

WELLNESS CAPITALISM AND THE DESIGN OF THE PERFECT USER

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"Today, technological humanism replaces the Vitruvian Man with the Perfect User, who sits atop the hierarchy of all users. Mindful, intentional, healthy, disciplined, minimalist, designed: these features have become the 'measure of all things' for today's aspirational user-subject."

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Discovering the Humanities¹

On June 9 2019, former Google designer-turned-critic Tristan Harris tweeted, “we need a new field of ‘Society & Technology Interaction’ (or STX)” (@tristan-harris, 9 June, 2019). This ‘new field’, he claimed, would research ways to realign technology so that it worked in the best interest of humanity. Harris is the figurehead of a loosely associated group of former technology insiders who have publicly raised ethical concerns about the persuasiveness of their designs and algorithms (‘persuasive technology’), and the degree to which persuasive technology is integrated into the Facebook and Google platforms, among others.² Once labelled by the media as “the only person in the Silicon Valley with a conscience”,³ Harris leads the Center for Humane Technology (CHT), an influential organization that aims to reform the technol-

gy industry and design practice.

Harris’ tweet was part of a wider thread in which humane technology practitioners and advocates discussed the need for a socio-political, critical turn in User Experience (UX) Design; the response by academics and social scientists was swift—and often fierce. Underscoring their general disdain was a perception that Harris was ignorant of science and technology studies (STS), internet and platform studies, and other various sub-fields within the social sciences and humanities that have been critiquing persuasive technology for some time.⁴ Some replies accused Harris of “columbusing”, a colloquial term to denote the claim of ‘discovery’ when nothing new has been discovered. More sympathetic academics called on their colleagues to reflect on their own institutional barriers in trying to undertake interdisciplinary research and establish new fields.

At a broader level, the emergence of the Center for Humane Technology and the call for the new field of STX signals a cultural-hegemonic shift in Silicon Valley towards what Tarnoff and Weigel call “technological humanism”.⁵ Technological humanism draws upon a classical Humanist moral framework to argue that persuasive technology leads to a

1 Our argument structure follows the key stages of the Double Diamond framework synonymous with design thinking: Discover, Define, Develop, Deliver. We use this framework to demonstrate the expansion of design as a paradigm in Big Tech’s user- and customer-centred strategies. By following the four steps of the Double Diamond we mirror the strategic UX Design phases that work to design and produce the user-subject.

2 Paul Lewis, “Our minds can be hijacked”: the tech insiders who fear a smartphone dystopia. *The Guardian* (October 6, 2017), <https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>, access: April 7, 2021, 8:00 pm.

3 Bianca Bosker, The Binge Breaker: Tristan Harris believes Silicon Valley is addicting us to our phones. He’s determined to make it stop. *The Atlantic* (November 2016), <https://www.theatlantic.com/magazine/archive/2016/11/the-binge-breaker/501122/>, access: April 7, 2021, 8:00pm.

4 See Virginia Eubanks, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (New York 2018); Safina Noble, *Algorithms of oppression: how search engines reinforce racism* (New York 2018); Nick Seaver, Captivating algorithms: Recommender systems as traps. *Journal of Material Culture* (2018).

5 Ben Tarnoff and Moira Weigel, Why Silicon Valley can’t fix itself. *The Guardian* (May 3, 2018), <https://www.theguardian.com/news/2018/may/03/why-silicon-valley-cant-fix-itself-tech-humanism>, access: April 7, 2021, 11:00pm.

“downgrade”⁶ of humanity—evidenced by digital addiction, superficiality, and an overall degradation of mental health. For the CHT and other tech humanists, humane technology and design practices can and should enhance the human condition. As part of this determinist approach to technology, a number of wellness groups, practices, and applications have emerged from, and are converging around, the CHT. On the CHT website, for example, readers are offered tips to make their phone use less habitual, with links to recommended mindfulness or time-management apps, such as *Calm* or *Moment*. Under a header of “Take Control”, these tips reinforce an approach to technology that is founded in digital wellbeing or “digital healthism”.⁷ Indeed, humane technology can be seen as the latest incubators of the deep-seated Silicon Valley cultural belief that technology has the potential to solve social issues and maximize human potential,⁸ and underscores a Humanist belief in the ability of the individual to act in concert with their own intentions.

Technological humanism reinforces many of Humanism’s central tenets.

Concepts such as the sovereign, rational human agent, who “remains separated from his world by maintaining his mastery over it”,⁹ have not only survived in the new technological age but have found new purpose in practices like Human Centered Design. Notably, Humanism’s “unshakable certainty [in] the almost boundless capacity of humans to pursue their individual and collective perfectibility”¹⁰ is being reinvigorated with the aegis of Californian wellness culture,¹¹ which attempts to align intentional technology use with self-mastery.

The backlash Harris received in response to his STX tweet may be read as a flashpoint in the emerging discourse of technological humanism, which appears to ignore many hard-won gains in theories of anti-human and post-human subjectivity, for which, as Halberstam and Livingston put it in *Posthuman Bodies*, we “have *never* been human”¹²—at least not in the way that Humanism recognized. As Braidotti wrote in the opening pages of *The Posthuman*:

Not all of us can say, with any degree of certainty, that we have always been human, or that we are only that. Some of us are not even considered fully human now, let alone at previous mo-

6 Tristan Harris, Humane: A New Agenda for Tech. *The Center for Human Technology* (2019), <https://humanetech.com/newagenda/>, access: April 7, 2021, 11:00pm.

7 Adam Fish, Technology Retreats and the Politics of Social Media. *triple C* 15 (2017), pp. 355–369. Adam Fish defines ‘digital healthism’ as the positioning of the individual as responsible for their digital consumption.

8 Dorien Zandbergen, Fulfilling the Sacred Potential of Technology: New Edge Technophilia, Consumerism and Spirituality in Silicon Valley, in: *Things: Material Religion and the Topography of Divine Space*, eds. Birgit Meyer and Dick Houtman (New York 2012), pp. 356–379.

9 Benjamin Bratton, *The Stack: On Software and Sovereignty* (Cambridge, MA 2015), p. 251.

10 Rosi Braidotti, *The Posthuman* (Cambridge 2013), p. 13.

11 Daniela Blei, The False Promise of Wellness Culture. *Jstor Daily* (January 4, 2017), <https://daily.jstor.org/the-false-promises-of-wellness-culture/>, access: April 7, 2021, 9:00am; Barbara Ehrenreich, *Natural Causes: Life, Death and the Illusion of Control* (London 2018).

12 Jack Halberstam and Ira Livingston, *Posthuman Bodies* (Michigan 1995), p. 8; emphasis added.

*ments of Western social, political, and scientific history. Not if by 'human' we mean that creature familiar to us from the Enlightenment and its legacy: the Cartesian subject of the cogito ... the subject as citizen, rights-holder, property-owner, and so on.*¹³

The notion of humane technology both requires and assumes a human subject; yet, those who are most vocal in advocating for humane technology appear to rely on an outdated concept of human subjectivity, and the exclusionary politics on which it has historically relied. As Jasanoff argues, "it is our understanding of what being human means that has changed along with our technological achievements"¹⁴, and yet, for many in the technology sector, the category of 'human' remains curiously fixed. What is urgently needed, then, is an awareness of precisely how discourses and applications of humane technology may be working to re-position Silicon Valley entrepreneurs, designers, and programmers as the ideal reformers of humanity.¹⁵ The response Harris received to his

STX tweet might therefore be read as part of ongoing debates regarding who gets to define the category of the human, as well as who gets to be considered most 'fully human' in our current techno-social predicament.

In this article, we draw connections between technological humanism and the emergence of the user as the privileged subject position of our time.¹⁶ Specifically, we argue that the array of wellness apps that are emerging from the humane technology movement are extending the Humanist drive for individual perfectibility—actively producing what we call the 'Perfect User'. We consider the Perfect User to be a thoroughly designed, homogeneous subject position into which any individual user may momentarily step.¹⁷ Impossible to sustain yet requiring constant labor, the Perfect User is the ideal instrument for wellness capitalism. Here, we interrogate the specific UX Design processes by which Silicon Valley wellness culture is actively involved in configuring this new taxon of user, and the ideological function of this user-subject in contemporary technopolitics.

13 Braidotti, *The Posthuman*, p. 1.

14 Sheila Jasanoff, *Perfecting the Human: Posthuman Imaginaries and Technologies of Reason*, in: *Perfecting Human Futures, Technikzukunft, Wissenschaft und Gesellschaft / Futures of Technology, Science and Society* (Wiesbaden 2016), p. 74.

15 Maya Ganesh, *The Center for Humane Technology Doesn't Want Your Attention*. *The Society Pages* (2018), <https://thesocietypages.org/cyborgology/2018/02/09/the-center-for-humane-technology-doesnt-want-your-attention/>, access: April 7, 2021, 6:00pm; Lilly Irani & Rumman Chowdhury, *To Really "Disrupt," Tech Needs to Listen to Actual Researchers*. *Wired* (2019), <https://www.wired.com/story/tech-needs-to-listen-to-actual-researchers/>, access: April 7, 2021, 5:00pm; Luddbrarian, *Be Wary of Silicon Valley's Guilty Conscience: on The Center for Humane Technology*. *Librarian Shipwreck* (2018), <https://librarianshipwreck.wordpress.com/2018/02/13/be-wary-of-silicon-valleys-guilty-conscience-on->

the-center-for-humane-technology/, access: April 7, 2021, 6:00pm; Tarnoff and Weigel, *Why Silicon Valley can't fix itself*.

16 Bratton, *On Software and Sovereignty*; Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge, MA 2011); Patricia Clough, *The User Unconscious* (Minneapolis 2018); Tung-Hui Hu, *A Prehistory of the Cloud* (Cambridge, MA 2015)

17 See Clough, *The User Unconscious*, p. 5, in which she paraphrases the work of both Wendy Chun and Benjamin Bratton: "The subject actually is a subject- or user-position into which anyone or anything human or other-than-human can enter and does enter, mostly temporarily, operating in relation to programs and platforms at any one or any number of the layers of planetary computing".

A number of STS scholars have recently considered the user-subject as an evolution of the Humanist subject. These scholars note, in particular, the way computers appear to extend the volition of the human subject via command-and-control applications and devices. Chun, for example, argues that computers “embody a certain logic of governing or steering us through the increasingly complex world around us”,¹⁸ thereby providing nourishment to the Enlightenment model of subjectivity:

*The dream is: the resurgence of the seemingly sovereign individual, the subject driven to know, driven to map, to zoom in and out, to manipulate, and to act. The dream is: the more that an individual knows, the better decisions he or she can make.*¹⁹

Bratton, in *The Stack*, marks the connection between the Humanist subject and the user-subject within the space of a single sentence:

*[A]s this figure [the individual of Humanism] came to organize systems in its own image, its synthetic replication through microeconomics and social psychology set the state for its cohesion into what is called, by design, the User.*²⁰

Orit Halpern²¹ and Tung-Hui Hu²² make similar connections in their work. The purpose of our article is to add to emerging literature on user-subjectivity by examining the specific UX Design meth-

ods through which the user-subject is designed, ‘perfected’, according to Californian wellness ideology and technological humanism. To do this, we use the walk-through method²³ on one wellbeing app, *Siempo*, and draw from interview material that one of the authors undertook for his PhD, to demonstrate that UX Design functions in this instance by hailing the human subject as a particular kind of user—specifically, a Perfect User. Put differently, we argue that *Siempo* is actively involved in *producing the kind of subject with which it claims to interact*.²⁴ Ultimately, our purpose is to scrutinize UX Design practice and tech humanism for its ontological and ideological implications, asking: how is technological humanism reconfiguring the drive-to-perfection for the user-subject? Further, what ideological structures are arising alongside the Perfect User to ensure its functioning?

18 Chun, *Programmed Visions*, p. 9.

19 Ibid., p. 8.

20 Bratton, *On Software and Sovereignty*, emphasis added.

21 Orit Halpern, *Beautiful Data: A History of Vision and Reason since 1945* (Durham 2014).

22 Hu, *A Prehistory of the Cloud*.

23 Ben Light, Jeans Burgess and Stefanie Duguay, The walk-through method: An approach to the study of apps. *New Media & Society* 20 (2018), pp. 881–900.

24 This idea is adapted from Benjamin Bratton, who writes: “technology has begun to build us in its own image, producing the very subjects it claims to be interacting with” (2015, 18); See also Judy Wajcman, How Silicon Valley Sets Time. *New Media & Society* 21 [6] (2019), on how Silicon Valley enacts the user through the design of calendar apps. In the context of interface critique see Florian Hadler and Joachim Haupt (eds.), *Interface Critique* (Berlin 2016), which views the interface as a “dynamic cultural phenomenon”; scholars such as Hadler and Haupt seek to understand how culture is imbricated in the design of the interface and the user. See also Florian Hadler, Beyond UX. *Interface Critique Journal* 1 (2018).

Defining the Ideal User

Design has long been an active participant in the configuration of the user as a privileged and practical subject position.²⁵ From the mid-1950s, design shifted from a techno-centric to a human-centric approach, which both reinforced and reproduced an understanding of the user as a discrete, sovereign, individual agent.²⁶ According to human-centric design (HCD) doctrine, it was towards this putative human user that design should orient itself. As part of the HCD research process, designers posited 'ideal users' for intended products, messages, or services, which came to be known as 'personas'. In one of the best-known examples of design personas, Dreyfuss created 'Joe and Josephine', whom Bratton dubs the "Adam and Eve of use-case personas".²⁷ In Dreyfuss' 1955 book *Designing for People*, he describes in detail the characteristics and everyday habits of Joe and Josephine, who came to represent the most average of all American couples. These "two extraordinarily typical people"²⁸ became the use-case personas against which normative, ergonomic standards of industrial design were measured in America for decades to come, introduc-

ing the notion that design should be 'frictionless'. As Dreyfuss articulated,

*when the point of contact between the product and the people becomes a point of friction, then the [designer] has failed. On the other hand, if people are made safer, more comfortable, more eager to purchase, more efficient—or just plain happier—by contact with the product, then the designer has succeeded.*²⁹

Building on the HCD approach, UX Design foregrounds a deep understanding of user behaviour and, increasingly, incorporates elements of human psychology into the design process. For Don Norman, good design should function as an intuitive, unconscious mediator between user and the product.³⁰ In *The User Experience Team of One*, Buley writes that "a user experience is the overall effect created by the interactions and perceptions that someone has when using a product or service".³¹ Buley situates UX as simultaneously a reaction against the machine-age dehumanization of labour, and a descendant of Taylorist concepts regarding efficiency between workers and tools. For example, Buley cites Toyota's factory system as an example of good UX, since it included workers in trouble-shooting systems and processes, and harnesses their human knowledge and input to streamline production.³² Parallel to these system-design approaches was

25 Bratton, *On Software and Sovereignty*.

26 Laura Forlano, Posthumanism and Design. *She Ji: The Journal of Design, Economics and Innovation* 3 (2017).

27 Bratton, *On Software and Sovereignty*, p. 251.

28 *ibid.*

29 Henry Dreyfuss, *Designing for People* (New York 1955), p. 25.

30 Don Norman, *The Design of Everyday Things*. Revised and expanded edition (Cambridge, MA. 2013).

31 Leah Buley, *The User Experience Team of One: A Research and Design Survival Guide* (New York 2013), p. 5.

32 *Ibid.*, p. 10.

the rise of cognitive and behavioural science, which influenced the design industry's understanding of the user.³³ The psychological influence in UX has become known by a range of monikers, including 'persuasive technology'³⁴ and 'designing with intent',³⁵ and has the goal of influencing the user through manipulation of behavior, emotion, and cognition.

In recent years, the trajectory of design—from techno-centric, to user-centric, to UX and Interaction Design—has become the object of critical analysis in STS.³⁶ This work has revealed a structural shift in design approaches, from designing *for* the user to a *design of the user-position itself*.³⁷ Stark has described it thus: "a user-subject [was] first identified as an entity to be designed for, and then thrown back to the human person as a model with which to conform or suffer".³⁸ Bratton labels this shift the 'death of the user', by which he means

the expiration of a specific kind of user [...] and the displacement of the soft humanism from the conceptual center of design for the user-subject position and towards a design of the user-sub-

*ject position.*³⁹

Although this paradigmatic shift in design may be applied to many contexts, it is arguably in the tech sector where this shift is most keenly felt, and its effects on subjectivity most pervasive; as Bratton writes, technology has begun to build us in its own image, producing the very subjects it claims to be interacting with.⁴⁰

The notion that the user-subject is a thoroughly *designed* subject position bears some relationship to the Ontological Design approach—although there are also important differences. Ontological Design postulates that "design is something far more pervasive and profound than is generally recognized by designers, cultural theorists, philosophers or lay persons".⁴¹ Anna Willis describes this as a "double movement" of design, by which "we design our world, while our world acts back on us and designs us".⁴² In this model, intentionality does not originate or manifest in any one location; rather, intentionality "could be seen as inhabiting three continuous inter-connected regions ... That is, no distinction is being made about the nature or relative significance of determinations; neither object, process nor agent is granted primacy".⁴³ However, Ontological Design does not appear to adequately account for the unequal power relations that structure

33 Ibid.; Rex Hartson and Pardha Pyla, *The UX Book: Process and Guidelines for Ensuring a Quality User Experience* (Boston 2012)

34 B.J. Fogg, *Persuasive Technology: Using Computers to Change What We Think and Do (interactive Technologies)* (San Francisco 2002).

35 Dan Lockton, *Design with Intent: Insights, Methods, and Patterns for Behavioral Design* (Cambridge 2017).

36 Bratton, *On Software and Sovereignty*; Hu, *A Prehistory of the Cloud*; Tara McPherson, *Feminist in a Software Lab: Design and Difference* (Cambridge, MA 2018).

37 Bratton, *On Software and Sovereignty*.

38 Luke Stark, *Algorithmic Psychometrics and the Scalable Subject*. *Social Studies of Science* 48 (2018), pp. 204–231.

39 Bratton, *On Software and Sovereignty*, p. 260; italics added.

40 Ibid., p. 18.

41 Anne-Marie Willis, *Ontological Designing – Laying the Ground*. *Design Philosophy Papers* 13 (2006), pp. 69–74.

42 Ibid.

43 Ibid.

many or most interactive technologies. As Zuboff argues, these technologies operate through unprecedented asymmetries in knowledge and the power that accrues to knowledge. Technology works by “knowing everything about us, yet their operations are designed to be unknowable to us. They accumulate vast domains of new knowledge *from us*, but not *for us*.”⁴⁴ As such, although it is useful to consider the close relationship between design and being—the idea that ‘design designs’—this approach does not go far enough in considering the specific design methods by which this occurs, nor its socio-political or ideological implications. In our analysis of *Siempo*, we have therefore looked closely at the ways in which the representation of the ideal user in the app’s UX Design becomes conflated with the user-subject position itself, producing a Perfect User against which users can either ‘conform or suffer’.

Developing the Intentional User

In 1959, Halbert Dunn—the so-called father of the wellness movement—defined wellness as “a condition of change in which the individual moves forward, climbing toward a higher potential of functioning”.⁴⁵ Today, wellness capital-

ism materializes in the form of juice bars, meditation retreats, detox diets, intentional eating, intentional living, mindfulness, and, of course, wellbeing apps.⁴⁶ Although not geographically restricted to the Silicon Valley region, or California more broadly, wellness capitalism in its current form remains ideologically tethered to that place and is unique history of counter-cultural movements and technological innovation. Hesmondhalgh, for example, directly links wellness culture to the Silicon Valley tech sector, and although he does not use the term ‘wellness capitalism’, he certainly goes some way in describing its operations:

*The rise of the Internet and mobile communication emerged from a new and evolving type of capitalist activity, centred on Silicon Valley, which presented itself as benign, and was accepted as such by many commentators. The social media produced by Silicon Valley have further fuelled the continuing growth of promotional communication, including the rise of ‘self-branding’, an increasing insertion of competitive behaviour into people’s efforts at self-realisation.*⁴⁷

In Silicon Valley, the latest means to achieve a sense of ‘higher potential of functioning’ is to behave ‘intentionally’. Intentionality generally refers to goal-orientated behavior⁴⁸ or conduct

44 Shoshanna Zuboff, *The Age of Surveillance Capitalism: The Fight for the Future at the New Frontier of Power* (London 2019), p. 9.

45 Dunn, qtd. in Blei, *The False Promise of Wellness Culture*.

46 Blei, *The False Promise of Wellness Culture*; see also Carol-Ann Farkas, “Tons of Useful Stuff”: Defining Wellness in Popular Magazines. *Studies in Popular Culture* 33 (2010), pp. 113–132.

47 David Hesmondhalgh, *Capitalism and the media: moral economy, well-being and capabilities*. *Media, Culture & Society* 39 (2017), p. 203.

48 Fiery Cushman, *Deconstructing intent to reconstruct morality*. *Current Opinion in Psychology* 6 (2015), pp. 97–103.

entailing belief, desire, intention, awareness, or skill.⁴⁹ For his part, CHT leader Tristan Harris lives in an intentional community in San Francisco with other technologists.⁵⁰ An intentional community appears to draw upon the New Communalism, which Fred Turner⁵¹ traces as a movement of Northern Californian dropouts who retreated from mainstream American society in the 1960s and 1970s to create communes in their own image. The notion that technology could be used to mitigate social problems grew out of the New Communalist movement,⁵² and has become known as the Californian Ideology.⁵³

Intentionality has become a marketing device to achieve an aspirational, healthy, or focused life,⁵⁴ and is thus a key driver in wellbeing capitalism's 'higher potential of functioning'. The latest iteration of intentionality comes in relation to smartphone usage. Popular authors such as Newport⁵⁵ call for a

lifestyle of digital minimalism, which requires users to take stock of smartphone habits and intentionally choose what to interact with or pay attention to. Intentionality is also an integral part of tech humanist discourse, with unconscious or unintentional use of the smartphone framed as a consequence of potent persuasive technology design. In a US senate hearing in June 2019 on persuasive technology, Google's UX Director Maggie Stanphill claimed that Google "supports an intentional relationship with technology".⁵⁶ The appeal for Google in adopting the language of intentionality may be because it puts the onus of change onto the user, rather than addressing the structural problems of neoliberalism.⁵⁷ We are reminded of a goal that unites tech humanism and digital healthism: in order to maintain and protect user sovereignty, designers should align digital consumptive practices with the users' intentions.

As technological solutionism is in-

49 Bertram F. Malle and Joshua Knobe, The Folk Concept of Intentionality. *Journal of Experimental Social Psychology* 33 (1997), pp. 101–121.

50 Bosker, The Binge Breaker.

51 Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (London 2006).

52 Ibid.

53 Richard Barbrook and Andy Cameron, The Californian ideology. *Science as Culture* 6 (1996), pp. 44 – 72.

54 Cindy H. deBruiler, *Intentional Eating: An Easy, Mindful Approach to Dietary Wellness for Increased Vitality, Weight Control, Chronic Disease Management and Stress Reduction* (Bloomington 2017); Anne Houghton, *Intentional Teaching: Promoting Purposeful Practice in Early Childhood Settings* (Melbourne 2013).

55 Carl Newport, *Digital Minimalism: Choosing a Focused Life in a*

Noisy World (London 2019).

56 US Senate Committee: Maggie Stanphill, Optimizing for Engagement: Understanding the Use of Persuasive Technology on Internet Platforms. *US Senate Committee on Commerce, Science, and Transportation* (June 25, 2019), <https://www.commerce.senate.gov/2019/6/optimizing-for-engagement-understanding-the-use-of-persuasive-technology-on-internet-platforms>, access: April 8, 2021, 7:00pm.

57 Ronald. E. Purser, McMindfulness. How Mindfulness became the New Capitalist Spirituality. *Sexuologie* 26 (2019), pp. 179-180. It also reveals a common discursive pattern for surveillance capitalists; Facebook has similarly appropriated the language of tech humanism, specifically the prior name of CHT, Time Well Spent. In a post on 11 January 2018, Mark Zuckerberg wrote: "By focusing on bringing people closer together – whether it's with family and friends, or around important moments in the world – we can help make sure that Facebook is time well spent."

tegral to Silicon Valley culture⁵⁸ it is perhaps unsurprising that there is an app designed for the specific purpose of encouraging intentional smartphone use. We now turn to an analysis of the wellness app called *Siempo* in order to demonstrate the UX processes by which it delivers a Perfect User. Our analysis follows the walkthrough method defined by Light, Burgess and Duguay, in which the researcher “mimics everyday use” of an app by observing and recording each screen and action, “slowing down the mundane actions and interactions that form part of normal app use in order to make them salient and therefore available for critical analysis”.⁵⁹ The purpose of Light et al.’s approach is for the researcher to engage “directly with an app’s interface to examine its technological mechanisms and embedded cultural references to understand how it guides users and shapes their experiences”.⁶⁰

Walkthroughs are also common in UX, but tend to be less concerned with the socio-cultural implications of the design than achieving optimal usability. In UX practice, design walkthroughs are performed by design ‘experts’, who set out to complete a specific task by attempting to navigate the product from the perspective of the user, but “with an expert’s eye”.⁶¹ This expert-led approach diverges from the justifiably user-centric UX re-

search methods such as usability testing, which The Interaction Design Foundation defines as the “practice of testing *how easy* a design is to use on a group of representative users”.⁶² These UX walkthrough methods reinforce the idea that the user is a persona to be predicted, anticipated, and ultimately brought under control. In contrast, the STS walkthrough method is proposed “not to test whether users respond to an interface in the ways its designers intended, but rather to *illuminate the material traces of those intentions*, and thereby to critically examine the workings of an app as a sociotechnical artefact”.⁶³ The critical examination and execution of walkthroughs across design, social, and cultural studies is well-placed to render visible the particular operations of user-subjectivity, and is arguably the kind of practice that Harris was calling for when he proposed his new field of ‘STX’.

The purpose of *Siempo* is to allow users to disengage from common features of the smartphone that are considered distracting, or which might encourage mindless phone usage. *Siempo* was launched in 2017 by Ava/Andrew Dunn with the explicit purpose of counteracting the “negative nature of today’s technology”.⁶⁴ In an interview with

58 Evgeny Morozov, *To Save Everything, Click Here: The Folly of Technological Solutionism* (New York 2013).

59 Light, Burgess and Duguay, The walkthrough method, p. 882.

60 *ibid.*

61 Hartson and Pyla, *The UX Book*, p. 469.

62 Interaction Design Foundation, Usability Testing. *Interaction Design Foundation* (2018), <https://www.interaction-design.org/literature/topics/usability-testing>, access: April 8, 2021, 8:00pm.

63 Light, Burgess and Duguay, The walkthrough method, p. 886.

64 Sarah Perez, *Siempo’s new app will break your smartphone addiction*. *Techcrunch* (May 19, 2018), <https://techcrunch.com/2018/05/19/siempas-new-app-will-break-your-smartphone-addiction/>, access: April 8, 2021, 8:00pm.

Techcrunch, Dunn said:

*The attention economy is making people more distracted, stressed, lonely and depressed... Big Tech is unlikely to take meaningful leadership in humane design, and individuals are at a loss for what to do because developing healthier digital habits is a long-term, manual, iterative process.*⁶⁵

Siempo aims to address these problems with a set of features designed to appeal to any user concerned they have become “too addicted to their phone”.⁶⁶ Features of the smartphone that are considered by *Siempo* to be potentially distracting are the interface and inventory of apps. *Siempo* deploys the ideal of intentionality to reorganize these features.

Feature 1: Intentional packaging of the interface

Siempo redraws the Android smartphone interface to encourage the user to be more intentional in how they use their device (Figure 1). The user is required to provide consent upon installation which allows *Siempo* to hide all third-party applications on a separate screen and change the Android home screen to grayscale.

The aim of the *Siempo* interface is to discourage unintentional usage. In *Siempo*’s on-boarding process, the app asks ‘What’s your intention?’ (Figure 1) with an open text field. The micro-copy of the text box reads ‘type a few words’ and has

space for 40 characters. When the ‘help’ button below the text box is pressed, users can move through four ‘hints’. The gray text reads: ‘Your answer will appear on your home screen and you’ll see it every time you unlock your phone. Your new mindful home screen will keep you focused on your intention’; ‘Your intention is the goal, aspiration, or idea that you want to prioritize right now. Think of your intention as the path you want to walk along rather a task to be checked off [sic]’; ‘Here are some example intentions: Spend more time with family. Eat healthy foods. Keep my phone locked’; and finally: ‘Type an intention that’s short and positive, and try starting with an action verb. The next time you unlock your phone, you might enjoy pausing to focus on your stated intention.’

Although there is no restriction on what can be entered as an ‘intention’, the ‘help’ prompts attempt to steer a user’s stated intentions in length, phrasing, scope, and focus. There is an assumption that intentions entered by users will be morally ‘good’, and worth pursuing. Dotson writes that “the choices and abilities afforded by technologies are generally assumed to ‘extend’ human volition in a straightforward and unproblematic way”;⁶⁷ however, *Siempo*—like other apps in the humane technology stable—opposes such a concept, instead assuming that much of the functional and aesthetic design of technology takes the user away

⁶⁵ Ibid.

⁶⁶ Dunn qtd. in Perez, *Siempo’s new app will break your smartphone addiction*.

⁶⁷ Taylor Dotson, *Technology, Choice, and the Good Life: Questioning Technological Liberalism*. *Technology in Society* 34 [4] (2012), p. 327.

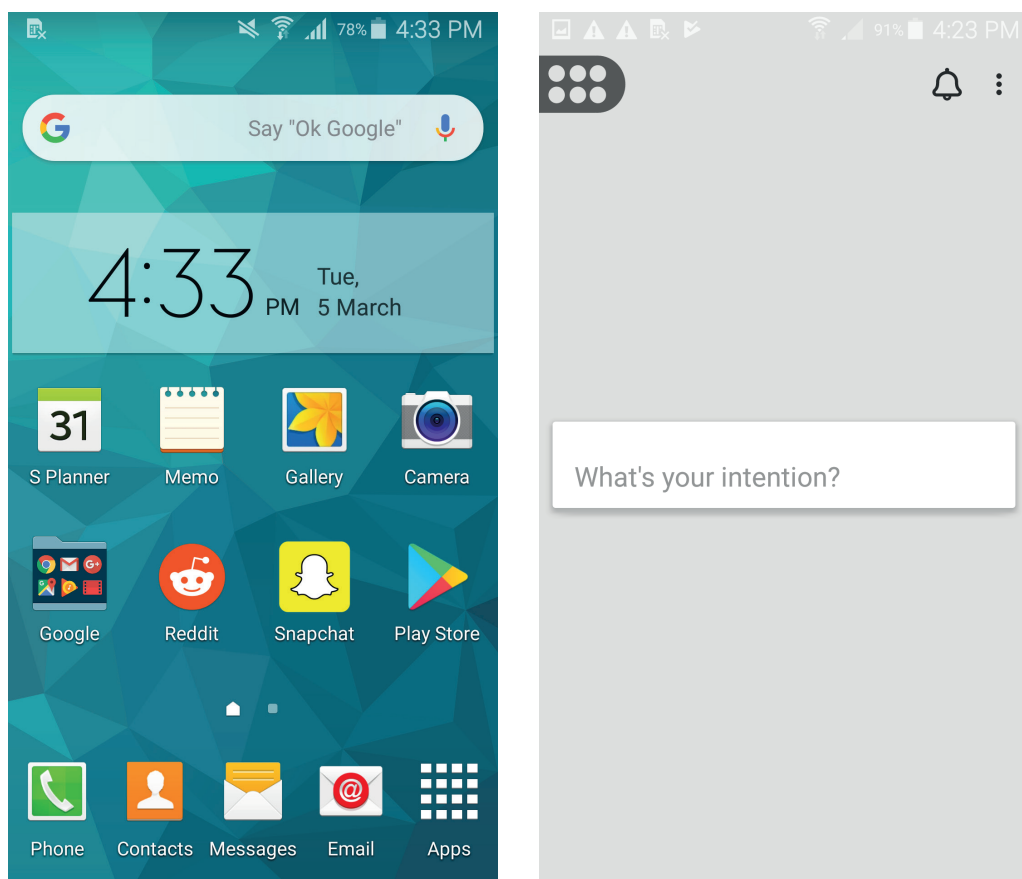


Figure 1: The home screen of a Samsung Galaxy 5 before and after installing *Siempo*.

from their goals and intentions. *Siempo* does not offer guidance on how often an intention should be modified, updated, or changed, and there is only space for one 40-character intention at a time. There is a presumption that users have, or could have, a dominant guiding aspirational intention.

The intention-setting feature aligns with the CHT's *Humane Design Guide*, a framework of 'human sensitivities'—described as “instincts that are often vulnerable to new technologies”—and strategies for ameliorating these poten-

tial deficiencies. In particular, *Siempo's* deliberate intention-stating function addresses the sensitivity of 'Decision-making: How we align our actions with our intentions', which is supported when we are “enabled to gain agency, purpose, and mobilization of intent”.⁶⁸

Once users have set their intention, this text stands out on the screen (Figure 2). Users are still able to customize background images as there are no re-

68 Center for Humane Technology, *Design Guide* (2019), <https://humanetech.com/designguide/>, access: April 8, 2021, 9:00pm.

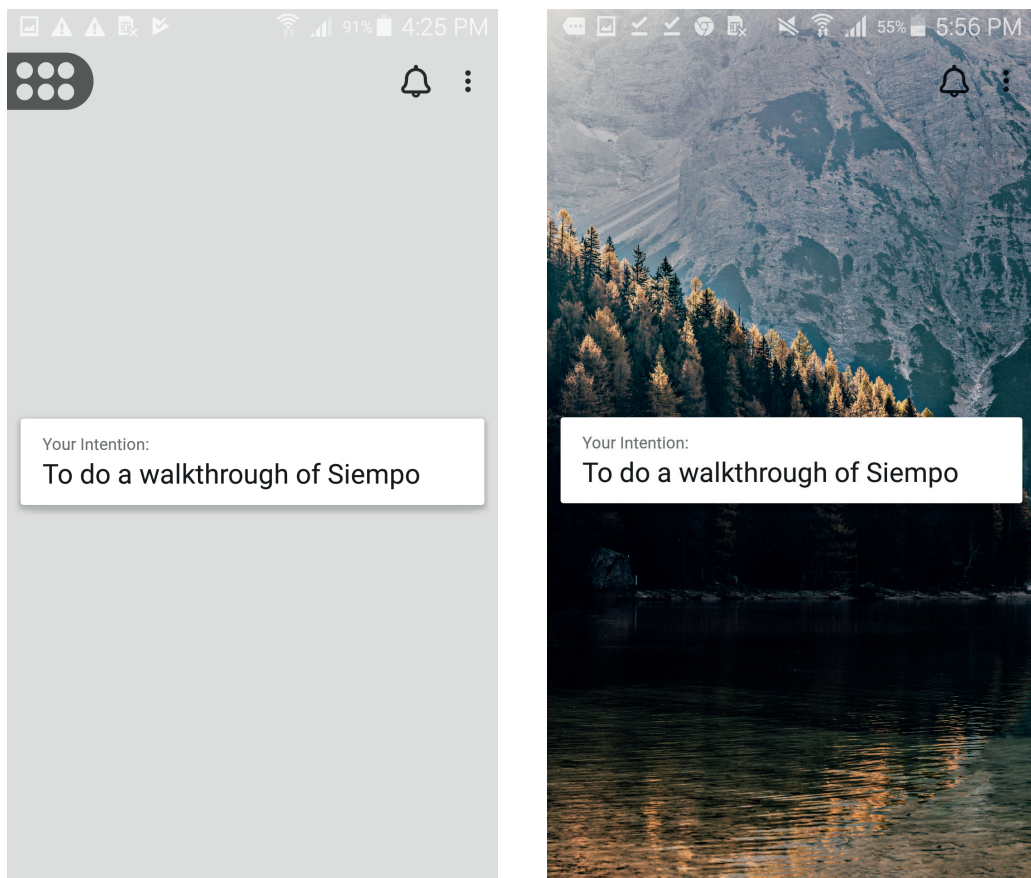


Figure 2: An example of the intentional interface and customizable background.

strictions on what images can be chosen. This implies that *Siempo* considers it more important that the user sets an intention rather than experiences a plain interface. The benefits of setting an intention for digital interactions are not based on empirical evidence⁶⁹ but are,

69 The field of health psychology justifies manipulating people to partake in intentional behavior in situations to address gambling or obesity (Sue Churchill, Donna Jessop and Paul Sparks, Impulsive and/or planned behaviour: Can impulsivity contribute to the predictive utility of the theory of planned behaviour? *Social Psychology* 47 [4] [2008], pp. 631–646; Shoji Ohtomo, Effects of habit on intentional and reactive motivations for unhealthy eating. *Appetite* 68 [2013], pp. 69–75). In contrast, the debate about whether

rather, derived from Silicon Valley drop-out culture, and Californian wellness culture more broadly. Ava Dunn, the Chief Executive Officer of *Siempo*, explains that the purpose of the intention prompt

social media or digital screens are harmful is highly contentious. A number of studies dispute any causality between screens, social media and mental ill health (Amy Orben, Tobias Dienerin and Andrew Przybylski, Social media's enduring effect on adolescent life satisfaction. *Proceedings of the National Academy of Sciences* 116 [2019]; Felix Reer, Wai Yen Tang and Thorsten Quandt, Psychosocial well-being and social media engagement: The mediating roles of social comparison orientation and fear of missing out. *New Media & Society* [2019]). Any claims by *Siempo* that their intentional interface will improve wellbeing is contentious.

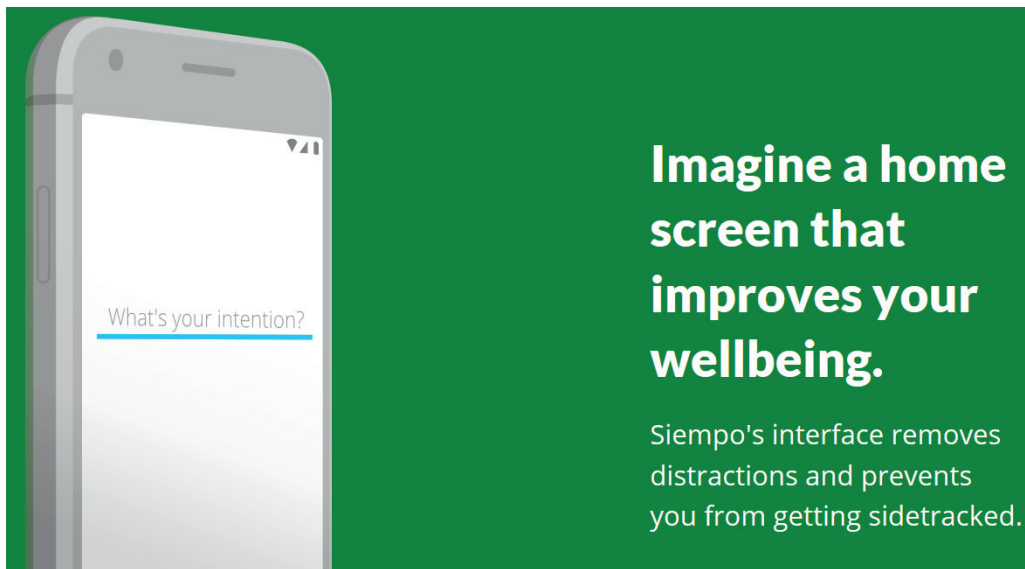


Figure 3: A screenshot from the *Siempo* website.

is to gently nudge the end user to reflect on their smartphone use:

I think that having an intention—whether it's going to a meeting or waking up in the morning for this time of the year—is a really [good] way to invite in what you're looking for in life, and to keep yourself on the track you want to go on. [Having an intention is about] what you want to focus on. There's...I dunno...it's kind of a loose subject, like there's no real science behind it right now so we're just playing with different ways of surfacing it.⁷⁰

As Ava's comments reveal, the benefits of setting an intention for digital interactions are not based on empirical evidence but are, rather, derived from Californian wellness ideology.

Siempo encodes the ethos of inten-

tionality or ideals of goal-orientated behavior within the smartphone interface. Every time the user unlocks their phone or swipes to additional screens, they are reminded of their set intention (see Figure 5). The intentional interface of *Siempo* transforms the smartphone into a self-help assistant, where a focused and purposeful life can be realized. Users are encouraged to disengage from any distractions that could deter them from their set intention. However, it is possible that users may not wish to, and cannot always, act intentionally. Behavioral scientists argue that intentionality is only one factor that motivates behavior, alongside willingness and habit and that to act intentionally all the time is cognitively exhausting.⁷¹ By presuming that the user

70 Alex Beattie, Move Slow and Contemplate Things: An App That Drops Users Out from Distracting Aspects of the Internet, in: *Making Time for Digital Lives: Beyond Chronotopia*, eds. Anne Kaun, Christian Pentzold and Christine Lohmeier (London 2020), p. 145.

71 Churchill, Jessop and Sparks, Impulsive and/or planned behaviour: C; Ohtomo, Effects of habit on intentional and reactive

can maintain a state of intentionality, *Siempo* anticipates the scope of possible purposes and usages of the smartphone, falling foul of what is otherwise known as the 'designer's fallacy'.⁷² In turn, *Siempo* risks inhibiting spontaneous or unintentional usages of the smartphone. However, more than this, the *Siempo* app introduces a relation of power into the subject-object (user-smartphone) relation, in which the user is required to be intentional in order to be recognized precisely as a subject in the first place. As Foucault wrote in *Discipline and Punish*:

*Over the whole surface of contact between the body and the object it handles, power is introduced, fastening them to one another. It constitutes a body-weapon, body-tool, body-machine complex. One is as far as possible from those forms of subjection that demanded of the body only signs or products, forms of expression or the result of labor.*⁷³

With *Siempo* installed, the smartphone becomes a 'body-tool' through which the user-subject must transform themselves into an intentional subject in order to become a 'user' at all. However, as users cannot always act intentionally, what *Siempo* really demands is continuous aspirational behavior. There is less room for unintentional smartphone usage such as idle smartphone play or digital wayfaring; all user activities in-

termediated by *Siempo* are expected to be part of a wider intention. The actual effect of constantly reminding the user of their intention is to subtly nudge users to self-manage their digital consumption and aspire to healthier, productive or otherwise self-optimal modes of living. *Siempo* therefore draws similarities to smartphone monitoring apps that impose "endless micro-project management, transforming downtime into something structured, obedient, and explicitly purposeful".⁷⁴

Feature 2: Tidying the app menu

The aspirations of *Siempo* are made even more apparent via subsequent features, such as the 'tidy app menu'. *Siempo* reorganizes the inventory of apps on a user's smartphone. When users swipe left from the home screen for the first time, they are welcomed to a "healthier app menu!" and prompted to arrange their most helpful apps on this screen (Figure 4). Apps that are considered 'tools'—maps, rideshare apps, or the camera—are foregrounded, occupying positions of convenience in the app inventory. If a tool (e.g. 'wellness') has not been assigned to an app, then the user is prompted to do so. For example, an app that the user could assign to 'wellness' could be the meditative app *Headspace*.

The foregrounding of utility and wellness apps is a reminder of the recent

motivations for unhealthy eating.

72 Don Idhe, The Designer's Fallacy and Technological Imagination, in: *Philosophy and Design: From Engineering to Architecture*, eds. P.E. Vermaas, P. Kroes, S. Moore and A. Light (Dordrecht 2008), pp. 51–59.

73 Michel Foucault, *Discipline and Punish. The Birth of the Prison* (New York 1995), p. 152.

74 Alex Beattie, Out of Network: Controlling Workers by Controlling their Technology Use. *Real Life* (2018), <https://reallifemag.com/out-of-network/>, access: April 9, 2021, 9:00am.

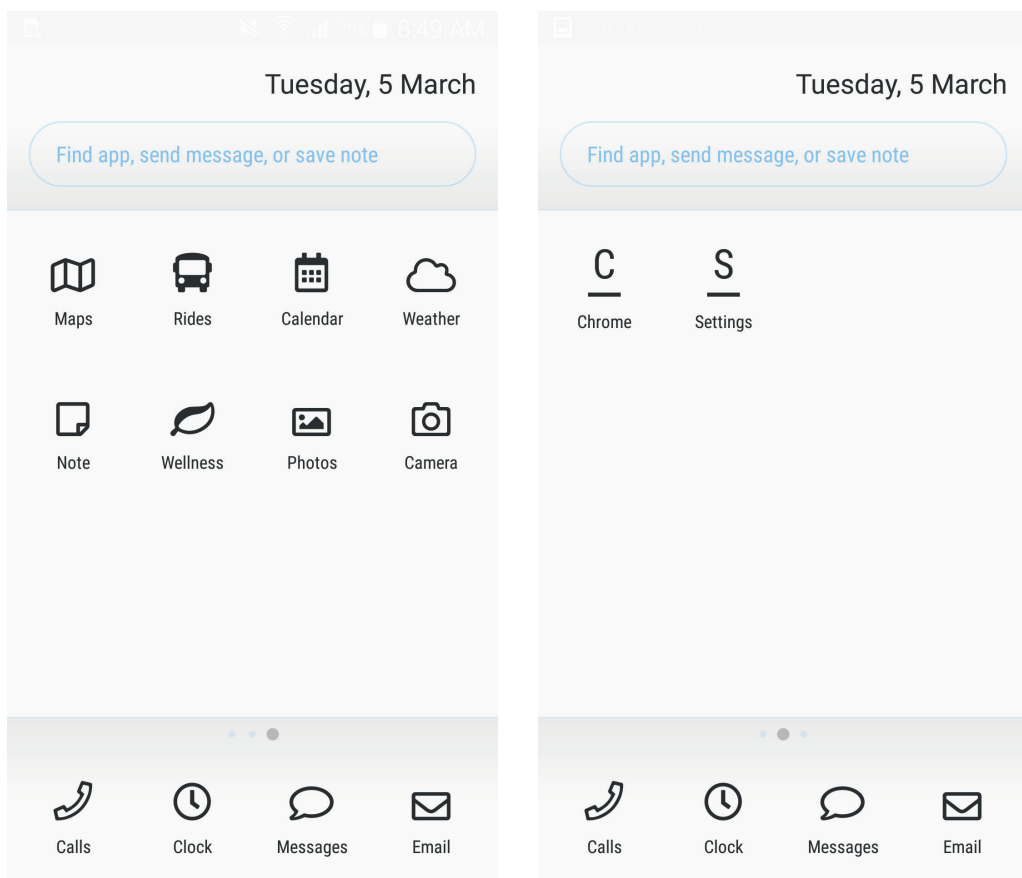


Figure 4: Tools and ‘frequently used apps’ of the *Siempo* interface.

minimalist lifestyle trend that encourages individuals to remove any items from their homes or workspaces that are neither functional nor which elicit delight.⁷⁵ The tidy app menu of *Siempo* requires users to enact a clean-out of their digital inventory, promoting an idealized form of lifestyle-minimalism.⁷⁶

⁷⁵ Marie Kondō, *The Life-Changing Magic of Tidying Up: The Japanese Art of Decluttering and Organizing* (Berkeley 2014); Newport, *Digital Minimalism*.

⁷⁶ Miriam Meissner, Against accumulation: lifestyle minimalism, de-growth and the present post-ecological condition. *Journal of Cultural Economy* 12 [3] (2019), pp. 185–200.

‘Frequently used apps’ that are deemed ‘non-distracting’ are pushed onto a second screen (Fig. 4), which includes the internet browser app *Chrome*. That *Siempo* is happy to support *Chrome* – a Google-owned app that tracks users to capture their data⁷⁷ – suggests that the tidy app menu is not designed to protect the user from surveillance activities or enhance privacy, but instead to reduce cognitive load. Researchers who examine the link between attention and

⁷⁷ Zuboff, *The Age of Surveillance Capitalism*.

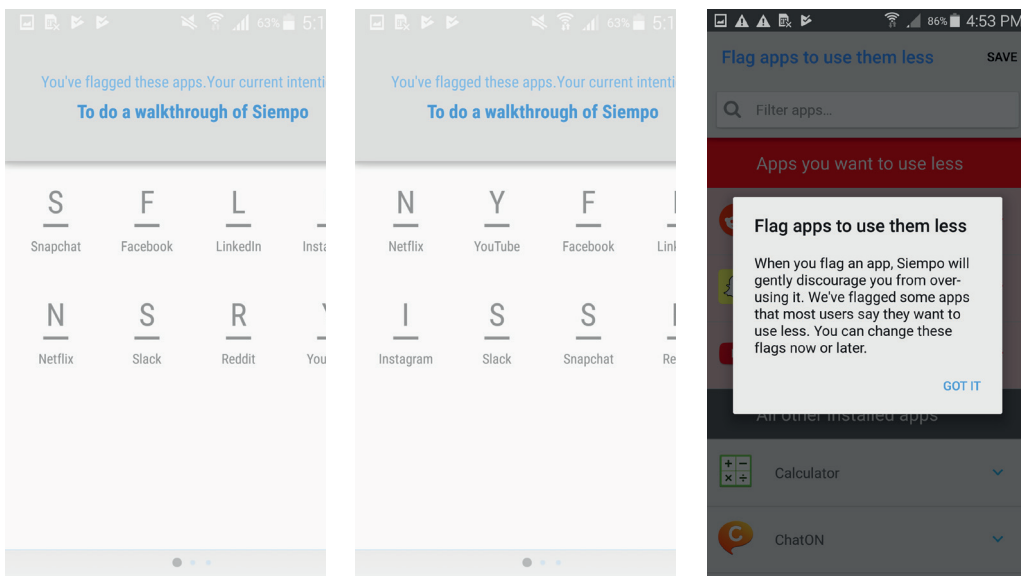


Figure 5: Flagged apps of Siempo.

wellbeing argue that a heavy cognitive load can contribute towards feelings of purposelessness and unhappiness,⁷⁸ and preclude deep cognitive thought practices that enable people to define their goals and values in the first place.⁷⁹

In an interview with Dunn, they reflect on a pivotal moment in their life was when they were travelling overseas and were disconnected from the Internet:

So when I got to India, a month after I got there I travelled by myself for a week. That was my first time really travelling solo for more than a few hours, and the first night I got to this one city and I found this hostel and I put my shit down and after 12 hours of really draining travel at night, and I was just alone. Further away

*from anyone I had ever been—no electronics, no Wi-Fi. Which was unintentional; I had them with me, they were just dead, and there was no Wi-Fi at this hostel. I had a notebook with me and I had this three-dollar hostel room. It was the first time that I had this silence and pause and this space to really examine myself and I feel like I looked down at my hands and I was like who am I? what have I been doing in the last 10 years? It was this surreal experience where I suddenly felt clear and creative and free and present and alive. It was like I was learning about myself for the first time and I had snapped out of this hypnosis of tech, that I had been under for a decade. It was like holy shit! now what? what's important to me, what happened, what do I want?*⁸⁰

Ava attributes the opportunity for deep revelation and self-reflection to being

78 Paul Dolan, *Happiness By Design: Change What You Do, Not How You Think* (New York 2014).

79 James Williams, *Stand Out Of Our Light: Freedom and Resistance in the Attention Economy* (Cambridge 2018).

80 Alex Beattie, *The Manufacture of Disconnection*, PhD thesis (Victoria University of Wellington 2020), <http://hdl.handle.net/10063/9362>, p. 140.

disconnected from the Internet. The tidy app menu attempts to offer the user the same experience by foregrounding wellness and note-taking apps to encourage them to partake in introspective activities on a regular basis, mimicking Dunn's experience in India. Apps that are considered to be the most distracting, and therefore injurious to self-discovery, are positioned the furthest away on a third screen (Figure 5).

On the 'flagged apps screen' app icons are muted, unbranded and colored a faint gray. Apps are stripped of their branding and replaced by the first letter of the app name; Snapchat become "S" and YouTube becomes "Y", and underneath the letter is the name of the application. The location of flagged apps is also scrambled, meaning the position of each app is randomized to prevent unconscious selection and usage. Every time the user returns to the screen that houses flagged apps, the position of each app changes. Users are also given an opportunity to flag any apps *Siempo* did not do for them. When flagging an app, users are given an option to either 'flag this app to use it less', 'get info or uninstall app'.

Delivering the Perfect User

As a socio-technical artefact, *Siempo* leaves behind ample material traces of its intentions—from what constitutes an intention, to what a good intention looks like, to the fundamental belief in the value of intentional behavior. Ontological Design theorists might see intentionality as evenly distributed across the three interconnected regions of the system (designer, interface, user), and argue that the user's intention finds its point of affinity in the application. However, we argue that another reading is necessary, one that takes into account the specific power relations that have been designed into *Siempo's* idealized user-subject. Despite the app's worthy cause, *Siempo's* user remains a docile subject to be brought under control and disciplined in accordance with Californian wellness ideology. In fact, *Siempo* requires the user to enter into a thoroughly designed user-position in order to be recognized, 'hailed', as a subject by the socio-technical apparatus. In this system, one cannot function as a user—whose very subjectivity is defined precisely by their use-value—without conforming to the modes of use that have been designed into the system. The result is the creation of a fixed and homogeneous subject-position, a Perfect User, for whom the fantasy-structure of intentionality masks *the ideological functioning of the app*, not to mention the broader structures of wellness capitalism itself.

We acknowledge that the user-subject is always-already a thoroughly constructed, or ‘designed’, subject position. Any recourse to a natural or unmediated form of subjectivity outside regimes of representation is, we believe, illusory. In this sense, the representation of the user by UX Design is always imbricated in the creation of the user-subject itself. However, more attention needs to be paid to the specific ideological structures that inform the design of the user position. As Bratton writes: “building a better armature for the user-subject may not seem like the most pressing design problem, but in many ways, that is exactly what it is”.⁸¹ This returns us once more to the question of intentionality, for it is important to also acknowledge that humane technologists like Dunn likely do have the best of intentions. For their part, Dunn acknowledges they are a “privileged white person”, motivated to learn more about identity politics and social justice issues.⁸² Humane technology advocates may in fact be attempting to do exactly what Bratton is suggesting: designing a better framework for the user-subject. There is much value in this, and encouragement can be drawn from the speed with which the humane technology movement has taken hold.

However, what also needs to be acknowledged is the ideological configuration of what is fast becoming the new, idealized subject: the Perfect User. The Perfect User is not an open framework

for user-subjectivity; rather, it is a normative, homogenous, and fixed subject position which instrumentalizes the operations of wellness capitalism by providing a knowable identity around which wellness products and services can cohere. In this sense, then, the Perfect User is not only a fixed subject-position but also a point of leverage that inserts the user directly into Californian Ideology, whose continued functioning is ensured by wellness capitalism.

Further, the Perfect User – as idealized subject-position – represents the re-establishment of exclusionary structures of traditional Humanism. Humanism has been critiqued by anti- and post-humanists for its hierarchical organization of categories of ‘human’. The classical ideal of ‘Man’, formulated by Protagoras as ‘the measure of all things’ and later materialized by Leonardo da Vinci as the Vitruvian Man, functioned as an “ideal of bodily perfection which doubles as a set of mental, discursive, and spiritual values”.⁸³ The Humanist model of ‘Man’ sat atop of hierarchy of all beings and upheld a specific view of what is *most* human about humanity; other beings—women, people of color, animals—were all subordinate to this figure. Da Vinci’s Vitruvian model of Man thus represented Humanism’s belief in the possibility of individual perfectibility, to which all beings could aspire. Today, technological humanism replaces the Vitruvian Man with the Perfect User, who sits atop the hierarchy of all users. Mindful, intentional, healthy,

81 Bratton, *On Software and Sovereignty*, p. 348.

82 Interview data, collected by Alex Beattie (2018).

83 Braidotti, *The Posthuman*, p. 13.

disciplined, minimalist, *designed*: these features have become the 'measure of all things' for today's aspirational user-subject.

Although the purpose of this paper is not to provide practical solutions to better design the user-subject, a 'better armature' for the user-subject could well be sought in theories of posthumanism. In posthumanism, subjectivity is considered an open, relational framework rather than a fixed identity position. A posthuman user might be considered a 'becoming-user' – a variation on what Braidotti calls a 'becoming-machine'. For the 'becoming-user', a new subject-object relationship is possible. When this kind of user engages with their smartphone it would not be as a 'body-tool', and they would not be subjected to a systematic disciplining of behavior or usage. Rather, a posthuman approach to UX Design would design into the socio-technical apparatus an equitable and respectful relationship, in which neither agent in the dyad is reduced to the other; this kind of user may be less susceptible to instrumentalization under capitalism's economic imperatives. Finally, a posthuman approach to technology interaction design would address the need for greater diversity in the ways that users are recognized, 'hailed', by socio-technical systems – which may help to avoid a situation in which a relatively small group of Northern Californian technology entrepreneurs are fast becoming the new reformers of humanity.

References

- Barbrook, Richard, and Andy Cameron**, The Californian ideology. *Science as Culture* 6 (1996), pp. 44–72.
- Beattie, Alex**, Move Slow and Contemplate Things: An App That Drops Users Out from Distracting Aspects of the Internet, in: *Making Time for Digital Lives: Beyond Chronotopia*, eds. Anne Kaun, Christian Pentzold and Christine Lohmeier (London 2020: Roman & Littlefield), pp. 137–154.
- Beattie, A.**, Out of Network: Controlling Workers by Controlling their Technology Use. *Real Life* (2018), <https://reallifemag.com/out-of-network/>, access: April 9, 2021, 9:00am.
- Beattie, A.**, *The Manufacture of Disconnection*, PhD thesis (Victoria University of Wellington 2020), <http://hdl.handle.net/10063/9362>.
- Blei, Daniela**, The False Promise of Wellness Culture. *Jstor Daily* (January 4, 2017), <https://daily.jstor.org/the-false-promises-of-wellness-culture/>, access: April 7, 2021, 9:00am.
- Bosker, Bianca**, The Binge Breaker: Tristan Harris believes Silicon Valley is addicting us to our phones. He's determined to make it stop. *The Atlantic* (November 2016), <https://www.theatlantic.com/magazine/archive/2016/11/the-binge-breaker/501122/>, access: April 7, 2021, 8:00pm.
- Buley, Leah**, *The User Experience Team of One: A Research and Design Survival Guide* (New York: Rosenfeld Media, 2013).
- Braidotti, Rosi**, *The Posthuman* (Cambridge: Polity Press, 2013).

Bratton, Benjamin, *The Stack: On Software and Sovereignty* (Cambridge, MA: MIT Press, 2015).

Center for Humane Technology, Design Guide (2019), <https://humanetech.com/designguide/>, access: April 8, 2021, 9:00pm.

Chun, Wendy Hui Kyong, *Programmed Visions: Software and Memory* (Cambridge, MA.: MIT Press 2011)

Churchill, Sue, Donna Jessop and Paul Sparks, Impulsive and/or planned behaviour: Can impulsivity contribute to the predictive utility of the theory of planned behaviour? *Social Psychology* 47 [4] (2008), pp. 631–646

Clough, Patricia, *The User Unconscious* (Minneapolis: University of Minnesota Press, 2018).

Cushman, Fiery, Deconstructing intent to reconstruct morality. *Current Opinion in Psychology* 6 (2015), pp. 97–103.

deBruler, Cindy H., *Intentional Eating: An Easy, Mindful Approach to Dietary Wellness for Increased Vitality, Weight Control, Chronic Disease Management and Stress Reduction* (Bloomington: Balboa Press, 2017)

Dolan, Paul, *Happiness By Design: Change What You Do, Not How You Think* (New York: Avery Books, 2014).

Dotson, Taylor, Technology, Choice, and the Good Life: Questioning Technological Liberalism. *Technology in Society* 34 [4] (2012), p. 327.

Dreyfuss, Henry, *Designing for People* (New York: Skyhorse, 1955)

Dunn, Halbert, What High-Level Wellness Means. *Canadian Journal of Public Health* 50 [11] (1959), pp. 447–457.

Ehrenreich, Barbara, *Natural Causes: Life, Death and the Illusion of Control* (London: Granta Books, 2018).

Eubanks, Virginia, *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor* (New York: St. Martin's Press, 2018).

Farkas, Carol-Ann, "Tons of Useful Stuff": Defining Wellness in Popular Magazines. *Studies in Popular Culture* 33 (2010), pp. 113–132

Ferrando, Francesca, *Philosophical Post-humanism* (London: Bloomsbury, 2019).

Fish, Adam, Technology Retreats and the Politics of Social Media. *triple C* 15 (2017), pp. 355–369.

Fogg, B.J., *Persuasive Technology: Using Computers to Change What We Think and Do (Interactive Technologies)* (San Francisco: Morgan Kaufmann, 2002).

Forlano, Laura, Posthumanism and Design. *She Ji: The Journal of Design, Economics and Innovation* 3 (2017).

Foucault, Michel, *Discipline and Punish. The Birth of the Prison* (New York 1995: Vintage Books).

Ganesh, Maya, The Center for Humane Technology Doesn't Want Your Attention. *The Society Pages* (2018), <https://thesocietypages.org/cyborgology/2018/02/09/the-center-for-humane-technology-doesnt-want-your-attention/>, access: April 7, 2021, 6:00pm.

Hadler, Florian and Joachim Haupt (eds.), *Interface Critique* (Berlin: Kultureverlag Kadmos, 2016).

Hadler, F., Beyond UX. *Interface Critique Journal* 1 (2018).

Halberstam, Jack, and Ira Livingston, *Post-human Bodies* (Michigan: Indiana Uni-

versity Press, 1995).

Halpern, Orit, *Beautiful Data: A History of Vision and Reason since 1945* (Durham: Duke University Press 2014).

Hartson, Rex, and Pardha Pyla, *The UX Book: Process and Guidelines for Ensuring a Quality User Experience* (Boston: Elsevier, 2012).

Harris, Tristan (@tristanharris). 2019. We need a new field of "Society & Technology Interaction" (or STX) as @aza and I have said, since "Human-Computer Interaction" is limited to individual human + machine. Getting alignment right = "Humane Social Systems"." Twitter, 9 June, 2019. <https://twitter.com/tristanharris/status/1138126884330278912>

Harris, T., Humane: A New Agenda for Tech. *The Center for Human Technology* (2019), <https://humanetech.com/new-agenda/>, access: April 7, 2021, 11:00pm.

Hesmondhalgh, David, Capitalism and the media: moral economy, well-being and capabilities. *Media, Culture & Society* 39 (2017), pp. 202–218.

Houghton, Anne, *Intentional Teaching: Promoting Purposeful Practice in Early Childhood Settings* (Melbourne: Teaching Solutions, 2013).

Hu, Tung-Hui, *A Prehistory of the Cloud* (Cambridge, MA: MIT Press, 2015).

Idhe, Don, The Disigner's Fallacy and Technological Imagination, in: *Philosophy and Design: From Engineering to Architecture*, eds. P.E. Vermaas, P. Kroes, S. Moore and A. Light (Dordrecht 2008), pp. 51–59.

Interaction Design Foundation, Usability Testing. Interaction Design Foundation (2018), <https://www.interaction-design.org/literature/topics/usability-testing>,

access: April 8, 2021, 8:00pm.

Irani, Lilly and Rumman Chowohury, To Really "Disrupt," Tech Needs to Listen to Actual Researchers. *Wired* (2019), <https://www.wired.com/story/tech-needs-to-listen-to-actual-researchers/>, access: April 7, 2021, 5:00pm

Jasanoff, Sheila, Perfecting the Human: Posthuman Imaginaries and Technologies of Reason, in: *Perfecting Human Futures, Technikzukünfte, Wissenschaft und Gesellschaft / Futures of Technology, Science and Society* (Wiesbaden: Springer 2016).

Kondō, Marie, *The Life-Changing Magic of Tidying Up: The Japanese Art of Decluttering and Organizing* (Berkeley: Ten Speed Press, 2014).

Lewis, Paul, "Our minds can be hijacked": the tech insiders who fear a smartphone dystopia. *The Guardian* (2017), <https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>, access: April 7, 2021, 8:00 pm.

Light, Ben, Jeans Burgess and Stefanie Duguay, The walkthrough method: An approach to the study of apps. *New Media & Society* 20 (2018), pp. 881–900.

Lockton, Don, *Design with Intent: Insights, Methods, and Patterns for Behavioral Design* (Cambridge: O'Reilly Media, 2017).

Luddbrarian, Be Wary of Silicon Valley's Guilty Conscience: on The Center for Humane Technology. *Librarian Shipwreck* (2018), <https://librarianshipwreck.wordpress.com/2018/02/13/be-wary-of-silicon-valleys-guilty-conscience-on-the-center-for-humane-technology/>, access: April 7, 2021, 6:00pm.

McPherson, Tara, *Feminist in a Software Lab: Design and Difference* (Cambridge, MA.: Harvard University Press, 2018)

Malle, Bertram F. and Joshua Knobe, The Folk Concept of Intentionality. *Journal of Experimental Social Psychology* 33 (1997), pp. 101–121.

Meissner, Miriam, Against accumulation: lifestyle minimalism, de-growth and the present post-ecological condition. *Journal of Cultural Economy* 12 [3] (2019), pp. 185–200.

Morozov, Evgeny, *To Save Everything, Click Here: The Folly of Technological Solutionism* (New York: Public Affairs, 2013).

Newport, Carl, *Digital Minimalism: Choosing a Focused Life in a Noisy World* (London: Portfolio, 2019).

Norman, Don, *The Design of Everyday Things* (Revised and expanded edition) (Cambridge, MA: MIT Press, 2013).

Noble, Safiya, *Algorithms of oppression: how search engines reinforce racism* (New York: New York University Press, 2018).

Perez, Sarah, Siempo's new app will break your smartphone addiction. *Techcrunch* (2018), <https://techcrunch.com/2018/05/19/siempos-new-app-will-break-your-smartphone-addiction/>, access: April 8, 2021, 8:00pm.

Purser, Ronald E., McMindfulness. How Mindfulness became the New Capitalist Spirituality. *Sexuologie* 26 (2019), pp. 179–180.

Reer, Felix, Wai Yen Tang and Thorsten Quandt, Psychosocial well-being and social media engagement: The mediating roles of social comparison orientation

and fear of missing out. *New Media & Society* (2019).

Ohtomo, Shoji, Effects of habit on intentional and reactive motivations for unhealthy eating. *Appetite* 68 (2013), pp. 69–75.

Orben, Amy, Tobias Dienerin and Andrew Przybylski, Social media's enduring effect on adolescent life satisfaction. *Proceedings of the National Academy of Sciences* 116 (2019).

Seaver, Nick, Captivating algorithms: Recommender systems as traps. *Journal of Material Culture* (2018).

Stark, Luke, Algorithmic Psychometrics and the Scalable Subject. *Social Studies of Science* 48 (2018), pp. 204–231.

Stanphill, Maggie, Optimizing for Engagement: Understanding the Use of Persuasive Technology on Internet Platforms. *US Senate Committee on Commerce, Science, and Transportation* (June 25, 2019), <https://www.commerce.senate.gov/2019/6/optimizing-for-engagement-understanding-the-use-of-persuasive-technology-on-internet-platforms>, access: April 8, 2021, 7:00pm.

Tarnoff, Ben and Moira Weigel, Why Silicon Valley can't fix itself. *The Guardian* (2018), <https://www.theguardian.com/news/2018/may/03/why-silicon-valley-cant-fix-itself-tech-humanism>, access: April 7, 2021, 11:00pm.

Turner, Fred, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (London: The University of Chicago Press, 2006).

Wajcman, Judy, How Silicon Valley Sets Time. *New Media & Society* 21 [6] (2019).

Williams, James, *Stand Out Of Our Light: Freedom and Resistance in the Attention Economy* (Cambridge: Cambridge University Press, 2018).

Willis, Anne-Marie, Ontological Designing – Laying the Ground. *Design Philosophy Papers* 13 (2006), pp. 69–74.

Zandbergen, Dorien, Fulfilling the Sacred Potential of Technology: New Edge Technophilia, Consumerism and Spirituality in Silicon Valley, in: *Things: Material Religion and the Topography of Divine Space*, eds. Birgit Meyer and Dick Houtman (New York: Fordham University Press, 2012), pp. 356–379.

Zuboff, Shoshanna, *The Age of Surveillance Capitalism: The Fight for the Future at the New Frontier of Power* (London: Profile Books 2019).