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The backer–developer connection: Exploring crowdfunding's influence on video game production

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Abstract
As video game development studios increasingly turn to digital crowdfunding platforms such as Kickstarter for financing, this article explores the ways in which these processes shape production. It examines in particular the interactions that typically occur between studios and players as part of crowdfunded development, analysing the ways in which these activities inform aspects of video game design. By charting the implications of this burgeoning economic model, the article contributes to scholarship concerning video game production and intervenes within more specific discussions concerning the role of the player within development. The article's case study, which draws from evidence of production concerning multiple Kickstarter projects, is organised into two sections. The first ascertains the degrees to which Kickstarter users can influence the details of a proposed project during a crowdfunding campaign; the second looks at how developers involve crowdfunding communities within production once funding is secured.

Keywords
Audiences, crowdfunding, industry, participatory culture, production, video games

Introduction

Crowdfunding has recently taken an increasingly prominent role in the financing of video game development. Via the high-profile crowdfunding website Kickstarter, for example, the

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amount of money pledged by its user community towards video games rose from US$1.2 million in 2011 to US$57.9 million in 2013 (Bidaux, 2014). One development studio that sought Kickstarter funding during this period was Camouflaj, which launched a campaign via the site in the spring of 2012 so as to finance its inaugural title, *République*. The studio pitched the prospective title as a 'stealth survival' action game to be designed specifically for Apple iPad, iPhone and iPod Touch hardware, incorporating a control scheme that would uniquely utilise these devices' touch-screen inputs (Camouflaj, 2012). The Kickstarter community's response to the project was initially mixed, with many users voicing disappointment concerning the absence of a proposed desktop version of the title (Payton, 2012). At around the midway point of its campaign to raise US$500,000, Camouflaj significantly altered its pitch, promising PC and Mac incarnations of *République*, in addition to the already proposed iOS versions. 'We have heard you guys. We have adjusted our strategy', Camouflaj co-founder Ryan Payton (Berghammer, 2012) announced via a Kickstarter campaign video update. As part of this change in strategy, Camouflaj pledged not to merely port over to desktop computers a game intended primarily for Apple's portable touch-screen devices; instead, it set out to deliver a unique version of *République* specifically designed for PC and Mac 'featuring new gameplay and story elements that speak to the strengths of the platform' (Berghammer, 2012).

The example of *République*, which went on to successfully meet its funding goal and which was released in iOS form in 2013, indicates two distinct routes by which crowdfunding communities can influence video game development processes. First, the example clearly suggests that project backers influenced *République* through providing Camouflaj with the financial resources necessary for development to proceed; simply put, without Kickstarter support, this is a game which might not have otherwise been made.[1] But, second, the example of *République* also suggests that interaction between developers and crowdfunding communities has the capacity to inform in highly specific ways the creative directions that a development project takes. In the case of *République*, Kickstarter users' requests for PC and Mac versions of the game led not only to Camouflaj acceding to these requests; they further motivated the studio to rethink a design concept tailored for touch-screen mobile devices with the aim of ensuring that PC and Mac versions complement the technological specificities of desktop computers (Berghammer, 2012; Payton, 2012).

This article explores in particular this second route by which crowdfunding communities determine video game production; that is, through the interactions that typically occur between studios and prospective players as part of crowdfunded development processes. As we shall see, such interactions typify video game development within the crowdfunding sphere. The economic model of crowdfunding indeed appears to necessitate developers of a given project to frequently interact with actual or prospective project backers, if only so as to either appeal to the latter or satisfy the former. Developers are generally expected to provide crowdfunding communities with deep, regular insight into the development process, while absorbing and responding to their feedback.

The seemingly transparent production processes that crowdfunding entails can be considered as distinct from those that often accompany the conventional publisher-funded model; this being a model that continues to underpin development of many of the video game industry's largest-selling titles. Via this model, major publishers such as Sony, Nintendo, Activision and Electronic Arts limit interaction between the development process and prospective players. Instead of facilitating an ongoing open dialogue

between studios and players, publishers will usually communicate selected information regarding a forthcoming title via carefully timed trailers, screen-shots, press releases, journalistic interviews with development teams and so on. Publishers furthermore tend to mediate activities designed to procure feedback from prospective players, such as focus group research. While there are useful studies that connect the prevalent publisher model to development practices (De Peuter and Dyer Witheford, 2005; Dovey and Kennedy, 2006: 43–62), an investigation into the links between video game development and the industry's burgeoning crowdfunding model is so far absent.

Through its examination of how relationships between studios and crowdfunding communities impact upon video game development, this article aims to provide an original perspective on the links between production practices and economic models. To meet this aim, the article explores a sample of Kickstarter-funded video game development projects. This sample incorporates *République, The Long Dark* (in development), *The Mighty No. 9* (in development), *Godus* (in development), *Star Citizen* (in development), *Elite: Dangerous* (in development), *Shadowrun Online* (in development) and *Sir, You Are Being Hunted* (2014). These particular games have been selected so as to ensure that the sample represents a diverse range of video game genres and project sizes. In terms of genre, for example, the titles range from strategy (Godus) to stealth (*République, Sir, You Are Being Hunted*) and from space simulator (*Star Citizen, Elite: Dangerous*) to side-scrolling action (*The Mighty No. 9*). In terms of project scale, the amount of crowdfunding that each project has received ranges from the relatively modest (£92,551 for *Sir, You Are Being Hunted* [Farokhmanesh, 2012]) to the record-breaking (*Star Citizen* has, at this time of writing, received more than US$48m [*ConsoleTuner*, 2014]).

Drawing from evidence of production concerning these projects – in the form of existing promotional and journalistic material, as well as three original interviews conducted with development-studio bosses – the article traces the influence that Kickstarter backers (and prospective backers) exert upon development.[2] Via this case study, it ultimately argues that the crowdfunding model enables project backers to significantly influence the creative decisions that studios make within development processes, thus distinguishing the crowdfunding production mode from that of traditional publisher funding. Prior to this case study, however, the following section situates this article within broader scholarship regarding the role of players in video game production so as to appropriately contextualise discussion concerning the role that crowdfunding communities serve within development.

Contexts: players, production and participation

As Bryan Behrenshausen (2013: 873–875) observes, games studies has increasingly focused upon the ways in which players engage with video games; key examples of this approach include studies into the myriad social and professional player practices that develop around online, multiplayer and E-sports gaming (Chen, 2009; Crawford et al., 2013; Jin, 2010; Quandt and Kröger, 2013; Taylor, 2006b, 2012). In line with this trend, the field has also seen a related interest emerge concerning the ways in which players interact with video game development processes. Such scholarship includes John Banks' (2013) wide-ranging study of collaborative activity – or what he refers to as 'co-creative' processes – between players and developers. This scholarship also incorporates literature more tightly focused on specific player practices linked to production. A notable example would be the body of work

concerning the activity of modding (i.e. modifying) published video game content (Davidovici-Nora, 2009; Hong and Hsueh-Hua Chen, 2013; Kücklich, 2005; Poor, 2013; Postigo, 2003, 2007, 2008; Sotamaa, 2010; Targett et al., 2012; Taylor, 2006a). This focus on players' interaction with production furthermore connects to broader discussions concerning audience creativity within the contemporary media industries (Burgess and Green, 2009; Green and Jenkins, 2011; Jenkins, 2006).

A key debate within scholarship regarding media users' involvement in media production, including such involvement as players' interactions with video game companies, concerns the implications of these practices for media users. As Lin Zhang and Anthony Y.H. Fung (2013) observe, academic discourses on this topic have largely revolved around two contrasting perspectives. On one hand, scholars highlight the exploitative aspect of co-creative processes whereby users serve as 'free labour' (Terranova, 2000) for media companies and therefore submit, albeit often willingly, to an unequal power structure. Companies profit from users' productive activities via this structure, while co-creators receive little to no financial reimbursement for their efforts and no claims on intellectual property rights for the content they generate (Andrejevic, 2008; De Kosnik, 2013; Kerr, 2013; Kücklich, 2005). On the other hand, scholars emphasise the (non-monetary) rewards that users earn via co-creative activity such as the feelings of gratification resulting from their creativity and the pleasures of feeling part of a user community (Poor, 2013; Postigo, 2003). This perspective furthermore draws attention to the agency that users are often able to exert and enjoy as part of their relationships with media companies (Banks and Humphreys, 2008; Banks and Potts, 2010; Green and Jenkins, 2011). While this article is primarily concerned with how interactions between crowdfunding communities and development studios shape video game content, it nevertheless considers, in addition, the ways in which these interactions relate to these differing perspectives.

A further significant feature of scholarship centred on players' involvement with video game production is its dominant focus on the relationships between players and studios that transpire *following* the commercial release of a title. The body of work therefore speaks to the increasingly persistent nature of video game production. As Aphra Kerr (2013) observes, 'Production does not stop when a product is launched in the marketplace … We need to see production as an ongoing process' (pp. 25–26), which typically includes some form of player input. This input could take the form of data concerning gaming behaviour, for instance, which might result in a studio updating a game.[3] Or it could take the form of players' social media protests influencing changes to a published title.[4] Or it could take the form of in-game user-generated content, or key paratextual material such as wikis, walkthroughs and 'let's play' videos. As a consequence of these and other player practices, video games are thus, observes Kerr (2013), 'technical artefacts' that 'change over time', with this change in part 'induced or produced by users and/or their knowledge, or knowledge about them, and their labour' (p. 27).[5] Scholarly focus on these relationships between players and developers following a game's release is most welcome; yet comparatively little attention has so far been given to the interactions between studios and prospective players prior to a game's launch. By exploring, in particular, the interactions between developers and crowdfunding communities that occur prior to release, this article thus establishes a useful vantage on relationships between players and studios at early stages of production.

The fact that there has so far been relatively little discussion concerning player interaction within production prior to a game's release likely reflects the traditionally limited nature of such interaction within development. This separation between player and studio is evident in, for example, Kerr's (2002) research into the investor-funded development of an online strategy game. In this case (Kerr, 2002), developers had little engagement with users prior to beta testing; they appeared instead 'to have reached their target market by designing for themselves and relying upon implicit and intuitive representations of players' (p. 291).[6] There are, certainly, various counter examples to this practice. The development studio Auran, for instance, engaged strongly with a community of online rail enthusiasts prior to launching its investor-funded train simulator title (Banks, 2013: 66–77); this dedicated group, observes Banks (2013), provided 'useful feedback' that helped 'guide and define ongoing development' (p. 72). A further example would be the production of LucasArts' *Star Wars Galaxies*, during which the project's creative director, Ralph Koster, founded a co-creative relationship with the large online community that formed around the development (Jenkins, 2006: 164–172). But more commonly, at least within a boxed game sector that is operated by large publishers and video game console manufacturers, publishers mediate interaction between developers and prospective players (Kerr, 2013: 26). Via this model, publishers and developers furthermore restrict the public dissemination of information concerning production. While, with *Star Wars Galaxies*, Koster (2006) endeavoured to operate a transparent and inclusive production process, he observes that his approach is atypical: 'These days', he says, 'it's accepted wisdom that you don't reveal a [game] feature until it's done, so as to guarantee that you never let the players down'. Yosuke Matsuda (Williams, 2013), senior executive managing director of the publisher Square Enix, concurs with this view that standard publisher practice restricts developers' communication with prospective players. Via this approach, he notes, 'Customers wait for years with little to no information'.

Development processes within the crowdfunding space, which are typified by an ongoing dialogue between developers and players, thus operate in contrast to traditional production practices. Developers furthermore discursively frame these opportunities for backer engagement in highly positive terms. According to many developers, one of the benefits of this increased connection between studios and player communities is the constructive influence the latter can exert on development. For example, on the day his studio secured Kickstarter financing for its sci-fi role-playing game *Consortium*, Interdimensional Games CEO Gregory MacMartin (Zellmer, 2013) suggested that contributor participation could enhance production. 'We now have a community of gamers that are eager to join us in these final months of development to help us shape this interactive experience', he said. Hinterland Games creative director Raphael van Lierop (2013, personal communication) similarly suggests that the process of 'ongoing dialogue' between developer and backer as part of the crowdfunding process can positively influence development. Concerning the creation of his studio's Kickstarter-backed first-person survival adventure *The Long Dark*, van Lierop (2013, personal communication) claims that direct interaction with the backer community will enable the developer to 'make a better game'. Veteran developer Keiji Inafune (Comcept USA, 2013), whose studio achieved Kickstarter funding for its two-dimensional (2D) action-platformer *Mighty No. 9*, also views the participatory culture that the crowdfunding sphere facilitates as a boon to production. 'I think Kickstarter is an amazing system allowing game creators and fans to connect, communicate and create things – together', he says.

Developers often use such enthusiastic discourses regarding crowdfunded co-creative processes as a way to promote their projects through the promise of participation, and so their celebratory tone should be considered with some degree of scepticism. Nevertheless, these claims do raise a particular question; namely, how does this co-creativity operate within crowdfunded video game production? Or, to put it another way, precisely how does the involvement of crowdfunding communities within development contribute, as claimed, to the 'making', 'shaping' and 'creating' of video games? Through its examination of the ways in which relationships between studios and players inform development processes, these are questions that the following case study aims to directly address. The study is organised into two distinct sections, with each section concerned with a separate distinct phase of interaction between a given studio and a Kickstarter community. These two phases are the *campaign phase* and the *post-campaign phase*. The following section focuses on the campaign phase specifically, which relates to that period in which a Kickstarter campaign is occurring.

Backer–developer interaction: Campaign phase

Having revealed initial details of its proposed project, and having set a funding target that must be met in order for any monies to be received, the development studio in the campaign phase is typically engaged in sustained communication with the Kickstarter community. The length of this phase is variable and determined by the studio, but 30-day durations or similar are common. As part of a campaign, a studio will usually provide an in-depth outline regarding details of the proposed game on its Kickstarter project page. It will also likely drip-feed additional project details via updates on this page, thus potentially sustaining the community's interest, while also possibly extending the coverage that the project will receive within the online gaming press. Such updates might include the reveal of new concept art or an announcement regarding the recruitment to the development team of a popular creative talent, such as a cult composer or voice artist. But the studio is also likely to respond to queries and feedback from the community via the comments section attached to its project page, as well as via email and social media.

As part of a campaign, a community is also able to communicate directly to a studio via these same electronic means, voicing support, queries and/or concerns. Often this will lead to a studio responding in turn with clarification or elaboration concerning its previously established development strategy. However, community feedback can also result in a studio course-correcting its outlined plans. This is evident in the aforementioned case of *République*. It was community pressure that contributed to Camouflaj opting to develop the title for PC and Mac, in addition to iOS touch-screen devices; it was this pressure in turn that ultimately led to the studio rethinking aspects of design so as to take into account the specific hardware specifications of desktop platforms. One key example of the way in which Camouflaj has looked to exploit the specificities of PC and Mac computers relates to how the player interacts within the fiction of *République*, the premise of which concerns the fate of Hope – a character trapped within a totalitarian state. Within the iOS version of the game, the player is charged with hacking and manipulating surveillance devices within the game world, such as security cameras, so as to guide Hope. Following the decision to develop the title for desktop computers, the studio began to consider the unique ways in which PC and Mac versions might permit the

player to utilise the game world surveillance devices. The studio, for example, envisaged the player of the PC and Mac version being able to have multiple windows simultaneously open on a single screen, with each window providing the perspective of a particular game world security camera or map, which is a design feature that would be untenable on an iOS small screen device (Berghammer, 2012).[7] In this case, Kickstarter community input during the campaign phase ultimately led to Camouflaj deliberating design features concerning platforms for which it had previously no intention to develop.

This case of Kickstarter community feedback leading to a studio changing direction within the campaign phase is not an isolated one. A further example would be Cliffhanger Productions' Kickstarter-funded *Shadowrun Online*, a massively multiplayer online role-playing game (MMORPG) set within a cyberpunk fictional universe. While, with *République*, Camouflaj altered its platform release strategy, in the case of *Shadowrun Online*'s campaign phase, Cliffhanger Productions transformed the game's proposed revenue model. *Shadowrun Online* had originally been conceived as a 'free-to-play' (F2P) game. Via this model, which has become increasingly popular for MMORPGs in recent years, players do not pay money up front so as to play a given MMO; instead, the player is usually able to purchase with real money fictional in-game items (such as weapons and outfits), which might enable the player to progress more easily within the game. But many members of the Kickstarter community responded negatively to Cliffhanger Productions' proposed adoption of this model, suggesting the scheme imbued a 'pay-to-win' component within the design; in other words, the community members feared that those players who spent the most money on in-game items might have an advantage during player versus player (PvP) combat encounters (Cliffhanger Productions, 2012). Following the community's voicing of this concern, the developer altered its business plan 6 days into *Shadowrun Online*'s campaign launch, proposing a so-called campaign revenue model designed to operate alongside the free-to-play model. Via the proposed campaign model, players can pay a one-time fee of US$39.99, allowing them to purchase any in-game items via an in-game currency (to be earned through the playing of the game). The introduction of the campaign model to the *Shadowrun Online* project, then, altered the design of the proposed multiplayer experience by reducing the potential for players to purchase their way to victory as part of mismatched PvP encounters. This shift in economic model was furthermore apparently a direct response to Kickstarter community disquiet. As Cliffhanger Productions (2012) stated when it revealed the campaign model via Kickstarter update, 'We had the game originally planned with the free-to-play model … but if you think differently – we adapt'.

These two cases provide some indication concerning the ways in which interaction between developers and crowdfunding communities during a Kickstarter campaign can influence studio strategy and more specifically approaches to game design. Such instances of studios disrupting carefully conceived plans in response to such interactions might be seen as reflective of producers having embraced the ethos of co-creativity that much of the video game industry prohibits, yet which crowdfunding processes enable. But developers' modifications of development strategy during the campaign phase might be simultaneously understood as pragmatically serving studios' economic interests. On one hand, such changes permit studios to discursively position themselves during campaigns as being highly responsive to Kickstarter community feedback ('we adapt'; 'We heard you guys'); such activity in turn has the potential to increase the attractiveness of a studio to those many community members desiring a degree of involvement in a given

development process. As Hinterland Games' van Lierop (2013, personal communication) suggests, the promise of co-creation appears to be a key factor motivating financial contributions to video game projects; 'Backers are … pledging to feel like they are part of the process of creating the game', he observes. By taking clear actions in response to feedback received during a campaign phase, studios clearly signal their openness to co-creative activities. On the other hand, it is – in certain circumstances – the nature of the particular change in development strategy itself that can serve a key economic purpose during the campaign phase. In the case of *République*, for example, Camouflaj's specific decision to develop for desktop computers, in addition to iOS devices, appears to have been integral to the project reaching its funding target. The Kickstarter campaign had struggled throughout much of its duration, but, according to Payton (2012), it was the promise of desktop versions that reversed the campaign's fortunes 'and pushed us over the line'.[8] At least in some cases, then, studios might regard specific alterations to development plans – in response to the demands of a crowdfunding community – as steps highly necessary to achieving funding goals.

The case of *République*, together with that of *Shadowrun Online*, furthermore indicates the potential for crowdfunding communities to exert a high level of control over a project's direction within a given campaign phase; this appears to be especially the case if a campaign is struggling to meet its funding target. Via the conventional publisher model, prospective players typically have no direct input regarding decisions related to intended hardware platform or revenue model. Publishers will instead typically form their decisions on the basis of sales data. Yet, in the crowdfunding space, prospective players have been able to induce fundamental changes in studio strategy with regard to these issues, essentially establishing a project's boundaries for the post-campaign phase.

This high degree of agency whereby backers or potential backers can dictate the fundamental directions a project takes should not be considered typical within co-creative practices. With regard to the production of user-generated content, for example, both Kerr (2013) and Andrew Mactavish (2008) observe the tight control that publishers are able to exert over the creative agency of its consumers (for instance, through publishers' ownership and modification of such content). However, as John Banks and Jason Potts (2010) argue, player agency as part of co-creative processes is not always constrained within a rigid publisher-imposed framework. There are instead, they observe (Banks and Potts, 2010), circumstances in which the 'consumer is an agent, able to make a deal' (p. 257). *République* and *Shadowrun Online*'s respective campaign phases provide examples of agency being exerted in such circumstances.

The cycle of communication between studio and crowdfunding community that typifies the campaign phase usually carries over into the post-campaign phase. Studios of Kickstarter-funded projects will likely issue written and video updates to their backers via emails, social media and project page posts. Studios are indeed often obliged to do so, as many Kickstarter projects during a campaign phase promise exclusive updates to backers as reward for their patronage. Backers of successful Kickstarter campaigns, in turn, often continue to offer ideas, opinions and criticisms to the studio via the same channels of communication. But, as the following section discusses, the post-campaign phase sees some studios and crowdfunding communities engage in different types of interaction, as the former often looks to increase the latter's level of involvement with the development process in various structured ways.

Backer–developer interaction: Post–campaign phase

In the post-campaign phase, developers often seek to harness feedback on a large scale, with this often being achieved through the online polling of backers regarding aspects of design. For example, the studio Comcept, as part of the *Mighty No. 9* development, invited its backer community to select from a number of options the costume design and physical appearance of a particular in-game character (Karam et al., 2013). In other cases, however, studios' polling of backers can be a far more in-depth process. In the case of Frontier's Kickstarter-funded development of the space-travel simulator *Elite: Dangerous*, for example, the studio solicited feedback concerning a wide range of fine details, such as fuel consumption rates and the speed levels of particular flight modes, via a series of 17 separate polls (Frontier, 2013).

In some instances, the practice of polling and surveying the community has resulted in developers significantly shifting their approaches to content creation. This occurred, for example, early in Cloud Imperium Games' development of its Kickstarter-funded space trading and combat simulator *Star Citizen*. As part of a poll, the studio asked backers to each select their preferred role within the 'open-world' game, so as to discern the type of in-game activities that players would gravitate towards. The category 'explorer' topped the poll, which motivated a change of approach within development. The studio had previously assumed that players would prioritise combat-related gameplay, such as spaceship battles, and so had been focussed on developing content that would be appropriate for such a preference (Nutt, 2013). However, due to this poll result, the studio turned its attention to developing a greater amount of content for those players who wanted to explore the galaxies of the game's fictional universe. According to Cloud Imperium Games' founder Chris Roberts (Nutt, 2013), who worked previously at Microsoft and Electronic Arts, such significant information regarding player preference would not have been known to the development team had the studio been working via the conventional publisher model.

Despite Roberts' claim here regarding the deficiencies of the conventional model, publishers nevertheless do typically carry out various activities that bear similarity to these post-campaign interactions that play out between backers and crowdfunded studios. Publishers, for example, will often carry out in-house market research, as well as recruit specialist third-party companies to conduct polls, surveys and focus groups (Kline et al., 2003: 202). But, from Roberts' point of view, due to the often-large size of a given backer community and its high engagement with a project, community feedback has the potential to be more useful than that emerging from publisher-commissioned research. According to Roberts (Nutt, 2013), the *Star Citizen* community, for example, serves as a far superior focus group than one that a publisher would traditionally put together. 'Normally, at a publisher, you get a recruited focus group and it's got 30 people in it', says Roberts (Nutt, 2013):

> And who the hell knows if that's a good focus group for your game? But when you've got 100,000 or 200,000 people that love games, and they're willing to give you money before it's ready, you've probably got a good focus group.

In addition to polling and surveying its community, using its feedback as a 'barometer' as Roberts (Bertz, 2013) puts it, crowdfunded studios sometimes involve backers in the post-campaign phase by providing access to test builds. These 'alpha' and 'beta' versions of

a game are assembled prior to release, but studios will often grant backers access to them as 'reward' for their pledges. Backers are furthermore encouraged to feed back opinions to developers formed on the basis of their own experiences with the test builds, which can lead to developers reworking aspects of design. The post-campaign phase of development studio Big Robot's first-person stealth game *Sir, You Are Being Hunted* serves as an example of such processes. According to Big Robot's founder Jim Rossignol (2013, personal communication), backer feedback concerning the game's alpha code influenced changes regarding 'user experience elements'. One such change relates to how the game signals to players the location and artificial intelligence state of enemy non-playing characters (NPCs). As part of the game's fiction, enemy NPCs take the form of robot hunters that track the player-character across a rural landscape. Within the initial alpha build, players were only able to identify the presence and AI behavioural state of those robots out of view by way of audio cues. However, following concern from some backers that this aspect of design led to a game that was perhaps too challenging, as well as one prohibitive towards the hard of hearing, Bad Robot added optional 'visual indicators' to the user interface. These indicators signal to players the location of robots that might be obscured by buildings or hills, as well as alert players via symbols to changes in robot AI states, such as when a robot spots a player and approaches them. Rossignol (2013, personal communication) confirms that such usability changes were dependent on backer input gleaned via players' engagement with *Sir*'s alpha build. 'Decisions such as these would never have been made it if had been left to us', he said (2013, personal communication), 'and we've had to be told by a number of players that such changes were required'.

The practice of providing backers with access to alpha and beta versions furthermore assists the development studio's quality assurance (QA) testing procedure, which aims to resolve any in-game bugs or glitches. For larger publisher-funded projects, it is often a combination of a publisher's QA department, a developer's dedicated QA team, as well as groups of temporary freelance testers, that carries out this process (Kline et al., 2003: 203). However, for small independent development studios, of which many have recently turned to Kickstarter for project financing, such dedicated personnel are often absent from the process. Therefore, developers sometimes rely on those backers engaged with alpha and beta builds to report any programming errors.[9] Because of the nature of certain game design concepts, such player input can be invaluable, as has been the case, for example, with the development of *Sir You Are Being Hunted*. One of the title's core design features is its procedurally generated game world, which ensures that each play through of the game generates a unique version of the landscape. This variability of game world made it extremely difficult for Big Robot's small team to track bugs across myriad variations in level design. As Rossignol observes (2013, personal communication), 'An issue might appear one in a thousand generations, and if only three of us are generating levels, we'll never see it'. However, the project's large community of backers essentially provided a QA solution to this challenge. Notes Rossignol (2013, personal communication):

> If five thousand people are generating levels then the chances of spotting serious issues are increased, and in that way the backers getting early access and examining the game as it's being worked on ends up improving the end result.

In the post-campaign phase, then, backers often continue to serve a role in development, taking on dual roles as volunteer playtesters and sounding boards for studio ideas. In these cases, Kickstarter backers have not only fully or part financed development but they are also freely performing particular and necessary production tasks, which – via the conventional publisher model – would typically require payment. For some developers, it is this arrangement whereby a community of backers can contribute en masse to development within the post-campaign phase that makes crowdfunding an especially attractive source of financing. This is the view of veteran video game developer Peter Molyneux, for example, whose studio 22Cans received Kickstarter backing for its 'god game' *Godus*. According to Molyneux, the Kickstarter process represents an opportunity to not only gain funding but also harness the input capacity of a community of backers in the post-campaign phase. Molyneux (nofi, 2012) indeed suggests that the developer configured its campaign with this aim in mind, ensuring that all but the lowest value campaign pledge tiers provided backers with access to the *Godus* alpha and beta builds. According to Molyneux (nofi, 2012):

> The real secret to making games is simple: you get as many people you can to play the game for as long as possible as you develop … Kickstarter is not just about getting money it's about truly involving people in a structured way to make the best experience.

Such examples of interaction between backers and studios during the post-campaign phase do not, however, characterise all Kickstarter-funded development projects. In some cases, studios are less inclined to firmly integrate backers into the development process, as was the case with Camouflaj during the post-campaign development phase of *République*, for example. As Payton (2013, personal communication) acknowledges, 'Our communication with our backers is most often one-way. We reply to all the messages that come in, but we haven't put a lot of focus on creating a forum for back-and-forth with the community'. The studio's decision not to rely on backer input during this period appears to have been down to two related reasons. First, the studio did not view *République*, which was in part conceived as a carefully structured narrative experience, as being a type of game that would especially benefit from a co-creative process; second, the studio did not regard the co-creative process as being compatible with the studio aim of maintaining a strong degree of institutional authorship over this narrative experience. Says Payton (2013, personal communication):

> It's not that we don't care what the community has to say, but rather, I think it's because of the type of project we're developing. For a strategy or multiplayer game like *Godus*, I think it makes a lot of sense to have a constant stream of dialogue between the development team and the backers … Due to the narrative-focus of *République* and our team's desire (from the very beginning) to break away from large companies and just make the game we've always wanted to make, we haven't reached out to the community for design feedback as much as other projects.

Payton (Reynolds, 2013) further stresses that key design challenges Camouflaj faced during development, which related to *République*'s unique touch-screen gameplay, were

not challenges that the game's backers were well equipped to assist with. He observes, 'We knew we couldn't rely on [backers] to help us solve complex design problems that even our veteran crew was fighting to solve'.

The case of *République* is instructive in considering the relationship between backers and studios as part of the post-campaign phase. It indicates that the variability of project type, as well as developers' particular attitudes towards the creative process, can inform the extent to which these two groups interact. More generally, the other cases featured within this section suggest that backer input within this phase can be highly structured. In various crowdfunded development processes discussed here, backers furthermore served roles that have analogues within more conventional development practice. The *Star Citizen* backer community was utilised as a superior focus group within the game's development (but as a focus group nonetheless). The *Sir You Are Being Hunted* backer community, meanwhile, has performed a role comparable to that of a QA department. The top-down structures imposed in the post-campaign phase thus contrast with the backer–developer power dynamic of the campaign phase, whereby crowdfunding communities have the potential to insist on significant changes in development (as in the cases of *République* and *Shadowrun Online*). By setting the terms by which co-creativity occurs within the post-campaign phase, developers ensure that backer input becomes part of the wider co-creative practice of what Mactavish (2008) labels 'authorized production'. But while developers' control over the nature of backer input might weaken the agency of crowdfunding communities, it does not necessarily lessen the impact that their input has on a project's creative direction. The case of *Star Citizen* community poll-results motivating Cloud Imperium Games to generate a raft of new in-game content, for example, indeed indicates that the potential for backer influence persists within the post-campaign phase.

Conclusion

This article reveals how co-creativity within video game development plays out within the crowdfunding space. It highlights ways in which these processes depart from conventional practices carried out in publisher-funded production. While direct communication between studios and prospective players during development is, under the purview of publishers, often limited, interaction between these two social groups is ongoing from the early stages of development in the crowdfunding sphere. This article shows how communications between studios and prospective players during crowdfunding campaigns can instigate significant shifts concerning proposed project details, as was the case with the *République* and *Shadowrun Online* campaigns. The campaign phase is thus not only a period in which a studio looks to secure funding for its development project and form a community around it; this is also a period in which developers and prospective players can negotiate and contest the parameters of a project. In the post-campaign phase, as the article further indicates, studios often organise their production so as to channel backer communities' input in highly structured ways. Soliciting feedback from backers via polls, and recruiting backers as testers, studios often ensure that crowdfunding communities serve important roles throughout the development process.

While this study reveals a range of insights concerning the relationship between development studios and backer communities, further scholarship is necessary regarding video game development in the crowdfunding space. Gaining perspectives on additional aspects of this industrial process – including social groups other than studios and backers – would be a useful next step. Research into how studios balance the need of backers with, for example, those of the professional investors that are increasingly contributing additional funding to crowdfunded projects might be advantageous.[10] Attention might also be given to the strategies studios deploy so as to ensure that their content will be appropriate for a wider gaming audience on release, while simultaneously satisfying their core crowdfunding community. Such lines of enquiry would help establish a more detailed understanding concerning the specificities of the crowdfunding model and its implications to video game production.

Taking a wider perspective on the rise of digital crowdfunding, further research is also required to understand the implications of crowdfunding processes for backers – academic work that would benefit from the interviewing of crowdfunding community members. As this article acknowledges, the interactions between development studios and backer communities form part of a far larger field of co-creativity involving media companies and media users. Yet the requirement for backers to contribute money directly to development distinguishes crowdfunded processes from many other examples of co-creativity. While a modder or a fan fiction writer or message board user might willingly enable media companies to profit from their activities without receiving any payment in return, crowdfunding communities are in addition often paying for the opportunity to function as free labour. Despite serving as the financial impetus for many development projects, backers are furthermore not only without ownership of content they have helped finance, but they are also without monetary protection should a funded video game project go on to be cancelled (Gera, 2012). Detailed consideration of the specificities of digital crowdfunding, and the implications of these specific features for crowdfunding communities, is thus necessary to further inform wider debates concerning the role of users in media production.

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Notes

1. Payton (Reynolds, 2013) speculates that, without financial backing from the Kickstarter community, the game 'would never have seen the light of day'.
2. The three original interviews were conducted via email Q&A. The three interviewees were Ryan Payton, co-founder of Camouflaj, which developed *République* (interview conducted, 29 October 2013); Jim Rossignol, founder of Big Robot, which developed *Sir, You Are Being Hunted* (interview conducted, 7 January 2014); and Raphael van Lierop, creative director of Hinterland Games, which is currently developing *The Long Dark* (interview conducted, 21 November 2013).
3. The developer Rockstar North, for example, carried out maintenance on the online component of *Grand Theft Auto V* so as to curb the player practice of creating and disseminating counterfeit in-game money (Makuch, 2014).

4. For example, online player protests regarding the narrative conclusion of *Mass Effect 3* led to its developer BioWare producing downloadable content that augments the original ending (Their, 2012).
5. This line of thinking regarding video game production parallels theoretical moves within the field to understand video games not as permanent objects but rather as continual processes (Malaby, 2007) or as changeable cultural facilities (Consalvo, 2009) that alter via player engagement.
6. Philippe Ross (2014) considers in depth the theoretical implications of this practice whereby media producers conceptualise an intended audience absent from production processes.
7. Whether or not this and other discussed features are ultimately implemented within the desktop versions of *République* remains to be seen. At the time of writing, while the iOS version of the game has been released, the PC and Mac versions are still in development, with the Camouflaj team yet to determine the precise direction that the project will take (Crecente, 2014).
8. Data bear this view out, with approximately half of the project backers signalling their intention to play the game on desktop versions (Payton, 2012).
9. The use of player communities as unpaid testers is not, however, a practice restricted to crowdfunded projects. In the case of online multiplayer games, developers often recruit user communities to beta test content. See Banks (2002), Kerr (2002: 290) and Taylor (2006b: 155).
10. Warhorse studios' *Kingdom Come: Deliverance* (in development) is one such example of a project being funded by a combination of crowdfunding and private investment (Hart, 2014).

References

Andrejevic M (2008) Watching television without pity: the productivity of online fans. *Television & New Media* 9(1): 24–46.

Banks J (2002) Gamers as co-creators: enlisting the virtual audience – a report from the net face. In: Balnaves M, O'Regan T and Sternberg J (eds) *Mobilising the Audience*. St. Lucia, QLD, Australia: University of Queensland Press, pp. 188–212.

Banks J (2013) *Co-Creating Videogames*. London: Bloomsbury.

Banks J and Humphreys S (2008) The labour of user co-creators: emergent social network markets. *Convergence* 14(4): 401–418.

Banks J and Potts J (2010) Co-creating games: a co-evolutionary analysis. *New Media & Society* 12(2): 253–270.

Behrenshausen B (2013) The active audience, again: player-centric game studies and the problem of binarism. *New Media & Society* 15(6): 872–889.

Berghammer B (2012) Update #5: *République* announced for PC and Mac. *Kickstarter*, 26 April. Available at: https://www.kickstarter.com/projects/486250632/republique-by-camouflaj-logan/posts/215609 (accessed 25 August 2012).

Bertz M (2013) *Star Citizen*: interview: Chris Roberts charts a course for *Star Citizen*. *Game Informer*, 13 March. Available at: http://www.gameinformer.com/games/star_citizen/b/pc/archive/2013/03/13/interview-chris-roberts-charts-a-course-for-star-citizen.aspx (accessed 5 January 2014).

Bidaux T (2014) 2013 games on Kickstarter. *Gamasutra*, 10 January. Available at: http://gamasutra.com/blogs/ThomasBidaux/20140110/208410/2013_for_games_on_Kickstarter.php (accessed 12 January 2014).

Burgess J and Green J (2009) *YouTube*. Cambridge: Polity Press.

Camouflaj (2012) *République* by Camouflaj + Logan. *Kickstarter*, April. Available at: https://www.kickstarter.com/projects/486250632/republique-by-camouflaj-logan (accessed 17 May 2012).

Chen MG (2009) Communication, coordination, and camaraderie in *World of Warcraft. Games and Culture* 4(1): 47–73.

Cliffhanger Productions (2012) Update #3: we've solved the free-to-play issue and added new rewards. *Kickstarter*, 24 July. Available at: https://www.kickstarter.com/projects/1964352341/shadowrun-online/posts?page=8 (accessed 14 August 2013).

Comcept USA (2013) *Mighty No. 9. Kickstarter*, August. Available at: https://www.kick-starter.com/projects/mightyno9/mighty-no-9 (accessed 20 September 2013).

Consalvo M (2009) There is no magic circle. *Games and Culture* 4(4): 408–417.

ConsoleTuner (2014) *Star Citizen* blasts past $48 million in funding, makes $1 million in three weeks. *ConsoleTuner*, 14 July. Available at: http://www.consoletuner.com/star-citizen-blasts-past-48-million-in-funding-makes-1-million-in-three-weeks/ (accessed 25 July 2014).

Crawford G, Gosling VK and Light B (eds) (2013) *Online Gaming in Context: The Social and Cultural Significance of Online Games*. New York: Routledge.

Crecente B (2014) How 500 nights of misery and a little faith gave *République* hope. *Polygon*, 20 January. Available at: http://www.polygon.com/2014/1/20/5319770/republique (accessed 25 January 2014).

Davidovici-Nora M (2009) The dynamics of co-creation in the video game industry: the case of *World of Warcraft. Communications & Strategies* 73: 43–66.

De Kosnik A (2013) Fandom as free labor. In: Schloz T (ed.) *Digital Labor: The Internet as Playground and Factory*. New York: Routledge, pp. 98–111.

De Peuter G and Dyer Witheford N (2005) A playful multitude? mobilising and counter mobilising immaterial game labour. *The Fibreculture Journal* 5. Available at: http://five.fibreculturejournal.org/fcj-024-a-playful-multitude-mobilising-and-counter-mobilising-immaterial-game-labour/ (accessed 5 December 2013).

Dovey J and Kennedy HW (2006) *Game Cultures: Computer Games and New Media*. Maidenhead: Open University Press.

Farokhmanesh M (2012) Sir, You Are Being Hunted Kickstarter comes to a close. *Polygon*, 2 December. Available at: http://www.polygon.com/2012/12/2/3717170/sir-you-are-being-hunted-kickstarter-comes-to-a-close (accessed 25 July 2014).

Frontier (2013) In system travel polls. Available at: http://forums.frontier.co.uk/forum-display.php?f=38

Gera E (2012) Why Kickstarter 'can't' and won't protect backers once a project is funded. *Polygon*, 20 January. Available at: http://www.polygon.com/gaming/2012/6/27/3099051/backers-rights-what-kickstarter-funders-can-expect-when-they-pledge (accessed 5 May 2014).

Green J and Jenkins H (2011) The moral economy of Web 2.0: audience research and convergence culture. In: Holt J and Perren A (eds) *Media Industries: History, Theory and Method*. Hoboken, NJ: Wiley-Blackwell, pp. 213–226.

Hart J (2014) Kickstarter project aims to fund 'realistic' medieval RPG for Xbox One, PS4. *Examiner*, 22 January. Available at: http://www.examiner.com/article/kickstarter-project-aims-to-fund-realistic-medieval-rpg-for-xbox-one-ps4 (accessed 28 January 2014).

Hong R and Hsueh-Hua Chen V (2013) Becoming an ideal co-creator: web materiality and intensive laboring practices in game modding. *New Media & Society*. Epub ahead of print 25 March. DOI: 10.1177/1461444813480095.

Jenkins H (2006) *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press.

Jin DY (2010) *Korea's Online Gaming Empire*. Cambridge, MA: The MIT Press.

Karam DA, Imaeda K and MacDonald M (2013) Update #36: the winner takes it (C)all (official Call vote results!). *Kickstarter*, 29 December. Available at: https://www.kickstarter.com/projects/mightyno9/mighty-no-9/posts/706604 (accessed 11 January 2014).

Kerr A (2002) Representing users in the design of digital games. In: Mayra F (ed.) *Proceedings of Computer Games and Digital Cultures Conference*. Tampere: Tampere University Press, pp. 277–295.

Kerr A (2013) Player production and innovation in online games. In: Crawford G, Gosling VK and Light B (eds) *Online Gaming in Context: The Social and Cultural Significance of Online Games*. New York: Routledge, pp. 25–39.

Kline S, Dyer-Witheford N and De Peuter G (2003) *Digital Play: The Interaction of Technology, Culture and Marketing*. Montreal, QC, Canada: McGill-Queen's University Press.

Koster R (2006) Community building. *Ralph Koster's Website*, 19 July. Available at: http://www.raphkoster.com/2006/07/19/community-building/ (accessed 2 August 2013).

Kücklich J (2005) Precarious playbour: modders and the digital games industry. *The Fibreculture Journal* 5. Available at: http://five.fibreculturejournal.org/fcj-025-precarious-playbour-modders-and-the-digital-games-industry/ (accessed 19 November 2013).

Mactavish A (2008) Licensed to play: digital games, player modifications, and authorized production. In: Schreibman S and Siemens R (eds) *A Companion to Digital Literary Studies*. Oxford: Blackwell, pp. 349–368.

Makuch E (2014) *GTA 5* cheaters: Rockstar is hunting you down. *Gamespot*, 16 January. Available at: http://www.gamespot.com/articles/gta-5-cheaters-rockstar-is-hunting-you-down/1100-6417161/ (accessed 20 January 2014).

Malaby TM (2007) Beyond play: a new approach to games. *Games and Culture* 2(2) 95–113.

nofi (2012) Interview: Peter Molyneux talks *Godus*, Kickstarter and managing expectations. *The Sixth Axis*. Available at: http://www.thesixthaxis.com/2012/11/30/interview-peter-molyneux-talks-godus-kickstarter-and-managing-expectations/ (accessed 27 December 2013).

Nutt C (2013) Chris Roberts on *Star Citizen* success, and why he doesn't want a publisher. *Gamasutra*, 26 September. Available at: http://www.gamasutra.com/view/feature/200998/chris_roberts_on_star_citizen_.php (accessed 5 January 2014).

Payton R (2012) How Camouflaj saved *République*'s Kickstarter. *Gamasutra*, 20 August. Available at: http://www.gamasutra.com/view/feature/176187/how_camouflaj_saved_rpubliques_.php (accessed 25 August 2012).

Poor N (2013) Computer game modders' motivations and sense of community: a mixed methods approach. *New Media & Society*. Epub ahead of print 24 September. DOI: 10.1177/1461444813504266.

Postigo H (2003) From Pong to Planet Quake: post industrial transitions from leisure to work. *Information, Communication & Society* 6(4): 593–607.

Postigo H (2007) Of mods and modders: chasing down the value of fan-based digital game modifications. *Games and Culture* 2(4): 300–313.

Postigo H (2008) Video game appropriation through modifications: attitudes concerning intellectual property among modders and fans. *Convergence* 14(1): 59–74.

Quandt T and Kröger S (eds) (2013) *Multiplayer: The Social Aspects of Digital Gaming*. New York: Routledge.

Reynolds M (2013) *République* interview: Camouflaj on episodes, Kickstarter and iOS release. *Digital Spy*, 20 December. Available at: http://www.digitalspy.co.uk/gaming/interviews/a539781/republique-interview-camouflaj-on-episodes-kickstarter-ios-release.html (accessed 11 January 2014).

Ross P (2014) Were producers and audiences ever separate? Conceptualising media production as social situation. *Television & New Media* 15(2): 157–174.

Sotamaa O (2010) When the game is not enough: motivations and practices among computer game modding culture. *Games and Culture* 5(3): 239–255.

Targett S, Verlysdonk V, Hamilton H, et al. (2012) A study of user interface modifications in *World of Warcraft*. *Game Studies* 12(2). Available at: http://gamestudies.org/1202/articles/ui_mod_in_wow (accessed 25 October 2013).

Taylor TL (2006a) Does *WoW* change everything? How a PvP server, multinational player base and a surveillance mod scene caused me pause. *Games and Culture* 1(4): 318–337.

Taylor TL (2006b) *Play between Worlds: Exploring Online Game Culture*. Cambridge, MA: The MIT Press.

Taylor TL (2012) *Raising the Stakes: E-Sports and the Professionalization of Computer Gaming*. Cambridge, MA: The MIT Press.

Terranova T (2000) Free Labor: producing culture for the digital economy. *Social Text* 63(18): 33–58.

Their D (2012) BioWare founder Ray Muzyka steps into debate over *Mass Effect 3* ending. *Forbes*, 21 March. Available at: http://www.forbes.com/sites/davidthier/2012/03/21/bioware-founder-steps-into-debate-over-mass-effect-3-ending/ (accessed 8 January 2014).

Williams M (2013) Square Enix: Kickstarter the way forward in customer interaction. *Games Industry International*, 27 May. Available at: http://www.gamesindustry.biz/articles/2013-05-27-square-enix-kickstarter-the-way-forward-in-customer-interaction (accessed 24 January 2014).

Zellmer D (2013) Exclusive – interview with Kickstarter funded RPG *Consortium* developer iDGi. *iGR*, 16 April. Available at: http://www.igameresponsibly.com/2013/04/16/igr-exclusive-interview-with-kickstarter-funded-rpg-consortium-developer-idgi/ (accessed 7 December 2013).

Zhang L and Fung AYH (2013) Working as playing? Consumer labor, guild and the secondary industry of online gaming in China. *New Media & Society*. Epub ahead of print 28 February. DOI: 10.1177/1461444813477077.

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