

Notes

Chapter 1

1. The most convincing academic argument on the topic is Juul's *A Casual Revolution* (2009), which focuses on the success of casual games and how they have expanded the audience for computer games.
2. The champion of this idea is Eric Zimmerman, who specified it in a manifesto in late 2013: <http://kotaku.com/manifesto-the-21st-century-will-be-defined-by-games-1275355204> (accessed October 16, 2013). This idea, however, had already been popular, with different phrasings, in game developer venues such as the annual Game Developers Conference. Game designer Clint Hocking provided a useful summary and insightful critique of the ludic century ideal in his blog in late 2011: http://www.clicknothing.com/click_nothing/2011/11/redacted-the-dominant-cultural-form-of-the-21st-century.html (accessed November 22, 2011).
3. Heather Chaplin and Eric Zimmerman presented this idea at the 2008 Games + Learning + Society conference, later to be published as Zimmerman's manifesto (see note 2).
4. This book is written as an update to the tradition of Huizingan play, a canon consisting roughly of Huizinga (1992), Sutton-Smith (1997), DeKoven (2002), Caillois (2001), and Suits (2005). The update will consist of an expansion of the theories used to explain play, as well as a focus on materiality and design: how the objects of play, the playthings, are designed to help us engage with the world through play.

5. Isaacson (2011).
6. Huizinga remains a central figure in the understanding of play, and although the theory of play I am presenting here is markedly post-Huizingan, it is still very much affected by his ideas. *Homo Ludens* was Huizinga's interpretation of a third dominant anthropology of humans. If *Homo sapiens* was the being of reason, and *Homo faber* the being of production, *Homo ludens* would be the being of play. This being would also be responsible for the play element in culture, which in Huizinga's view was at the center of Western culture. Play, mostly understood as ritual, had an imprint in the configuration of history and culture that needed to be defined, and so play needed understanding too. Huizinga's ideas, only moderately influential outside cultural anthropology, are still informing our understanding of play, despite the fact that *Homo Ludens* is a relatively outdated book (for a critical review of the text, see Henricks 2006).
7. To be fair, this idea is also present in Huizinga. However, his insistence on play being separate from real life weakens the creative and expressive capacities of play, as it can be understood only within the bound context of its own performance, and not within the larger context in which people play, or the multiplicity of intentions behind this activity.
8. Caillois (2001) writes about the idea of the corruption of play and its potential dangers in chapter 4 of *Man, Play and Games*. Sutton-Smith (1997) dedicates some critical thoughts to gambling and cruel play.
9. These ideas are explored in Nietzsche's *The Birth of Tragedy* (1872, 1993).
10. As presented in Schechner (1988). For an annotated introduction to the use of the concept of play in performance studies, see Schechner (2006).
11. While Schechner provides interesting examples of dark play, I contribute with one example I expand on later in this book. When playing the game *B.U.T.T.O.N.*, some players might be compelled to exert more physical violence than others. For some, that violence is part of the

play, and in playing, that is manifested as an act of dark play: it is unclear if the tackling responds to an interpretation of how to play the game or a different desire. It is an exploration of the boundaries created by this game. See also Wilson (2011).

12. Understood in the sense of Russian literary theorist Bakhtin (1984, 2008).

13. "The feast was a temporary suspension of the entire official system with all its prohibitions and hierarchic barriers. For a short time life came out of its usual, legalized and consecrated furrows and entered the sphere of utopian freedom" (Bakhtin 1984, 89).

14. "Next to the universality of medieval laughter we must stress another striking peculiarity: its indissoluble and essential relation to freedom.... This freedom of laughter was, of course, relative; its sphere was at times wider and at times narrower, but it was never entirely suspended" (Bakhtin 1984, 89). Where Bakhtin writes about laughter, I write about carnivalesque play, which I claim is similar; in fact, laughter is a manifestation of carnivalesque play.

15. Twitter bots are essentially computer programs designed to generate tweets and post them on that social network. And if you don't know what I am talking about, read this piece by Sarah Brin: <http://nybots.tumblr.com/post/62834461397/who-led-the-horse-to-ebooks> (accessed October 17, 2013).

16. By *postromantic*, I am referring to the focus that particularly game aesthetics pays to the notions of authorship, form, and individual expression.

17. In this sense, this work is close to that of critical designers like Dunne (2006), Sengers and Gaver (2006), Sengers et al. (2005), and Hallnäs and Redström (2001).

18. Not strictly from an etiological perspective such as those presented by Schechner (1988); however, I am interested in play not as a biological manifestation but as a cultural manifestation.

19. "Maybe scholars should declare a moratorium on defining play" (Schechner 1988, 3).

20. Besides this temporal framework, my minimalist understanding of play also wants to stay away from the essentialist approach that many humanistic thinkers take when trying to understand sociocultural phenomena. I am trying to understand play and why it matters, but I am not trying to formally define play. If anything, my definition is indebted to the work in sociology that has seen play within its cultural, social context. This book owes much to Henricks's *Play Reconsidered* (2006), though my approach is both more humanistic and more interested in the objects of play, and they lead eventually to questions on design and materiality. However, it is my intention to provide a nonessentialist take on defining play.

21. The notion of context is a dangerous one. A word commonly used in sociological studies, *context* is often applied to the understanding of everything that surrounds the human action that is relevant for a situation (Goffman 1959; for an overview of the topic, Ritzer 2000 is a very good textbook). My understanding of context, though, is willingly different. I am inspired by the work of Bruno Latour (1992), and other actor-network theorists (Latour 2005; Law and Hassard 1999), but I am also closer to the postphenomenological tradition of Verbeek (2006), which tries to see technologies in context as part of our way of experiencing and constructing the world. In this theory of play, context encompasses the social, cultural, technological, and physical situatedness of play and how objects are an integral part of what play is. In this sense, then, I am closer to an understanding of context that also introduced some elements of classic ubiquitous computing literature, particularly the work of Dourish (2001, 2004). More specifically, I think that my understanding of context is close to Dourish's understanding of "practice": "By turning our attention from 'context' (as a set of descriptive features of settings) to 'practice' (forms of engagement with those settings), we assigned a central role to the meanings that people find in the world and the meanings of their actions there in terms of the consequences and interpretations of those actions for themselves and for others" (2004, 27–28). I stick, however, to the concept of context because of its colloquial clarity.

22. In texts on soccer (J. Wilson 2008; Goldblatt 2006), there is often a discussion of the source of great football: Does it come from the street-

wise kids who learn to dribble while playing in open public spaces with no age or skill segregation, or is it something nurtured in scientific training in academies? The Argentinian fascination for *potrero* soccer (played by slum kids who make it to the top and, possibly, a consequence of Diego Armando Maradona's sociocultural impact, since *El Diego* is arguably the best player of all time, and is himself of extremely humble origins) is somewhat opposite to the classic Dutch focus on training at an early age. These approaches yield different play styles, that is, different individual and collective interpretations of playing the game of soccer.

23. Again, this idea is close to Dourish's understanding of context: "As competent social actors in particular domains, we can find the world and the settings we encounter as meaningful. This unification of action and meaning is also central to the question of context, since context is essentially about the ways in which actions can be rendered as meaningful—how a particular action, for example, becomes meaningful for others by dint of where it was performed, when, or with whom" (2004, 24).

24. This is, of course, an interpretation of the classic design research concepts of affordances and constraints (Norman 2002), though I'd claim that objects designed for play, or *playthings*, answer better to the notion of designed signifiers that Norman introduced in *Living with Complexity* (2010).

25. In the next chapter I write about how playfulness is an attitude that allows different interpretations of nonplay contexts. A very simple example is the Apple computer. Apple's focus on making computing machines feel playful, filling them with animations and quirks, suggests a different attitude from the user than toward a conventional gray-box computer. This was one of the core design drives of Steve Jobs, and a good example of how a playful attitude can be invoked in contexts that do not necessarily involve, or lead to, play.

26. Since I understand play as a form of expression akin to language (as does Sutton-Smith, 1997, 219: "Play is like a language: a system of communication and expression, not in itself either good or bad"), I take that as a term of comparison. Languages are not designed, or at least not in the same way play is designed for. By *designed*, here, I am referring to

the capacity of humans for artificially creating playthings that aid the activity of play. It is an understanding of design as a science of the artificial (Simon 1996, but specially Cross 2007), as the collection of knowledge, skills, and insights that leads to the creation of objects that contribute to the experience of being in the world (Verbeek, 2006).

27. Pye (1978) has an idea of the aesthetics of design that is deeply influenced by the importance of form and function in the creation of the objects. It is still a surprisingly popular approach, even though usability gurus like Norman (2004) have distanced themselves from this modernist idea.

28. This is one of the foci of the initial chapter of *Homo Ludens*, as well as the usual topic in many game studies books (Salen and Zimmerman 2004; Juul 2005). See also Henricks (2006, 209–212) and the formalist works of Avedon (1971). Also, the study of rules cannot avoid the importance of Wittgenstein (1961, 1991).

29. Readers will recognize here the work of Goffman (1961).

30. This attitude toward play has been mentioned by Huizinga, Caillois, and Sutton-Smith, but it is Suits (2005) who named it “the lusory attitude.” DeKoven (2002) bases much of his work on understanding this attitude and how it is malleable, changing with the context and purpose of the playful activity.

31. Unlike what Huizinga (1992) thought: “The rules of a game are absolutely binding and allow no doubt.... As soon as the rules are transgressed the whole play-world collapses” (11). Unlike Huizinga, I’d claim that in many cases when the rules are transgressed, new play worlds emerge.

32. Examples abound: house rules, self-imposed challenges (<http://drgamelove.blogspot.com/2009/12/permanent-death-complete-saga.html>), and even sports tactics: they are all interpretations of rules in order to facilitate play.

33. Again, Huizinga (1992): “The player who trespasses against the rules or ignores them is a ‘spoil-sport.’ ... He must be cast out, for he threatens the existence of the play-community” (11).

34. All the works of the New Games movement, the late 1960s movement that wanted to encourage more playful, noncompetitive games, are within this interpretive frame, particularly those of DeKoven, for whom playing is more important than playing by the rules.

35. This idea is adapted from the original concept of orderly and disorderly play that Henricks (2009) proposed.

36. As Nietzsche argued for in *The Birth of Tragedy* (1993). I am aware that this is a work of the young Nietzsche, and very much a text written as a particular response to a cultural and artistic climate. However, the dichotomy between the Apollonian and the Dionysiac is, as I will argue, relevant for understanding play, even though it implies a certain freedom of interpretation of the original concepts.

37. Nietzsche (1993) writes: “And let us now imagine how the ecstatic sound of the Dionysiac revels echoed ever more enticingly around this world, built on illusion and *moderation*, and artificially restrained— how their clamor voiced all the *excess* of nature in delight, suffering, and knowledge, and even in the most piercing cry: imagine what the psalm-odizing apolline artist, with his phantom harpnotes, could have meant compared to this daemonic folk song” (26). Incidentally, the rise of physical indie games that are inspired by folk games like *B.U.T.T.O.N* (folk games are understood to be popular games that are played in groups and transmitted through communities of play), and the presence of folk games in many indie events (such as IndieCade, the yearly festival of independent games), could be interpreted as a Dionysiac reaction to the Apollonian presence of computer games (formal systems running on computing machines) that dominated the late twentieth century.

38. “Play is characteristically buoyant and disrespectful, and players are indulgent in the broadest sense of that term. Committed to living in the present, players insert their interests and enthusiasms wherever possible. Within the boundaries of the event itself, action typically dances and darts. We demolish our carefully constructed castle of blocks and are fascinated by the clatter of its collapse” (Henricks 2006, 205–206).

39. Huizinga (1992) mentions the importance of play as a creator of order, an Apollonian footprint that can still be felt today in the way we

think about play. See, for example, Koster's *A Theory of Fun for Game Design* (2005) and its hypothesis that playing is akin to learning since it consists of pattern recognition behaviors. We learn, and play, by recognizing order—a valid way of understanding play, but only one possible way of acknowledging the ways in which play matters.

40. There is a certain pleasure in rational, goal-oriented play. While instrumental play can be a highly positive type of play (Taylor 2006a), it can also lead to worse instances of instrumental play (Sicart 2012), in which the very purpose of play is lost in external rewards and mindless interactions.

41. "Play can be deferred or suspended at any time" (Huizinga, 1992, 8).

42. Bakhtin (1984, 2008). Incidentally, the presence of Bakhtin can also be felt in some design research work. See, for example, Wright, Wallace, and McCarthy (2008).

43. This is not a totally new idea in play studies: "Festive events are typically an alternation between patterns of aggressive, creative activity and its opposite—a more receptive and adaptive mode" (Henricks 2006, 92). However, the application of Bakhtin's carnival and its important ties to ideas of modernity and freedom separates my work from other theories of play.

44. See also Schmitz (1988): "Like art and religion, play is not far from the feast, for art celebrates beauty and religion celebrates glory, but play celebrates the emergence of a finite world that lies outside and beyond the world of nature while at the same time resting upon it" (33). Similarly, see Fink (1988) or Esposito (1988).

45. "Laughter at the feast of fools was not, of course, an abstract and purely negative mockery of the Christian ritual and the Church's hierarchy. The negative derisive element was deeply immersed in the triumphant theme of bodily regeneration and renewal. It was 'man's second nature' that was laughing, the lower bodily stratum which could not express itself in official cult and ideology" (Bakhtin 1984, 75). And, "the feast was a temporary suspension of the entire official system with all its prohibitions and hierarchic barriers. For a short time life came out of its

usual, legalized and consecrated furrows and entered the sphere of utopian freedom" (89).

46. "The Renaissance conception of laughter can be roughly described as follows: Laughter has a deep philosophical meaning, it is one of the essential forms of the truth concerning the world as a whole, concerning history and man; it is a peculiar point of view relative to the world; the world is seen anew, no less (and perhaps more) profoundly than when seen from the serious standpoint. Therefore, laughter is just as admissible in great literature, posing universal problems, as seriousness. Certain essential aspects of the world are accessible only to laughter" (Bakhtin 1984, 66).

47. "In other words, medieval laughter became at the Renaissance stage of its development the expression of a new free and critical *historical* consciousness" (Bakhtin 1984, 73).

48. "Seriousness was therefore elementally distrusted, while trust was placed in festive laughter" (Bakhtin 1984, 95).

49. "Laughter is essentially not an external but an interior form of truth; it cannot be transformed into seriousness without destroying and distorting the very contents of the truth which it unveils. Laughter liberates not only from external censorship but first of all from the great interior censor; it liberates from the fear that developed in man during thousands of years: fear of the sacred, of prohibitions, of the past, of power. It unveils the material bodily principle in its true meaning" (Bakhtin 1984, 94).

50. "The images of games were seen as a condensed formula of life and of the historic process: fortune, misfortune, gain and loss, crowning and uncrowning.... At the same time games drew the players out of the bounds of everyday life, liberated them from usual laws and regulations, and replaced established conventions by other lighter conventionalities.... The peculiar interpretation of games in Rabelais' time must be carefully considered. Games were not as yet thought of as a part of ordinary life and even less of its frivolous aspect. Instead they had preserved their philosophical meaning" (Bakhtin 1984, 235–236).

51. “Play is usually thought to be a time when people ‘take over’ their own affairs.... In play, so it is argued, people can have the world to their liking.... Play gives people a chance to shape the world—and to do so according to their own terms and timing” (Henricks 2006, 7–8).

52. Also known as Ninja Slap: <http://www.urbandictionary.com/define.php?term=Ninja%20Slap> (accessed December 1, 2011). See also <http://ultimateninjacombat.com/> (accessed December 1, 2011).

53. <http://gutefabrik.com/joust.html> (accessed December 1, 2011).

54. Incidentally, appropriative play also happens in the case of spectatorship. Sports are a case in which the appropriative nature of play can be used to understand the ways in which we contemplate play. To see a game being played, a sport or something like *Ninja* or *Joust*, is also to participate, to play—a minor, perhaps secondary way, but also a way of performing the basic appropriative move that defines play as an activity.

55. A Marxist would probably be proud of this interpretation of play, following Henricks’s (2006) exegesis of Marx: “Indeed, the objects themselves are much less important than the experience of human relationship that derives from the activity” (37).

56. <http://camover.noblogs.org>. See also <http://www.disinfo.com/2013/01/camover-a-game-to-destroy-cctv-cameras/> and <http://www.guardian.co.uk/theguardian/shortcuts/2013/jan/25/game-destroy-cctv-cameras-berlin> (accessed February 1, 2013).

57. In Schechner’s own words, “Dark play subverts order, dissolves frames, breaks its own rules, so that the playing itself is in danger of being destroyed, as in spying, con-games, undercover actions, and double agency. Unlike the inversions of carnivals, ritual clowns, and so on (whose agendas are public), dark play’s inversions are not declared or resolved; its end is not integration but disruption, deceit, excess, and gratification” (1988, 13).

58. “Play creates its own (permeable) boundaries and realms: multiple realities that are slippery, porous, and full of creative lying and deceit; that play is dangerous and, because it is, players need to feel secure in

order to begin playing; that the perils of playing are often masked or disguised by saying that play is fun, voluntary, a leisure activity, or ephemeral—when in fact the fun of playing, when there is fun, is in playing with fire, going in over one's head, inverting accepted procedures and hierarchies; that play is performative involving players, directors, spectators, and commentators" (Schechner, 1988, 5).

59. And not only adult play, but also children's play, as Sutton-Smith has already noted (1997, 111–123).

60. Schüll's (2012) work on the design of gambling machines is particularly fascinating: "From virtual reel mapping and disproportionate reels to video slots' asymmetric reels; from the illusory player control conveyed by stop buttons and joysticks to the illusory offs conveyed by teaser strips: These methods, supported by a whole corporate, legal, and regulatory apparatus, gave machine designers greater control over the odds and presentation of chance while fostering enchanting 'illusions of control', distorted perception of odds, and near-miss effects among gamblers. In what amounts to a kind of enchantment by design, finely tuned, chance-mediating technologies function as 'really new gods', captivating their audience" (95).

61. See also Henricks's (2006, particularly pages 169–170) reading of the works of Goffman.

62. "What does seem distinctive about play is the degree to which the characteristic rationale for the activity ... is contained or restricted within the activity itself. To play is to acknowledge that this restricted sphere is a legitimate place to operate, that people can passionately pursue objectives here without interference or condemnation from other spheres. There will be personal or social consequences for what occurs.... However, these consequences are for the most part kept 'in the room'" (Henricks 2006, 191).

63. See Suits (1988): "*All instances of play are instances of autotelic activity*" (19).

64. This is of course a jab against the idea of magic circle, which is a common (mis)interpretation of Huizinga's proposal of autotelic play.

See Consalvo (2009). Goffman's ideas can also be used to destabilize the idea of magic circle: "Games in fact have boundaries that are semi-permeable. Certain issues inevitably come through" (Henricks 2006, 151).

65. <http://mightyvision.blogspot.dk/2012/08/vesper5.html>.

66. Again, the influence of actor-network theory should be clear here. I understand the activity of play as taking place in an ecology of things, people, and processes, all of which are related in multiple and varying ways through time. The purpose of a theory of play should be to identify the workings of these networks and propose a vocabulary that allows for approaching instances of the activity in meaningful, critical ways.

67. "To play a game is to reclaim suddenly experiences he has had before or even, more profoundly, to retrace the steps of anyone who has ever played the game" (Henricks 2006, 13).

68. "To play is to know that there is a wider world—with all its obligations and complexities— just beyond the gates of the playground. Furthermore, this wider world is needed to give play its sense of urgency and meaning. From those external settings, people import the frequently contradictory values and challenges of their times as well as their own more general issues about personal functioning" (Henricks 2006, 219). Also, in the way I understand the ecology of play, postphenomenological thinking has a lot of weight: through playthings, we experience play, and they have a role in shaping the activity in the ways they mediate it, but also in the ways they open themselves to being interpreted, questioned, appropriated.

69. "The realm of play, if participated in openly, offers obvious opportunities to explore alternative modes of awareness, to develop insights into and knowledge of new modes of being, and to explore radically different possibilities perhaps not readily available elsewhere" (Meier 1988, 194).

70. The careful reader will have probably noticed how I've eluded the classic notion of play as being "voluntary." The more I think about play, the less I see the notion of voluntary as being an important ontological

mark of it. It is true that we often choose to play, but the initial choice may be followed by playing without the intention of playing, just for social pressure. Play is an activity we often engage with voluntarily, but voluntariness does not define the activity: play can happen, and it often does, without being a choice on the part of the players. It is, once again, a remnant of Huizinga's idealized vision of play that often leads us to think about play as *obligatory* voluntary.

71. "As soon as a man apprehends himself as free and wishes to use his freedom, a freedom, by the way, which could just as well be his anguish, then his activity is play" (Sartre 1988, 169).

72. "To play is to take an explanatory attitude toward being at all times" (Fink 1988, 105).

73. Sartre (1988, 170).

Chapter 2

1. The idea of software appropriating the hardware, and the potential political, legal, and ethical implications, are explained by Lessig (2000), though more pertinent analysis of the relations between software and hardware can be found in Bogost and Montfort (2009) or Wardrip-Fruin (2009). However, the most interesting insights on the relation between software and hardware are often found in science and technology studies (see Latour 1992, 2005). See also Kittler (2010).

2. Although this is not the place to discuss these matters, an interesting thread that needs to be explored when thinking about the relations between play and the digital domain is that of the role of gatekeepers in the shaping of playful technologies. For all the potentialities that an iPhone presents, it is ultimately the corporation that produced it, Apple, that allows software to run on it. The way this institutional presence affects the inherent freedom of play should be a subject of interest for researchers and creators of digital play.

3. Sports cars are often marketed as this kind of emotional playful devices, like the Mazda Zoom Zoom campaign (<http://zoom-zoom>

.mazda.com/, accessed December 9, 2011); thanks to Mark J. Nelson for this observation. Similarly, the use of colors in household appliances (see, e.g., the Danish brand Bodum: <http://www.bodum.com/dk/da/shop/prodlist/30/>, accessed December 9, 2011) elevates them from dull instruments for food production to part of the sensory experience of cooking. Marketing theorists have written extensively and appropriately about “playful consumption” and how it can be leveraged in the marketplace (see Holbrook and Hirschman 1982; Holbrook et al. 1984; Grayson 1999; Molesworth and Denegri-Knot 2008).

4. See Blijlevens, Creusen, and Schoormans (2009) for an account on marketing, design, and emotions.

5. The rise of gamification as a concept in 2010 is testimony to this idea—that through play and its values, businesses and services can better engage consumers. Gamification in its commercial phrasing was widely criticized, yet there is still some hope in thinking about playfulness outside the domain of formalized play. See Deterding et al. (2011a, 2011b) for a complete, thorough, and hopeful critique of the gamification.

6. Sports car commercials often present the product in a playful way. Similarly, worldwide brands such as Apple (“Think Different”), HP (“The Computer Is Personal, Again”), and Nike (“Just do it,” and particularly its football commercials of the late 1990s with Eric Cantona as a star: <http://www.youtube.com/watch?v=egNMC6YfpeE>; <http://www.youtube.com/watch?v=vdhvp-iYR3s>; accessed December 9, 2011) use the rhetoric of play to engage their potential customers by appealing to a different set of values from those often applied to their commercial domains (computing, sports).

7. A typical example is the publicity for caffeinated energy drinks, which dress themselves as sporting radical lifestyles even though the drinks are an important part of modern performance enhancers in the workplace.

8. This is resonant of the Frankfurt school approach to modernity. See Adorno and Horkheimer (2010).

9. This definition of playfulness is inspired by Lieberman's work (1977), though my approach is less sociological, and probably less influenced by Goffman and other sociological theorists and more imbued with the rhetorics of playful design and performance studies.

10. This reference is close to Debord's situationist international and their interest in political playfulness. Wark's (2011) excellent summary of the movement is a good introduction to the topic, though some readers may be familiar with Debord's idea of *détournement* (Debord and Wolman 2009).

11. The attraction and pleasures of labor are already well observed by Marx in both its economic and cultural importance. Henricks's (2006) detailed reading of Marx through the lens of play contributes to understanding the instrumental pleasures of formalized work and how those pleasures are akin to the result of play. Of course, Adorno's (2004) resistance to these pleasures and his idea of how aesthetics can free us can be relevant for understanding these pleasures.

12. See Henricks (2006): "Playful expression tends to be organized as a series of pleasant individual escapades or interludes, officially permitted departures from public routine. In this way, even the 'escape routes' for public expression have been anticipated and prepared by formal organizations" (106).

13. Besides the work on marketing and playfulness and Lieberman's book (1977), the notion of playfulness is also present in design research (Gaver 2009; Nam and Kim 2011), critical theory (Benjamin 1999d; Adorno 2004) and performance studies (Schechner 2006). The idea of play as an activity is independent of the ideas proposed by activity theory, though some inspiration was drawn from Kaptelinin and Nardi (2006), particularly in the importance of the sociocultural and technical contexts in the practice of both play and playfulness.

14. The idea of frames refers to Goffman (1959), even though, as Henricks (2006) points out, "[Goffman's playfulness] refers primarily to various forms of imaginative role play that sometimes interrupt the flow of social interaction" (164), rather than to a different activity or attitude than that of play.

15. By “resisting” here I am referring to the fact that even though some attitudes are often guided toward objects or contexts, these worldly domains may ignore our attitudes. Verbeek (2006) gives the example of speed bumps and speed radars, and how they incite violent responses from drivers. The machines, the things, resist the attitude of the drivers, who cannot impose their will on those machines. Playful designs are a negotiation, a dance of this resistance, oscillating between acceptance of playfulness and rejection of actions that don’t lead to the desired outcomes (see Sengers et al. 2005 for a reflection on this type of design approach from a human–computer interaction perspective and Gaver et al. 2009 for a critical reflection on the success of these approaches).
16. This idea is present in some of the philosophy of sports dedicated to the aesthetic ideal; see Morgan and Meier (1988).
17. See <http://online.wsj.com/news/articles/SB10001424127887323375204578269991660836834> (accessed October 17, 2013).
18. I designed a game around this very premise: <http://deterbold.com/catastrophes/dead-drops/>.
19. A video of the famous penalty can be seen here: <http://www.youtube.com/watch?v=Bd1Hr96IenI> (accessed December 9, 2011).
20. See, for instance, Brown and Duguid (1994), Newton (2004), Taylor (2006a), and Turkle (2007). Despite their different methodological traditions, all of these texts share a certain critical perspective on the relations between technology and humans. Outside of design research or science and technology studies, the work of postphenomenologists provides equally interesting insights on the relation between technologies and practices.
21. <http://www.tinkerkit.com/fake-computer-real-violence> (accessed February 4, 2013).
22. <http://accidentalnewsexplorer.com/> (accessed December 10, 2011).
23. There is dark playfulness like there is dark play, and it is not my intention to be normative about it. In fact, dark playfulness is likely to be an interesting approach to understanding politics through technolo-

gies and actions, as in the playful use of billboards by the Billboard Liberation Front (<http://www.billboardliberation.com/>, accessed December 10, 2011) or many of Banksy's works, which are much more context dependent than what photographic records may show (his work in the Gaza strip is an example: <http://arts.guardian.co.uk/pictures/0,,1543331,00.html>; accessed December 10, 2011).

24. <http://www.stfj.net/art/2009/best%20day%20ever/> (accessed December 10, 2011).

25. There are resonances between this idea and Goffman's theories: "Goffman posits a continuum between play and games. Play is typically a temporary transformation of some practical activity. An ordinary object suddenly becomes a 'play-thing' and is abandoned just as quickly" (Henricks 2006, 165). I am not arguing here for a continuity between play and games, but for understanding games as props for play (or, in a weakest sense, games as the form of play). Hence, Goffman's insights are only marginally useful.

26. <http://www.doodlebuzz.com/> (accessed December 10, 2011).

27. I am indebted to Sebastian Möring for this concept.

28. Incidentally, they can also be contexts modified for play, such as spaces taken over by play. For instance, the space around foosball tables at IT University is often transformed during leisure hours into improvised stadiums for hard competition. The context of the public space of a university is modified to accommodate a play activity.

29. Compare, for example, the initial release of Apple's Keynote presentation software with the version of Microsoft's PowerPoint available at that time: Apple's focus on animations, images, and videos, as well as the care for design and typography, made Keynote a much more playful presentation software.

30. <http://www.liveplasma.com/>.

31. <http://www.twittearth.com/>.

32. <http://julianoliver.com/output/packet-garden>.

33. <http://newstweek.com/>.
34. <http://www.wikihow.com/Make-Moss-Graffiti>.
35. I am here referring to classic works such as Dreyfuss (2003) and Pye (1978). Norman's *The Design of Everyday Things* (2002) is a usability take on functionalist thinking and therefore also part of the tradition I am referring to.
36. I am not blind to the commercial angle of this reflection: lack of personality eases the turnaround of new household projects.
37. "People appropriate and reinterpret systems to produce their own uses and meanings, and these are frequently incompatible with design expectations and inconsistent within and across groups" (Sengers and Gaver 2006, 3).
38. That is, the system is not guaranteeing functionality: "Systems that are open to interpretation don't need to be tailored to fit every possible niche audience; instead, the same system may support many ways of experiencing and acting in the world" (Sengers and Gaver 2006, 3).
39. "In our culture, technology often carries connotations of precision, correctness, and authority which can make users feel that the system's apparent interpretation (e.g., the data it collects and presents) must be more correct than users' own understandings" (Sengers and Gaver 2006, 6).
40. This is the idea behind Dunne's (2006) user-unfriendliness concept.
41. These are better explained by Gaver et al. (2004), who write that playful technologies are meant to "promote curiosity," "de-emphasize the pursuit of external goals," "maintain openness and ambiguity," "support social engagement in social activities," and "allow the ludic to be interleaved with everyday utilitarian activities."
42. While I am aware that this may sound like a harsh criticism, there is an important issue at stake: the idea of playful design is important, and its proponents argue for its current success in the world of design. However, there is a certain disconnect between the ideas, the implementations, and the actual presence of these radically playful technologies in

our everyday technological use. For playful design to be as successful as Gaver (2009) claims, it should be present in many more technologies than it is now. It's true that we're witnessing a shift toward playfulness in technology, but the presence and role of institutional gatekeepers prevent the focus on ambiguity to prevail.

43. Dunne's works, as revolutionary and interesting as they are, still take place and space in the art gallery. Interestingly, the method of cultural probes, developed between Gaver and Dunne, is actually quite popular in playful design companies such as IDEO.

44. Many of the interesting answers are collected in the blog "Shit Siri Says" (<http://shitsirisays.com/>, accessed December 12, 2011). More interesting, and politically relevant, is how a glitch in Siri prevented it from giving directions to abortion clinics (http://www.cbsnews.com/8301-501465_162-57334773-501465/siris-abortion-answers-are-a-glitch-says-apple/, accessed December 12, 2011). Winner (1986), Latour (1992), and Verbeek (2006) provide interesting angles to explain this embedded politics in design.

45. Again, there is an obvious commercial side to it: when disposing of an Apple product equipped with Siri, we cannot but think that we're actually *disposing of Siri*. The personal attachment to this playful companion can be an extraordinary market tool that might prevent users from leaving the platform on emotional grounds.

Chapter 3

1. Except Sutton-Smith, who dedicated a volume to toys (Sutton-Smith 1986), all other major play theorists, from Huizinga to DeKoven, focused on games as the form of play, paying little to no attention to toys. Ironically, critical theory (Benjamin 1999a, b, c) and literary theory (Stewart 1993) have given due importance to the cultural role of toys in the context of play.

2. In the three texts from which this chapter draws inspiration (Sutton-Smith 1986; Benjamin 1999a; Stewart 1993), toys are defined only in oblique ways. It seems that, much like play, there is something obvious