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School Will Never End: On Infantilization in Digital Environments – Amplifying Empowerment or Propagating Stupidity?

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Analysing a recent trend in interface design, this chapter examines the question of software and the interface in relation to the aesthetic of the postdigital. To do this, it first looks at contemporary trends in online design, such as ‘flat design’, created to address adults while looking as if it should be for children. After having described the phenomenon of infantilization in digital environments, the second part of the chapter looks into forces that produce it. Why does it occur especially in a technological environment, and what is the specificity of its occurrence? Considering historical influences on interface design to answer these questions – computer scientists such as Alan Kay or Seymour Papert were informed by theories of Jean Piaget – we find an ambiguous figure at work: there is a fine dividing line within infantilization, between the adaptation of learning to ‘children of all ages’ to emancipate users and manipulating them, engendering stupidity as the desirable state they should be in.

On Wednesday 5 May 2010, the search engine Google changed its logo for the first time in ten years and 11 months (Googleblog 2010). With hindsight, here for the first time the rise of a childlike aesthetic in the style of ‘flat design’ became visible. The logo was now less skeuomorphic and more colourful. Its three-dimensional letters in red, yellow and blue, plus the green ‘l’ based on the font Catull, lost their drop shadows. ‘The new logo is lighter, brighter and simpler. We took the very best qualities of our design – personality and playfulness – and distilled them’, explained Google’s senior user experience designer (Wiley 2010) on the search engine’s blog. Experts agreed. Already before the change, the graphic designer Peter Saville had described Google’s logo as infantile: ‘Everything about it is childlike: the

colors [sic], the typeface, even the name' (Rawsthorn 2010). The redesign had intensified this. Chris Moran, at that time *The Guardian's* search engine editorial optimizer, described the new look and feel as a turn towards 'My First Search Engine' (Moran 2010). Online, the wave of infantilization had begun, even though it would take a while before it became recognizable.

Of course, using playfulness was nothing new in the digital realm. Ever since personal computers had become mainstream, designers had tried to give them an air of being friendly and fun. Apple's appeal to non-technical people was intentionally fostered by childish playfulness. Starting up the computer, users were greeted by a 'Happy Mac', a man-machine face designed by Susan Kare. With visually more refined operating systems, most of her benign Apple icons – the 'dogcow' (indicating the setup of a page), the trashcan or the scissors (for the 'cut command') – vanished. The last one to be replaced was the 'Happy Mac'. There was a short outcry (Markoff 2002), but Apple felt its days were gone, as Microsoft had already taken over the idea of animation. Five years earlier, the rival had introduced animated assistants of different forms for its Office suite: Windows had 'Clippy', named after a paper clip, and Office for Apple had a Macintosh on two little feet inspired by the comic 'Banana Jr'. They were meant to interface Office help content, but users experienced the presence of the animated things popping up uninvited, offering irritatingly pointless statements such as: 'It looks as if you're writing a letter?' While trying to concentrate on his essay, Matthew Fuller described the Windows Apple assistant as 'rocking on its heels, whistling, getting rubik, turning into a filing cabinet' (Fuller 2003, 145). Finally, Microsoft removed the assistants in 2007 (Inside Office Online blog 2007).

The 'Alice in Wonderland' era of animated things and figures on digital interfaces seemed over. After the screens had been technically refined, computers did not need to invoke imaginative visual magic any more. Voluptuous 3D buttons replaced the filigreed black and white icons. Also, the usage of computers had become an everyday reality, a fact that materialized with the rise of a new device, the tablet computer iPad, launched on 3 April 2010. Needing to hide that it was a toy for grown-ups, its look and feel were seriously stuffy, as its design was strongly influenced by the taste of Steve Jobs. As the former CEO of the animated film studio Pixar, he had a passion for reality imitating 3D graphics. With the iPad, digital interfaces had become serious. Seemingly, the digital world had grown up.

However, this impression was wrong. By 2014, the online world presented itself as more childish than ever before. Animated animals could be found all over the World Wide Web, as if one were in a fairy tale. The fox of the web browser Firefox might simply have been a survivor of old times as much as Tux, the penguin of the Linux operating system. But next to him now chirped the blue bird of the microblogging service Twitter. The head of another fox pricked up its pointed ears on the data journalism venture FiveThirtyEight, created by statistical analyst Nate Silver. A black Octocat

had landed on the 404 pages of Github, the web-based hosting service for software development projects. A flying beaver sat enthroned on the online travel page of start-up company Hipmunk. A bare-bellied chimpanzee with a postman's hat helped creating professional email for MailChimp. A big-eyed brown owl had become part of the logo of Hootsuite, a social media management dashboard. A little white alien with antenna accompanied Reddit, the buzzing social networking service for digital native online entertainment.

But let us pause for a moment, and ask ourselves: Is this assemblage of animals associated with online brands really unusual enough to support a theory of infantilization? After all, in sports mascots had always accompanied teams. However, more evidence can be found. That the world was made suitable for children could also be seen with 'Google Doodles', coating the events and persons shaping human history and culture with imaginative cuteness. For years, Google had sporadically changed its prominent search website logo into those 'Doodles' in order to mark an anniversary or event. On those special occasions, one could find a sketch that playfully intertwined the topic of an event with the logo: the anniversary of Martin Luther King's speech, the birthday of French director Francois Truffaut or English mathematician Ada Lovelace. Now the playfulness intensified: in 2010, Google published 35 Google Doodles, more than in any previous year. In 2011 and 2012, the number went up to 76 and 83, respectively, and with them historic events turned into fabulous stories. Considering that Google is now an essential part of our public sphere – the Court of Justice of the European Union (2014) indicated this by its ruling that natural persons have the right to be forgotten and links to personal data must be erased in this public space – Google Doodles are the monuments we find on it. As we pass by those monuments when searching, they commemorate important moments that shaped our human fate. In contrast to the historic monuments cast in stone and erected on our public squares, which foster a certain symbolism and spread an air of pathos, the online Doodle monuments are not pathetic. Instead, they turn achievements into playful stories.

Finally, evidence of infantilization can be seen best where it goes wrong, much like Heidegger anticipating the being of gears from looking at those gears broken; for example, when the child-orientated storytelling is adapted to explain the British Legion on the website 'poppy.spend.britishlegion.org.uk' (Royal British Legion 2014). The campaigning organisation, which provides help and welfare to current and former members of the British Armed Forces, used it to break down the usage of its donations from its fundraising each year before Remembrance Sunday, for which it uses trademarked artificial red poppies. Animating five exemplary causes, which unfold in the style of flat design, we see a bright, turquoise-coloured website with a poppy in a red cup. When scrolling, two coins are added to the cup, and the sentence: 'Follow the poppy to see where your money goes...' appears. From there, several colourfully sketched scenes unfold, such

as 'Helping the injured recover: Cinema at Hadley Court', 'Helping military families' or 'Helping veterans stay independent'. This last scene shows a happy, grey-haired lady in a pink dress in her dark green living room next to a non-functioning TV on the left. Behind her one sees two pictures: a large red poppy and a black-and-white one of a soldier; also on the wall are five colourful medals. On the right side of the house, a driver arrives in a grey van. As one scrolls further, an explanation appears on the ground below the house: 'Our handy vans travel around doing odd jobs and minor repairs to help veterans and their families stay in their own homes'; also a small mouse moves from left to right. In the scene, you can switch the light off and on; you can also click the telly to 'repair' it, and, instead of the grey interference, a groundhog appears to look curiously out of the telly at the visitor.

Although it is playfully styled, like a children's animation, the target group of the website is not children. The website explains to adults, the ones giving the money, the usage of donations. However, the Royal British Legion decided to address adults as if they were kids. In a webpage such as this, infantilization becomes visible. This is not an exceptional phenomenon, but can be found online in numerous cases where flat design is used to tell adults a story. It is the same on the webpage for Seattle Cider (2013), which explains the production method in the same child-orientated style, or with the introduction to a US road trip on Highway One along the Californian coast for London's tailor-made luxury vacations (Exsus 2013) produced by the digital strategy agency Shout. When flat design suitable for children is the chosen design style to tell adults stories, an interesting phenomenon becomes visible: infantilization. But what started this infantilization? And does it address the child in us? Or does it address us as a child? What are the forces at work within this style?

On flat design, technological determinism and its limits

To some extent, the emergence of the childlike style of flat design is driven by technological requirements stemming from the rise of the mobile internet; of course, the most interesting aspect is the one which escapes this explanation. But first things first. Using the internet via smartphones or tablet computers changed the requirements for online design (Zimmerman 2014). Different screen sizes and a variety of connections, such as 3G, 4G, GPRS and so on, had to be taken into account alongside broadband. Detailed textures, gradients or drop shadows, typical of a graphic user interface which elaborately emulates the real world, contain a lot of information about their shape. Minimal elements need fewer parameters and tend to load faster. Also, they are easier to streamline across different devices and their screens, which makes them preferable from the perspective of 'responsive design'. A new look emerged: 2013 became the year in which flat design won the 'battle flat design vs. realism' (Intacto 2013). And this time, the new look was triggered

by a company that had so far been mostly known for learning from the innovation of others: Microsoft.

Faced with the staggering success of Apple's iPhone, Microsoft decided to enter the same area but to respond with a very different approach (Wingfield 2012a). Eager to avoid Apple's extensive use of skeuomorphism, the Microsoft designers decided to focus on cards instead of buttons. Their inspirations were European transportation signs, with their neat grids of tiles and words, and the design principles of classic Swiss graphic design, which favours a minimal style, emphasizes typography and uses a grid. With text placed on cards instead of using buttons, one could navigate laterally by scrolling canvases. The typography-based design language known today as 'Microsoft Design language' followed the requirements of responsive design, and broke the content of a page down into individual components and modules. Its principles had originally been developed for Microsoft's mobile media player Zune (2006–2008), before they were taken over to the Windows phone, launched in 2010. Its flat design inspired others. Soon the use of cards as a principal design element was widely copied. The new design allowed Microsoft to find itself in a new role: the critics greeted it with enthusiasm (Wingfield 2012b). Four years after the Windows phone was launched, their general approach can be found not only on all sorts of different devices but also within other services, including Google's search results.

Around the same time, another trend emerged online: websites changed their navigation, replacing the notion of 'browsing' and 'pages' with a preference for 'scrolling'. Services such as Tumblr or Twitter were among the first to implement 'endless scrolling'. Automatic loading of content replaced the link to older pages at the end of a page. Also, web designers began incorporating a technique called 'parallax scrolling', which was used first in traditional movie animation, and then later in arcade games and video games such as 'Sonic the Hedgehog'. By combining two or more layers, such as a fast-moving foreground layer for the hedgehog with a slowly moving background layer for the environment he runs through, the illusion of movement is created. Using HTML5 and CSS3, webpages started to realize this effect with the help of the user's scrolling; the British Legion is one example among many who made use of this. The new technique gave rise to new ways of digital storytelling: it guides the visitor of a webpage through visual story elements while allowing him at the same time to click and dig for hidden information on these scenes. Its breakthrough was in 2011, with the online campaign 'Nike Better World'; a design by Ian Coyle which allowed the visitor to glide seamlessly through different 'scenes' and broke down complex production aspects of Nike's shoes into visual stories.

However, the simple, playful, infantile design that has recently become the contemporary style in which we manoeuvre is not just driven by technical forces. While digital technology led designers to prefer flat, modular and responsive elements, this does not explain why contemporary interfaces and

brand designs have started to address adults as if they were kids: breaking down complexity, colourful design, big typography, and animated animals or things with friendly faces. And it is not just about being amicable and nice, either. As Althusser has shown in his theorization of ideology, being addressed is an act whereby an individual is transformed into a specific subject, which he describes as follows: 'ideology "acts" or "functions" in such a way that it "recruits" subjects among the individuals [...], or "transforms" the individuals into subjects [...] by that very precise operation which I have called *interpellation* or hailing' (Althusser 2006, 105). In our contemporary case, his approach helps us to question our infantile online world from two perspectives. The first looks at the interpellation: As what are we recruited in this call, and what is being said, when we are addressed as children? Also, what is the discursive position of this address; what is being addressed as a child all about? Why does it occur now, and what is the specificity of its occurrence?

What does it mean that technology is addressing us in this way? To answer this question, let us observe the role the technology company takes in this interpellation. First of all, we notice that they present themselves as colourful and friendly, and give the impression that they are playful and easy to use: a friend one can interact with, a playfellow. This friend, the technological interface, avoids appearing as something superior but presents itself at eye level. This is relevant, as David F. Noble has reminded us: 'If the relationship between technical people and those who wield social power informs their designs and their estimates of what is possible, so too, ... does their relationship with those who must work with, or within, their "systems"' (Noble 2011, 44). In our case, colourful design implements a very specific relationship between user and technology that determines the 'estimate of what is possible'. The style of flat design turns the technical interface into a buddy one can interact with. It appears to be a playfellow that presents itself on eyelevel and avoids appearing as something superior. In this way, 'their system' comes across as innocent: even serious topics are delivered to us in a playful manner, such as the blue dinosaur on Facebook reminding us of too public privacy settings in March 2014 (Albergotti 2014). Addressed as children, we do not need to think about our actions, or bear the consequences. Everything looks easy and fun. By this, users are manipulated into becoming well-entertained subjects, who are carefully prevented from getting bored and turning somewhere else.

This approach resonates well with another phenomenon of our contemporary society: gamification, a term used for game thinking and game mechanics in non-game contexts (Fuchs et al. 2014). The general breakthrough of the concept dates back to 2010, when it was driven by the gamified mobile social networking application Foursquare (Deterding et al. 2011). Game and media theorist Joost Raessens (2014, 105) explains the rise of gamification with the structural similarities of the digital and games:

‘digital media offer forms of pleasure and annoyance resulting from the interactive aspect: there is frustration when the computer does not perform what you want it to do and pleasure involved in surrendering to the rules or conversely opposing them’.

Driven by new playful digital media, Raessens (2006; 2014) is not alone in observing a ludification of our societies. In recent years, researchers of several disciplines have determined a transformation of the concept of work as it was known in the 20th century. Back then, work was understood as being in opposition to leisure; now it seems to be an operation incorporating creativity and play. In sociology, Luc Boltanski and Eve Chiapello (2006) have shown the rise of a new spirit of capitalism, which poses as a central value creativity instead of obedience. In media studies, Tiziana Terranova (2004) has described the rise of free labour on the web, where users will work long hours on projects or platforms without getting paid, caught between exploitation (work) and pleasure (play). In management studies, Niels Åkerstrøm Andersen (2009) has described the surprising magnitude and prevalence of play in all its variations by looking at a wide range of cases in contemporary organisations: in offices of start-ups and tech companies, the distinction between work and non-work has been made blurry. The colourful open working space of Twitter’s office in San Francisco is flanked by lounges, snack bars, game rooms and two life-sized green deer, and offers a huge rooftop for chilling out. Google’s ‘Super HQ’ in London’s 1-13 St Giles High Street which opened in 2012 provided for its 600 employees staff beach huts as meeting or reading rooms, a recycled jet fighter ejector seat, and oversized padded furniture to give the impression of being back in Granny’s flat. And even smaller start-ups such as the London-based research reference manager Mendeley have at least a football table (Bonasio 2013). All play and no work.

From this perspective, the spreading of gamification and the ludification of our societies, as well as the transformation of the concept of work, seem to be part of the same shift which is currently driving Western societies. Both workers as users are manipulated into becoming well-entertained subjects who are carefully prevented from getting bored and turning somewhere else. But while gamification and the infantilization of interfaces share aspects, they also need to be differentiated, as games are not necessarily for children. Football, golf, tennis, or even betting, theatre or role-playing games, board or party games are games for adults. It is not in games, but in the world of digital technology, where we find ourselves addressed as children. Therefore, the infantilization of interfaces cannot be fully explained by the phenomenon of gamification. To find an explanation for this, one needs to look at the phenomenon again. For something else is also at work in infantilization: childlike interfaces suggest that there is no need to understand the forces and interests that have created those bright colourful surfaces. Cheerful design sets users free from second thoughts about the complexity of the

technological apparatus, or about the complexity of the world we live in. The user does not need to understand, but just needs to try it: go create! No need to think twice. Simply do as you are invited, and play along happily, dear child.

From the perspective of the technology company developing tech services, apps, tools or devices, *stupidity*, not understanding, is the desirable state the user should be in. As it is, stupidity has turned from a deficiency to an advantage: in view of the fact that digital technology in general, and code in particular, is something highly complex (Berry 2011, 74 and 98–99; 2014) and can only be understood by nerds, technological applications need to look easy and fun. This conceals the fact that they address everyone on the level of simple minds: innocently, they look suitable for children. Here, infantilization excels at masking stupidity. It lures the user into making use of this highly complex thing called digital technology. It masks the fact that stupidity has taken on a central role within modern capitalism. As Deleuze and Guattari have described it, it has become an apparatus which operates ‘at the heart of production itself’: capitalism doubles ‘capital and the flow of knowledge with a capital and an equivalent flow of *stupidity*’ to ensure ‘the integration of groups and individuals into the system’ (Deleuze and Guattari 2000 [1977], 235–236). After all, challenging people and handing them responsibility would only scare them away. And media, as Matthew Fuller and Andrew Goffey recently observed, have an important ‘role [...] in propagating, amplifying, embedding, and redistributing stupidity’ (Fuller and Goffey 2012, 168). But this is not all – the situation is more complicated. Infantilization is not always patronizing. It is ambivalent, a tendency we find so often when we look at the being of technology. For sure, simplification and deskilling can turn out to be manipulatively patronizing, but they can also empower people to use an unfamiliar tool, and sometimes they do both at the same time. For to empower people you need to ensure their ‘integration...into the system’ (Deleuze and Guattari 2000 [1977], 236). While there is certainly a force of manipulation, next to it we find an idea of empowerment. In fact, this idea was essential for the evolution of the graphical user interface in the 1970s.

Back then, theories of learning and problem solving informed the ideas of computer engineers about symbolic machines and their interfaces, especially those of developmental psychologist Jean Piaget. When observing very young children between the ages of two and seven, Piaget recognized a specific way in which children start playing and analyse their environment using mental symbols. From his observations, he could only conclude that the logic evolving at that age is not only formed in the brain. Experimental operations and figurations are equally important: ‘I believe that logic is not a derivative of language. The source of logic is much more profound. It is the total coordination of actions, actions of joining things together, or ordering things, etc. This is what logical-mathematical experience is’ (Piaget 1972,

13). His approach was picked up by mathematicians and computer scientists, such as Seymour Papert and Alan Kay. For them, the computer became a thing that was not focused on calculations but on experimental understanding. Papert had worked with Piaget at the University of Geneva from 1958 to 1966 (Papert 2007), and Piaget's influence can be found in Papert's work on educational computers: the creation of the computer language Logo, or the programmable robot 'Valiant Turtle', sold from 1983 to 2011. But while Papert adapted Piaget's theories to teach children programming, his friend and colleague Alan Kay broadened this approach to 'Children of All Ages'. Relying on the insights of Piaget that logic can be produced by actions as much as by language, he wrote the proposal 'A Personal Computer for Children of All Ages' (Kay 1972). Like our contemporary devices, this portable educational computer "Dynabook" developed at the Xerox Corporation's Palo Alto Research Center (PARC) was self explanatory. Kay was also a driving force to refine the concept of hyperlinks and extend it to graphics: a precursor of today's graphic user interface, which finally made personal computers easy to understand and, therefore, to use, and turned them into a mass product. With the graphical user interface a new user emerged, who could operate the computer without external training. Like with video games one could now learn the rules and tasks simply by playing, and this is why one speaks of 'digital natives' or 'digital literacy' (see, for example, Manovich and Tifentale 2015, this volume). Adapting learning to 'children of all ages' made the computer popular beyond computer experts and scientists. It revolutionized the knowledge one needs when using computers, although it also meant that from now on learning would always continue and school would never end. Today, the infantilization of interfaces described above can also be read as a sequence of this approach. Making interfaces more playable emerges as a way to increase media literacy and make new technologies more attractive to marginalized users (Kücklich 2004).

Conclusion

The difference between empowering the user and manipulating her or him is minimal, but decisive: it makes a difference whether the interface is empowering you, or patronizing you while hiding it in bright, friendly colours and the technique of infantilization. In a conversation about this contemporary problem of interface designs, Robert Ochshorn (2014) pointed out that there is, indeed, a fine line between 'designing to empower a skilled user' and 'designing to prevent a user from *feeling* stupid'. This means that the difference between the interface assuming you are intelligent and teaching you to outgrow it, and patronizing the user by eliminating the possibility of making mistakes while effectively controlling her or him, is difficult to spot. Following Wendy Chun, who addresses the new media of today as a habit, one can say that habits 'are both inflexible and creative' (Chun

forthcoming 2015; Chun 2015, this volume), while Tiziana Terranova (2004, 83) has pointed out that online spaces cannot be conceived as ‘purely functional’. As I have pointed out elsewhere (Bunz 2014, 50), this is a tendency we find often when looking at the *being of technology*: technology is haunted by an ambivalence – in this case, its potential to manipulate and its potential to empower people.

Despite infantilization looking friendly and innocent, it might follow other interests, and, at a time in which computers are becoming ubiquitous, we need to be aware of this. Soon, infantilization might leave our screens to be found on the things around us – Google has recently launched a car with a smiling face. Being addressed as a child is ambivalent, and this ambivalence is typical of our time: technology companies want people to feel comfortable and play with their technology. At the same time, people also need to take technology into their own hands, as learning how to use it not only empowers them, but also shapes what technology becomes: school will never end.

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