Keogh, Brendan. "Between aliens, hackers and birds: Non-casual mobile games and casual game design." *Social, Casual and Mobile Games: The changing gaming landscape*. Ed. Tama Leaver and Michele Willson. New York: Bloomsbury Academic, 2015. 31–46. *Bloomsbury Collections*. Web. 26 Apr. 2023. <<http://dx.doi.org/10.5040/9781501310591.ch-003>>.

Downloaded from Bloomsbury Collections, www.bloomsburycollections.com, 26 April 2023, 11:40 UTC.

Copyright © Tama Leaver, Michele Willson and Contributors 2016. You may share this work for non-commercial purposes only, provided you give attribution to the copyright holder and the publisher, and provide a link to the Creative Commons licence.

3

Between aliens, hackers and birds: Non-casual mobile games and casual game design

Brendan Keogh

The January 2012 issue of video game magazine *Edge* did not display a high-definition render of an upcoming blockbuster game on its cover. It simply showed the increasingly ubiquitous logo of technology company Apple, creators of the iPhone. 'Apple has changed the video game industry irrevocably' the corresponding feature starts. 'And the simple truth is that it has changed it without even really trying. It did it with a handheld device that has no buttons, no sticks and no ports for physical media, and it did it with a virtual storefront that was created, in the main, to revolutionize the way people bought music, not videogames' (*Edge* 2012, 77). As devices that traditionally brought together digital screens and buttons, that video games would appear on mobile phones in one fashion or another was inevitable. But it was not until the rise in popularity of the iPhone series and the parallel rise of casual games that mobile games began to be treated as 'legitimate' games – games worth paying attention to. This, as the *Edge* feature reports, was despite Apple's ambivalence towards gaming and the device's utter lack of buttons.

Smartphones such as Apple's iPhone and Samsung's Galaxy series have fostered homes to a broader and more eclectic ecology of video games than

any previous mobile or handheld device; from social to single-player games; high budget to amateur games; publicly to privately played games; blockbuster games that sell tens of millions to niche games that sell a few dozen. The iPhone alone is home to hundreds of thousands of games, each of which has to contest with the specific technological affordances and constraints of the iPhone – most significantly the lack of any tangible buttons – and the mobile practices of its users. To re-appropriate what Christian McCrea says of Nick Montfort and Ian Bogost's (2009) *Racing the Beam*, the games that are available for smartphones cannot help but be *expressive* of the smartphone (McCrea 2011, 390). Apple's iPhone did not try to accommodate video games, but video games quickly accommodated the iPhone.

Most visible – and profitable – of the games to appear on contemporary smartphone platforms are casual mobile games. Smartphones' incorporation of 'wearable' and touchable screens into the user's corporeal schema (Richardson 2005) and casual game design's focus on a flexibility around the player's everyday life (Juul 2010, 10) has created a powerful synergy between mobile media platforms and casual game design. Games such as Rovio's *Angry Birds* (2009), ZeptoLab's *Cut the Rope* (2010) and King's *Candy Crush Saga* (2012) combine the smartphone's intuitive gestural interface, low barrier of entry via digital distribution channels and persistent connection to online social networks to create a home on the smartphone for approachable and accessible casual games beyond the exclusive 'hardcore' games of console and PC platforms.

However, for as long as there has been smartphones, there has also been a healthy ecology of alternative and independent mobile games that resist easy categorization as 'casual' games. These games typically rely on indie or retro visual aesthetics and offer more traditionally twitchy challenges than casual games have come to be associated with. Yet, as mobile games, they still must fit into the player's everyday life and they must still take advantage of (or be constrained by) the gestural interfaces. While elsewhere I have detailed how writing on casual and mobile games set up casual game design in an antagonistic dichotomy with traditional game design (Keogh 2014), the peculiar cases of 'non-casual mobile games', however, provides a significant link between newer methods of casual and mobile game design and the more traditional and entrenched design of console and PC games. The differences between the two are well-established, but the similarities remain under-appreciated.

It is these similarities this chapter is concerned with: it challenges the ingrained casual/hardcore dichotomy that tends to understand casual games antagonistically against traditional game design concerns (casual instead of hardcore, distracting instead of immersive, easy instead of challenging) to

instead situate mobile and casual game design within a broader spectrum of design concerned with different modes of player attention. This allows a more nuanced understanding of how casual and non-casual game design overlap with and influence the other in a fruitful and reflexive conversation.

This chapter will first critique the notion of 'casual' and the typical casual/hardcore dichotomy, with a particular focus on the question of attention that usually dismisses casual games as distracting in contrast to the 'full immersion' of traditional hardcore games. I instead argue that different games demand different modes of attention from the player, which require different forms of embodiment of the actual and virtual worlds of play. This will transition into a discussion of the smartphone as gaming platform – what it affords and what it restricts – to appreciate how it has become a home for casual games and how non-casual mobile games must still be casual in some ways due to the forms of attention demanded by mobile devices. From here, my analysis turns to look closely at two particular non-casual mobile games: Michael Brough's *868-Hack* (2013) and Action Button's *Ziggurat* (2012). These two critically acclaimed but unarguably niche mobile games fulfil many of Juul's criteria for casual game design (2010, 30–55) but resist easy categorization as casual games through their inaccessible difficulty and visual aesthetics. Close analysis of the aesthetic pleasures and challenges afforded by these games *as mobile games* will allow a more complex, heterogeneous understanding of mobile game design beyond the more commercially visible casual games often taken as the whole of the mobile game ecology. Ultimately, I will demonstrate that 'casual' is not a hermeneutic category sealed off from traditional concerns of game design, but is in an ongoing conversation with game design *en large*, influenced by and influencing video game design more broadly.

Paying attention to casual and mobile games

Video games designed to be played casually have existed for as long as video games have been commercially produced, but it was with the rise in popularity of Nintendo's Wii console in the mid-2000s and the parallel rise in smartphone and social network games (SNGs) that they became a focus of serious study in their own right. In contrast to the hardcore, genre- and challenge-driven games predominately marketed at teenage boys on both PC as well as the Xbox and PlayStation consoles, the casual games of the Wii seemed to welcome a much broader audience with its intuitive motion controls and the friendly visual aesthetics of games such as *Wii Sports* (Nintendo 2006). In his extensive look at the rise of casual games, *A Casual Revolution*, Juul notes that casual games are often positioned 'as a rejection of traditional hardcore

game design, with its gory themes and focus on technological capabilities' (2010, 25). Already, we see casual games defined primarily as what they are not: hardcore games. This positioning continues today in popular games discourse in a way that tends to centralize hardcore games as 'real' games and 'casual' games as mere distractions, played by people who are not 'real' gamers (Taylor 2012, 241).

Through extensive interviews with casual game players, Juul complicates the casual/hardcore dichotomy. Most importantly, he shows that casual game players are no less committed to the games they play than those of hardcore games; rather, they tend to play those games in shorter bursts rather than the long, uninterrupted sessions of hardcore games (2010, 30). Further, the common presumption that casual games must be 'easier' than hardcore games fails to hold up when Juul's surveys show that many casual players *do* want challenging games (2010, 41) and are just as likely to be disinterested in a game that is too easy as players of hardcore games (2010, 39–40).

Juul constructively highlights several key features of casual game design that – despite remaining in large part the opposite of hardcore game design – define casual games positively instead of just contrasted to what hardcore game design *is not*. Casual games tend to sport an inoffensive and 'nice' fiction; they are highly usable through an intuitive (often mimetic) interface such as motion or touch controls; they have a balanced difficulty that does not punish the player too harshly for failure and that increases as the player learns; they offer an excessive amount of audiovisual feedback; and, most importantly, they are interruptible (Juul 2010, 30–55). One simply has to look at any of the most successful casual games, such as *Angry Birds* (Figure 3.1) to see these features in play. The birds and pigs are rendered in vibrant, cartoon colours; the controls of using the touchscreen to stretch back and fire a slingshot are immediately understandable; failure only ever sets the player back to the beginning of the level they started thirty seconds earlier; the game constantly and automatically saves data and can be interrupted at a moment's notice. The overarching principle of these features is that, combined, they work to capture a player's attention quickly but, importantly, just as quickly allow the player to redirect their attention away from the game.

Instead of placing casual and hardcore games at opposite ends of a barometer of quality, then, Juul allows us to constructively re-conceptualize casual games as those that are more flexible with the player's time (2010, 36) – those games that can be more easily incorporated *into* the player's everyday life rather than exist as an activity apart from it. While *World of Warcraft* (Blizzard 2004) might ask players to commit to an entire evening of raiding with their friends or *Final Fantasy VII* (Squaresoft 1997) might insist that you keep playing until you reach the next save point or *Dark Souls* (from

FIGURE 3.1 *Rovio's Angry Birds presents an inoffensive and accessible visual aesthetic indicative of normative casual game design.*

2009) insists you die twenty more times before you learn the basics of combat, a casual game can be picked up and put aside with a moment's notice – or, they can even be played *while doing* other things. Says Juul: 'a casual game is sufficiently flexible to be played with a hardcore time commitment, but a hardcore game is too inflexible to be played with a casual time commitment' (2010, 10).

Thus, we can constructively refocus the word 'casual' in a less derogatory way – since, as Taylor notes, the very term 'casual' often obscures the amount of real labour that players, especially women, commit to casual games (Taylor 2012, 241) – by understanding casual to mean less 'unserious' and more 'flexible'. Truly, this is what casual has always meant. A casual employee at a store may work just as many hours as the full-time staff with just as much effort, but they do so on a more flexible roster that incorporates their everyday life. It is thus less accurate to think of games as existing in a casual/hardcore binary that inevitably puts casual games at the margins than it is to think of games on a spectrum of casual to non-casual forms of attention demanded of the player by the game.

These forms of attention closely relate to how mobile and social media practices have been fruitfully explored in terms of *co-presence* even before the rise of smartphones (Richardson 2005; Hjorth 2007, 370). Mobile media

allows us to be both 'here' and 'there' simultaneously, not only with our friends at the cafe, but also in a discussion with other friends on social media:

[T]he very condition of telepresence – as 'presence at a distance' – speaks of our capacity for ontic dispersion beyond the neat physical limits of the body, and our open-ness to the embodied distraction of televisual and telephonic spaces. (Richardson 2005)

Social and mobile media each afford a hybrid embodiment across virtual and actual worlds where the user maintains a sense of embodied presence in each – neither completely detached nor completely dominant. It is in this dual embodiment that we begin to see why casual and mobile games have such a close relationship, as many of the technological affordances of the smartphone that allow for co-presence are analogous to Juul's features of casual game design that afford flexible modes of attention from the player: devices incorporation into the user's everyday life and practices with intuitive touchscreens worn on and incorporated into the user's everyday corporeal schema (Richardson 2011; Richardson 2012, 144); persistent Internet connection and geolocation software; and an 'app' ecology of digital distribution that allows easy access to affordable software (Banks 2012, 162). The forms of attention demanded by mobile media and those insisted on by casual game design are analogous.

However, even in terms of 'attention', casual and mobile games' flexibility often sees them considered as 'distractions' compared to the supposedly more attentive demands of non-casual games. However, such a binary does not stand up to scrutiny. When I play *Angry Birds*, I am giving it my full attention as I try to find weak points in the flimsy structures. Yet it is true that, at the same time, I am paying attention to the real world around me, ready to tuck my phone away in a moment's notice when my train arrives at the station. For Richardson, the way the smartphone's screen is 'tangibly and contingently dependent on the hand's movement and dexterity' (2011, 424) points to different forms of embodied immersion possible specifically through mobile games. Rather than 'distracting' as opposed to 'immersive', then, casual and mobile games instead demand a precarious balance of *co-attentiveness* where the player is fully aware of the entire actual-virtual assemblage that is their hybrid embodiment across worlds that all games demand: consciously aware of both the virtual world beyond the screen and a corporeal engagement *with* and *around* that screen. As I elaborate elsewhere (Keogh 2014), distraction and immersion are not opposite ends of a spectrum: to be immersed in a game *is to be distracted by* that game. Casual and mobile games with their required flexibility require a hybrid, co-attentiveness from the player.

However, various researchers have shown that mobile media is also often engaged with in far more traditional, private modes in addition to their co-present, public modes. Chan, for instance, draws from various studies to show that in Japan the home has become a 'significant static locale for mobile gaming' (2008, 21). Richardson, meanwhile, in her fruitful discussion of smartphone technology and gaming through a phenomenological framework, makes the observation that the corporeal attachments demanded of mobile gaming through touchscreen and motion-sensing devices 'can, at times, demand a non-casual multi-sensory engagement' (2011, 423) that she suggests is akin to the 'stickiness' of console games previously conceptualized by Chesher (2004). While the forms of attention available to mobile media are intimately related to those demanded of casual games, studies such as these suggest that mobile media affords a broader spectrum of attentions than *just* those most commonly affiliated with everyday, public practices. And, by extension, the games that exist on such devices encompass a broader spectrum than *just* casual games. It's to two such non-casual mobile games that this chapter now turns.

Hackers and users

This tension between non-casual game design and the forms of attention demanded of mobile devices can be seen in the works of game designer Michael Brough. Brough has released various experimental and obscure puzzle and local multiplayer (played by two people on a single touchscreen device) games on the iPhone and iPad, including *Corrypt* (2012), *Zaga-33* (2012) and *Glitch Tank* (2012). While each has been a critical success with established game critics and developers, none have established a broader audience beyond core, independent game devotees. Game designer Jonathan Blow holds Brough's visual style responsible for this niche-ness (Blow 2013). Where casual games present an inoffensive, cartoony aesthetic, Brough's games harness an evocative and dark retro style that is more often described as 'ugly' (Rigney 2013). Instead of immediate accessibility, Bough's games focus on *inaccessibility*: demanding that the player takes the time to understand them.

This is in stark contrast to how Apple envisions the relationship between user and iPhone or iPad. Burgess shows how the iPhone as a platform embraces a transparency of usability over a transparency of hackability (2012, 40):

Whereas for the hackers, transparency meant visibility and openness at all levels of hardware and code so that users might learn and fully master the computer, 'user-friendly' interface design principles redefined transparency

to mean the invisibility of all technological layers [. . .] so that there was nothing standing between the will of the user and the task for which he or she wishes to use the computer. (Burgess 2012, 33)

This usability, reflected in Apple marketing campaigns that tote their products as devices that ‘just work’ (Burgess 2012, 37), runs parallel with the usability demanded of casual games; they should be immediately understandable and ‘transparent’ to the players.

Brough, however, is more concerned with the transparency – and intimacy – of hacking. Ryerson has aptly described Brough’s games as ‘like stepping inside of a machine that has existed for a very long time before you ever entered into it’ (2013). In interviews, Brough discusses his desire for his games to be something people have to learn, as a way of evoking ‘that feeling of being at a low level, feeling close to the way computers work’ (in Rigney 2013, 1). This is perhaps most true of his iOS game *868-Hack* (2013), a dense and difficult cyberpunk-themed game explicitly about hacking into a computer system. (Figure 3.2) On a grid-like board, the player navigates their avatar towards an exit while siphoning skills and resources from surrounding squares and simultaneously

FIGURE 3.2 *Michael Brough’s 868-Hack’s visual aesthetic is not immediately welcoming or comprehensible the way most casual mobile games strive to be.*

predicting and avoiding the advances of various enemies. As a 'rogue-like' game – following in the genre of excessively difficult and punishing games birthed by *Rogue* (Toy and Wichman 1980) and popularized in recent years by games such as *FTL* (Subset 2012), *The Binding of Isaac* (McMillen and Himsl 2011) and *Spelunky* (Yu 2009) – understanding how the game functions and should be engaged with is a long struggle that demands the player's patience and commitment. *868-Hack*'s challenges cannot be memorized and quickly repeated. Rather, it procedurally generates levels that are different in every game from an underlying algorithm. To successfully navigate these unique challenges, the player must rely on what they have learned about the game's systems from past experiences. Rather than an immediate accessibility, *868-Hack* demands that the player learns how to play by playing. Unlike Apple's devices, *868-Hack* does not 'just work'.

868-Hack can hardly be considered a casual game. Yet, there remain clear parallels between the design of *868-Hack* and the concerns of casual games, brought around predominately by *868-Hack*'s existence on a mobile device. While the game's systems and mechanics remain confronting and intimidating to a new player, interfacing with the game via the touchscreen is intuitive and simple: the player simply swipes a finger in the direction they want the avatar to move and tap buttons on the edge of the screen to execute various abilities. Further, the game's turn-based pacing means the game only ever progresses at the player's instigation. Turn-based combat has long existed within the rogue-like genre, and this helps to afford the co-attentiveness demanded of mobile games as the *868-Hack* player is just as likely to be distracted by the real world as the *Angry Birds* player. Meanwhile, the unforgiving harshness of the rogue-like genre means, counterintuitively, a single game can be quite short and thus suits a casual, flexible mode of play.

In a personal correspondence, Brough called attention to the physical dimensions of the iPad as being well-suited for the kinds of games he makes (Brough 2014a) and, ironically, the uniformity of the iOS software setup as partial reasons for his decision to release many of his games on the iPhone and iPad platforms (Brough 2014b). Brough made a conscious design decision to make *868-Hack* for these mobile devices, even as he made design decisions directly opposed to dominant casual and mobile game design. Yet, through its turn-based pacing and the brevity of a single game through the heightened difficulty level, *868-Hack* still requires and allows similar forms of attention as casual mobile games. Like most non-casual mobile games, then, *868-Hack* still maintains some relationship with the concerns of casual game design simply by conforming to the mobile platform.

The end of the universe

While the games of Michael Brough might share design aesthetics with casual games through the affordances and constraints of the smartphone platform, Action Button's *Ziggurat* is a non-casual mobile game for the iPhone in explicit dialog with casual game design – in particular, with *Angry Birds*. Designer Tim Rogers wrote on gaming website *Kotaku* how his initial idea for *Ziggurat* first came to him when he played *Angry Birds* and found himself frustrated with the turn-based pacing:

I wanted a 'driving range'. I wanted stuff to be falling down constantly, and I'm over here at this crazy distance, slinging birds at it. I imagined a game wherein a hero is against a wall at the end of a long tunnel. Enemies are coming at him . . . So you use slingshot controls to fire these for-some-reason-very-slow-moving bullets at these bats. You have to sit there and watch the bullets approach the targets. You have no limit to bullets you can shoot. Depending on your firing angle, you can sacrifice speed for accuracy. Speed knocks the bats back further. You're just – keeping a bunch of bats back (Rogers 2012).

Rogers continues that a year later he saw someone playing one of the later *Angry Birds* on the train, playing the game in a decidedly non-casual way, which I explore elsewhere (Keogh 2014): 'he flung a bird; he let it fly for two seconds; he made a little sound in his nose; he tapped "pause"; he tapped "reset"' (Rogers 2012). That people wanted to play *Angry Birds* in a persistent, non-casual way led Tim Rogers to the decidedly non-casual design of *Ziggurat*. (Figure 3.3)

In *Ziggurat*, the player takes on the role of the last human alive, standing atop a ziggurat as the alien robots that killed everyone else close in to end the human race. Much like *Angry Birds*, *Ziggurat* is about slinging projectiles on arcs. Instead of the bats that Rogers first envisioned, it is an endless army of robots that the player must confront. While *Angry Birds* allows the player to take an indefinite amount of time between each shot, the *Ziggurat* player must be firing constantly to contain the enclosing horde. To fire the gun, the player slides their finger across the bottom of the screen horizontally to determine the elevation of each shot. Holding on the far left-hand side of the screen aims down the left-hand slope. As the player slides their finger to the right, the character raises the rifle higher into the air, turns and aims down the right-hand slope of the ziggurat. Instead of *Angry Birds*'s mimetic 'pulling back' input to control the power behind each shot, *Ziggurat* requires the player to hold their finger on the screen to start charging the shot and it fires once the

FIGURE 3.3 *Action Button's Ziggurat demands the player's full attention through a persistent onslaught of enemies, unlike Angry Birds' turn-based gameplay.*

player releases their finger. This complicates aiming as once the player starts aiming, the gun starts charging and the player must have the precise shot lined up in time to fire on precisely the velocity they intended.

Crucially, the shot is fully charged only for a split second before it depletes to a less powerful stage. If the player wants to fire a fully charged shot, they must aim and fire on a very precise rhythm. Where *Angry Birds* allows the player to just 'play around' with one possible set of parabolas (the trajectory of the birds) to see what happens, *Ziggurat* is exclusively about pinpoint accuracy and paying careful attention to the interactions of a range of rhythms and parabolas at once: the gun's elevation, the shot's velocity, the direction of the enemies' jumps. If a single enemy or shot reaches the top of the ziggurat, the game is instantly over. While even *868-Hack* implements a turn-based structure that affords a simultaneous engagement with the real world while playing, the incessant and persistent approach of *Ziggurat's* alien robots seems to actively reject co-attentiveness, demanding the player's undivided attention. *Ziggurat* does not even offer a pause button, stubbornly refusing the 'interruptibility' often demanded of both casual and mobile games.

Further, while casual games typically have inoffensive and 'nice' audiovisual aesthetics, *Ziggurat* is noticeably more gritty, with its pixelated visuals of reds, blacks and purples. The fictional framing of alien robots closing in to kill the last human alive is also more aligned with the violent shooters of home

consoles than the cartoon characters of most iPhone games. Despite both the genocidal and suicidal tendencies of *Angry Birds*'s protagonist poultry, they never seem less than comical in their endeavours. *Ziggurat*, meanwhile, works to evoke a sense of helplessness and urgency, much like early arcade games such as *Space Invaders* (Taito 1978) and *Missile Command* (Atari 1980). In *Ziggurat*, you will eventually die and humanity will fall; your only solace is how well you do before you fail.

Yet, despite all of this, it is not sufficient to simply call *Ziggurat* a hardcore game and leave it at that. *Ziggurat* is still a mobile game, created specifically with the iPhone in mind and, significantly, in direct conversation with one of the most successful casual mobile game franchises of all time. Much like *868-Hack*, its unforgiving difficulty allows it to be played in brief periods of time – a particularly long game might last five minutes – and the depth of its systems becomes apparent only over many repeated games. Games journalist Andy Corrigan goes so far as to call *Ziggurat* a casual game created for a hardcore audience:

Its intrinsic simplicity allows you to jump in and kill a few minutes for instant gratification, but delaying the inevitable failure that we come to deem as 'success' can only come from the long game, through understanding, practice and skill. The very elements that define a hardcore game. (Corrigan 2012)

Such an analysis depends on and perpetuates a casual/hardcore dichotomy that this article hopes to complicate, yet it also highlights how players conceive of *Ziggurat* as somewhere 'between' casual and non-casual design. While *Ziggurat* might seem like a non-casual game, then, it is one in direct dialogue with an exemplar of casual game design, allowing us to directly compare and contrast the modes of attention demanded of both casual and non-casual mobile games.

Conclusion

In late 2013, Vietnamese developer Dong Nguyen released a smartphone game called *Flappy Bird*. It was aggressively difficult, with games often lasting no more than ten seconds. It had a low-fi visual aesthetic heavily inspired by *Super Mario Bros.* (Nintendo 1985) and was a difficult game to play without giving it your full attention. The player takes on the role of a perpetually falling bird, tapping once to propel the bird forwards and upwards. With this one mechanic, the player has to carefully manoeuvre the bird through a persistent

series of pipes. A single bump and it is game over. Yet, despite its brutality, *Flappy Bird*'s simplicity allowed it to become a blockbuster success while, at the same time, attracting much scorn from 'core' gamers and journalists (Kushner 2014; Schreier 2014). That such a difficult game could be so embraced by casual players and so rejected by core gamers highlights the problems with making clear distinctions between 'casual' and 'hardcore' games based solely on difficulty or aesthetic. Rather, the case of *Flappy Bird*, much like *868-Hack* and *Ziggurat*, demonstrates the overlap and crossover between casual and non-casual game design, showing that neither can be completely distinguished from the other.

Through a close analysis of two particularly well-received yet very much niche non-casual mobile games, this chapter has drawn attention to this intricate relationship between casual and non-casual game design and has attempted to facilitate a better appreciation for the broader ecology of mobile games that exist beyond the most visible blockbuster casual games. Neither *868-Hack* nor *Ziggurat* functions strictly as casual games. *868-Hack*'s inaccessibility demands patience and a willingness to learn, as opposed to an immediately accessible comprehension. *Ziggurat*'s persistence, meanwhile, demands the player's full attention and endurance, offering not even a pause button to break up the action. Meanwhile, each game's unique visual aesthetic and fictional framing conflicts with the typical inoffensive and 'nice' style demanded of casual games.

Yet, despite these deliberate non-casual design decisions, as games designed for mobile platforms, each game still inherits various values of casual game design. 'A casual game is sufficiently flexible to be played with a hardcore time commitment, but a hardcore game is too inflexible to be played with a casual time commitment' (Juul 2010, 10); however, *868-Hack* and *Ziggurat* are both flexible enough to be played with a casual time commitment. An entire game of each *868-Hack* or *Ziggurat* can be played in a matter of minutes. While each presents complex systems or skills to master, the physical interface demanded of each is straightforward and intuitive, arguably still more accessible than any game on a console or PC that demands the player navigates three-dimensional space. Most significantly, then, these non-casual mobile games remain *flexible*, being easily incorporated into the player's everyday life as they can be quickly accessed, played and put away again in a couple of minutes, even if they each take many hours in total to fully appreciate. To consider either of these mobile games as 'simply' a hardcore game without considering its reflexive relationship with casual game design is to fail to fully appreciate it.

868-Hack and *Ziggurat* are but two examples of a broader ecology of mobile games beyond those squarely at the casual end of the spectrum. Other examples include *Ridiculous Fishing* (Vlambeer, Gage and Wohlwend

2013), *Eliss* (Thirion 2009), *Cool Pizza* (Secret Library 2012) and *iJumpman* (Run Hello 2010). By focusing on just two, however, this chapter has hopefully harnessed an appreciation for the intricate ways that casual and non-casual game designs interrelate, contrast and complement each other – especially on mobile devices. Instead of thinking of casual game design as antagonistically opposed to ‘hardcore’ game design, casual and non-casual are best considered as a spectrum of forms of attention, with many games falling somewhere in between.

References

- Banks, J. 2012. ‘The iPhone as an Innovation Platform: Reimagining the Videogame Developer’. In L. Hjorth, J. Burgess and I. Richardson (eds), *Studying Mobile Media: Cultural Technologies, Mobile Communication, and the iPhone*, 155–72. New York: Routledge.
- Blow, J. 2013. ‘If *Corrypt* had more-polished Graphics and Sound, and were a Bit Longer, 100X-1000X as many People would Play it . . .’ [Twitter post]. 19 January. Available online https://twitter.com/Jonathan_Blow/status/292862552919121920.
- Brough, M. 2014a. ‘@BRkeogh not Sure Mostly it’s because I Like Using the ipad, it Feels Like a Good Size & Shape for the Things I Make’ [Twitter post]. 29 March. Available online <https://twitter.com/smestorp/status/450062969733677056>.
- Brough, M. 2014b. ‘@BRKeogh also the “console” Thing of having Fixed Target Hardware and so not having to Worry about Bugs that Affect some Rare Setup is Nice’ [Twitter post]. 29 March. Available online <https://twitter.com/smestorp/status/450063239574204417>.
- Burgess, J. 2012. ‘The iPhone Moment, the Apple Brand, and the Creative Consumer: From “Hackability” and Usability to Cultural Generativity’. In L. Hjorth, J. Burgess and I. Richardson (eds), *Studying Mobile Media: Cultural Technologies, Mobile Communication, and the iPhone*, 133–51. New York: Routledge.
- Chan, D. 2008. ‘Convergence, Connectivity, and the Case of Japanese Mobile Gaming’. *Games and Culture* 3 (1): 13–25.
- Chesher, C. 2004. ‘Neither Gaze nor Glance, but Glaze: Relating to Console Game Screens’. *Scan Journal of Media, Arts, Culture* 1 (1). Available online http://scan.net.au/scan/journal/display.php?journal_id=19.
- Corrigan, A. 2012. ‘Casual Games can be Hardcore Too’. *This Is My Joystick*, 24 September. Available online <http://thisismyjoystick.com/editorial/casual-games-can-be-hardcore-too/>.
- Edge. 2012. ‘An Accidental Empire: How Apple Became the Hottest Property in Portable Videogames’. January, 236: 76–84.
- Hjorth, L. 2007. ‘The Game of Being Mobile: One Media History of Gaming and Mobile Technologies in Asia-Pacific’. *Convergence* 13 (4): 369–81.
- Juul, J. 2010. *A Casual Revolution: Reinventing Video Games and Their Players*. Cambridge: The MIT Press.

- Keogh, B. 2014. 'Paying Attention to *Angry Birds*: Rearticulating Hybrid Worlds and Embodied Play through Casual iPhone Games'. In L. Hjorth and G. Gerard (eds), *The Routledge Companion to Mobile Media*, 267–76. New York: Routledge.
- Kushner, D. 2014. 'The Flight of the Birdman: *Flappy Bird* Creator Dong Nguyen Speaks Out'. *Rolling Stone*, 11 March. Available online <http://www.rollingstone.com/culture/news/the-flight-of-the-birdman-flappy-bird-creator-dong-nguyen-speaks-out-20140311>.
- McCrea, C. 2011. 'We Play in Public: The Nature and Context of Portable Gaming Systems'. *Convergence* 17 (4): 389–403.
- Montfort, N. and I. Bogost. 2009. *Racing the Beam: The Atari Video Computer System*. Cambridge: The MIT Press.
- Richardson, I. 2005. 'Mobile Technosoma: Some Phenomenological Reflections on Itinerant Media Devices'. *Fibreculture* 6. Available online <http://six.fibreculturejournal.org/fcj-032-mobile-technosoma-some-phenomenological-reflections-on-itinerant-media-devices/>.
- Richardson, I. 2011. 'The Hybrid Ontology of Mobile Gaming'. *Convergence* 17 (4): 419–30.
- Richardson, I. 2012. 'Touching the Screen: A Phenomenology of Mobile Gaming and the iPhone'. In L. Hjorth, J. Burgess and I. Richardson (eds), *Studying Mobile Media: Cultural Technologies, Mobile Communication, and the iPhone*, 133–51. New York: Routledge.
- Rigney, R. 2013. 'The Ugly, Corrupted, Brilliant Games of Michael Brough'. *Wired*, 26 February. Available online <http://www.wired.com/2013/02/michael-brough/>.
- Rogers, T. 2012. 'Introducing ZiGGURAT'. *Kotaku*, 2 February. Available online <http://kotaku.com/5887445/introducing-ziggurat/all>.
- Schreier, J. 2014. '*Flappy Bird* is Making \$50,000 a day with *Mario*-like Art'. *Kotaku*, 2 June. Available online <http://kotaku.com/flappy-bird-is-making-50-000-a-day-off-ripped-art-1517498140>.
- Taylor, T. L. 2012. *Raising the Stakes: E-sports and the Professionalization of Computer Gaming*. Cambridge: The MIT Press.