developed ways to commodify player produced paratexts that stimulate further circulation (e.g. cheat guides, walk-throughs, leaderboards, fan hosted websites, developer blogs) and they work hard to restrict or discipline others (cheat software). These attempts are not always successful and players can be remarkably resourceful in their attempts to evade surveillance and control.

A related development is that player-generated content and amateur modifications are often encouraged by game companies through their academic and community outreach programmes. Each year a number of companies and professional conferences run student and amateur competitions with significant prize money to encourage game modifications. Many large game companies employ academic

liaison officers or may directly sponsor equipment and software in schools and universities. For cash strapped educational institutions this is seen as a way of accessing the latest tools. However, in some of the instances that I have examined there are legal, commercial and aesthetic restrictions placed on the winning projects. Competitions may also involve intensified and long working days with little critique of these working conditions. In an industry with low levels of investment in continuous professional training (Grantham and Kaplinsky 2005) and precarious contracts, such direct engagement by game companies with amateurs and students serves to further secure a constant supply of appropriately trained staff accustomed to intensive working conditions. The games produced meanwhile do not, as Kirkpatrick (2013:126) points out, "inspire critical theorists with their emancipatory potential". Examples of politically and non-market motivated mods exist, but more prevalent are modifications that extend uncritically current games and genres. Such activities are often focussed on learning a narrowly defined set of skills, rather than encouraging experimentation.

One new form of player-generated content that is seeing significant growth are user-generated broadcasts of gameplay on YouTube and Twitch. Significantly in 2015 Google's YouTube launched YouTube Games to rival Amazon's Twitch service and to enable game streamers to upload videos, commentaries and start their own channels. Twitch was bought by Amazon in 2014 and that year had 100 million monthly audiences for its live streams. YouTube was more popular for pre-recorded 'let's play' videos but its new games service foregrounds live streaming possibilities. The current generation of consoles, especially the PS4 and Xbox have attempted to integrate live streaming possibilities into their console systems and they integrate with social media. While amateur game players are significant users we can also identify the emergence of broadcasters who are streaming every day and who are earning money from vlogging. Austin Walker (2014) argues that are two streaming postures with live streaming – an active and a passive one. Active live streamers build their own identity and maintain control over their productions and associated revenue streams. Passive streamers just turn on the available live streaming services and remain content to be constrained by the limitations the platform places on them. Often in passive streams there is no commentary or attempt to build an audience.

One successful European live vlogger is Felix Kjellberg, known online as PewDiePie or 'pewds', who earned $7.4 million in 2014 by filming himself playing video games for his YouTube channel and has over 45 million subscribers. Kjellberg shares this revenue with YouTube, which takes a significant cut, and Maker Studios, which is a multichannel network located in Los Angeles and now owned by Disney. He has been streaming for five years and at the time of writing had signed a publishing deal for a book. Game broadcasters appear to operate across platforms and clearly see themselves as content creators. For example, Dutch live streamer Marcella, who is known by her online name Nysira, streams daily on Twitch, describes herself as a content creator on YouTube and

has monthly giveaways for subscribers. Such broadcasts greet new viewers with an advertisement and a mature content message. You can avoid the advertisements by subscribing for $4.99. Nysira streams gameplay of *World of Warcraft, Diablo, Heroes of the Storm, Rocket League, Street Fighter, Mortal Kombat, The Sims 4* and *Call of Duty*: *Advanced Warfare* amongst others. She also chats, plays music and runs competitions. At the time of writing she was working full time as a streamer and had 30,000 followers and over one million viewers. Both these active 'broadcasters' have signed a sub-license with Twitch, who can use their names in any promotions that Twitch does, but the broadcasters are fully responsible for any third-party copyright, trademark or other infringements that take place during broadcasts.

These broadcasters often broadcast every day and treat it as a full time job. Some like Marcella broadcast in different languages on different days, but primarily in English. These streamers have cultural and social capital and make money through subscriptions, advertising, sponsorship and revenue sharing deals with platform owners. In addition, they have become of interest to game companies who see them as another form of marketing/advertising to boast circulation through brand recognition and buzz. Many games, like *Call of Duty Black Ops 2* (2012) offer a built in theatre mode and webcasting function to allow players to capture and broadcast their gameplay through the company's servers. According to Hector Postigo (2014) many top YouTube commentators can be characterised as 'hardcore gamers' who spend significant amounts of time playing and money on peripherals to improve the entertainment value for their audience. Indeed, many streamers proudly list their playing equipment on their channel and have sponsorship from computer equipment companies. T. L. Taylor notes that such streamers are converting their private gameplay into public play and she distinguishes between social casters who play many games and e-sports professionals who concentrate on a small number of games (Taylor and Lastowka 2013). For Taylor and Lastowka there are many uncertain boundaries and regulations around user-generated content on streaming sites. For example, is a streamed play cast a derivative or a transformative work? What intellectual property issues emerge in a streamed performance of a commercial game with commercial music in the background?

For this author, the development of professional game broadcasters challenges some of the assumptions about the exploitation of users and players by game companies and highlights that certain players have the cultural and economic capital to negotiate with publishers and take advantage of the revenue possibilities afforded by platforms. Some of these players have moved from amateur to professional status and are earning a living. They have entered into agreements with platform providers like YouTube to enter into their walled gardens and participate under the terms of service of these platforms. Some of these professional players are also taking part in e-sports competitions. Perhaps we should conceptualise these streamers as a new form of cultural intermediary mediating

between amateur players and developers. Some streamers have larger audiences that many traditional game review sites and magazines, and more complex forms of engagement with their audiences. This fact has not been lost on game development companies or publishers. What these players are doing is a form of implicit low intensity marketing for the games they are playing, and there is clearly some research to be done exploring how these relationships are becoming commodified and the degree to which professional players can exploit or be exploited in the process.

Paratextual modifications to games provide a rich terrain for research and for exploring the contested relationship between work and play and between players and professional companies. Media and communication scholars, game scholars and legal scholars are mining this area to add nuance to the utopic v. dystopic debates and to provide insight into audience practices and meaning making. While people like Yochai Benkler (2006) hail the potential freedoms of non-market social productions, it is hard to see how many amateur user-generated content in the games space are beyond the market and beyond the control of business interests. Often players use tools sanctioned or provided through a free license by game companies and they may liberally quote other copyrighted content in their productions. If this content is uploaded onto the Internet or any of the current content sharing platforms, the content is either explicitly or implicitly (through the data gathered from all the sharing) exploited for marketing and promotional advantage. The use of the term exploitation in this sense is not overstating what the platform or service provider is doing. It is simply the business model that they operate.

Players who excel in modding and casting are essentially showcasing their skills and some can turn their social and cultural capital into economic capital through sponsorship, product placement or employment. Interviewees in game companies commented to me that top YouTubers and Twitch broadcasters are likely to be recruited by companies and their online experience and status often outweighs formal education. Even activities like cheating, virtual trading and other non-sanctioned user behaviour drives innovation both inside the games company and outside as companies strive to control and third parties strive to exploit (De Paoli and Kerr 2009). Where these circulation activities are within the gameworld, there is scope for direct monetary exploitation by the game company, but even when they are outside, the nature of cross platform advertising networks means that financial value can be extracted. Player-generated content and performances may also be subjected to legal claims.

4.6 Summary

In this chapter we have examined a number of aspects of circulation – metrics and marketing, localisation, community management and player-generated content – to assess the importance of the circulation stage to understanding the production

of digital games. The range of occupations and the numbers employed in these roles are growing across the professional games industry. Even when these activities are not taking place in the formal production network, or the market economy, they are nevertheless contributing to the larger ecology of digital games and can be creating other forms of value. Many of our examples point to a deepening and an extension of the circulation stage with implications for our understanding of when and how digital games are created and indeed the notion of stages in the production process. The production network extends to include game players and the activities within circulation are about driving engagement with game players. These activities may be supported by digital technologies but they are also driven by professional workers and amateur players, and operate within legal, social and cultural structures. This analysis goes beyond simple statements about the importance of marketing to an analysis of new occupational roles and new sources of economic and cultural value that play a role in the success or otherwise of a games service. To focus simply on marketing is to do a disservice to the complexity of games as a service in global markets. Put simply, circulation practices are fundamental to understanding cultural production in the contemporary age in digital games, and indeed in many other online activities.

In the contemporary digital games industry, we see a number of different approaches towards production and circulation. Circulation is informing and shaping creation in the publishing logic, but it is more fundamental and influential in terms of creation in the flow and platform logics. This is particularly the case in free-to-play platform games where monitoring, stimulating and measuring user activity is a core focus and one than can result in significant alterations to the content and the economy of a game. Even in the publishing logic we see that network services and data gathering on players is becoming fundamental to the development of franchises and brands. Finally, we are seeing new forms of advertising that are cross-platform and this form of 'immanent commodification' as Mosco (2009:142) calls it, has become a significant financial element of the economy of networked games. These trends all have implications for the creative autonomy of the development team or core content creators.

Circulation is important across all of our production logics, but the processes within circulation are fundamental to the success of games operating within the platform and performance logics. In MOBA games and e-sports we are seeing game companies design games for repeatability, spectacle and multiplatform viewing and engagement. In platform type games we see game companies designing new forms of creation, engagement and sharing. These games require significant local and regional market support structures and new occupational roles like community management, event management and customer relations are evolving as a result. Communication between these service roles and the core development teams is a key challenge, but interviewees in community management all noted that good communication with producers and development teams was important. Despite this the work of community managers is not necessarily recognised

or rewarded. Our research with community managers found that they were relatively poorly paid and on relatively precarious contracts. Much of this work is outsourced to near to market locations and to agencies, but their location is determined by a complex interplay of the macro financial health of the company and the local incentive culture. In community management we see informal networks, gaming and cultural knowledge playing a significant role in recruitment and a requirement for staff to be mobile and flexible. These factors seem to reinforce a lack of diversity in the workforce and encourage those who self-identify as core or hard core gamers to apply for support positions.

We also explored some of the local and cultural variations in networked digital games – evident not only in the game content but also in the support services. Creating globalised games requires careful planning at the production stage, where code and content assets need to be prepared for localisation. A range of technical, economic and cultural choices are made to make content transnational and to balance cultural specificity with cultural acceptance. Such forms of designed hybridity challenge industrial and popular discussions about cultural homogenisation. The product and the community management support structures explicitly attempt to accommodate local cultural, social, political and economic specificities. Being global is about being prepared for, and attentive to, the local. But not all locals are treated equally. Some markets, demographics and languages are simply seen as too niche or too expensive to warrant professional localisation.

Finally, this chapter explored cultural variations in player practices surrounding games. While many games and game companies accommodate and promote player-generated content, there are also constant negotiations over what is permitted and what is not. Independent professional game players who stream their gameplay are new cultural intermediaries who are taking the place of specialist game magazines and written game reviews. These players are generating advertising, sponsorship revenue and driving sales of games. They assist in the circulation, marketing and commodification of gameplay. While technologies and tools help to shape these relationships, it is clear that there are many people creating paratextual content that exists in an uneasy relationship to the professional game and professional game makers in contemporary transnational production networks.

Author Queries

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