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The Smartphone: A Lacanian Stain, A Tech Killer, and an Embodiment of Radical Individualism

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Abstract

YAFR (Yet another futile rant) presents the smartphone: an unstoppable piece of technology generated from a perfect storm of commercial, technological, social and psychological factors. We begin by misquoting Steve Jobs and by being unfairly rude about the HCI community. We then consider the smartphone's ability to kill off competing technology and to undermine collectivism. We argue that its role as a Lacanian stain, an exploitative tool, and as a means of concentrating power into the hands of the few, make it a technology that will rival the personal automobile in its effect on modern society.

Author Keywords

Mobile Phone; Social Issues; Technology Policy

ACM Classification Keywords

H.5.m [Information interfaces and presentation]: Miscellaneous

Introduction

"Why should we cherish "objectivity", as if ideas were innocent, as if they don't serve one interest or another? Surely, we want to be objective if that means telling the truth as we see it, not concealing information that may be embarrassing to our point of view. But we don't want to be objective if it means pretending that ideas don't play a part in the so-

"A phone, an Internet mobile communicator, a strangle hold on modern technology... A phone, an Internet mobile communicator, a strangle hold on modern technology... A phone, Do you get it? These are not three separated devices. This is one device, and we are calling it iPhone." Steve Job's Satirical Misquotes, 2007

cial struggles of our time, that we don't take sides in those struggles."

"Indeed, it is impossible to be neutral. In a world already moving in certain directions, where wealth and power are already distributed in certain ways, neutrality means accepting the way things are now. It is a world of clashing interests — war against peace, nationalism against internationalism, equality against greed, and democracy against elitism — and it seems to me both impossible and undesirable to be neutral in those conflicts." Howard Zinn, Declarations of Independence: Cross-Examining American Ideology. [30]

This paper is a polemic. As such it makes no pretense at remaining neutral. As engineers and designers it's often not really in our interests to take sides in social and political debate. Our livelihoods depend on people giving us money to build things. Within HCI this has led to a passive acceptance of a middle class aspirational world where technology assists and entertains us. For example:

"Let's age Tommy to 3 years old. Tom and Sara take him skiing for the first time. Tommy's SmartPhone, now version 23.0, downloads the 'Virtual Skiing Coach,' which uses accelerometers sewn into Tommy's clothing to sense his posture and then offer suggestions for maintaining balance; when it foresees an impending collision, it quickly blurts out instructions on how to stop." Generation Smartphone[25]

Is this it? Is this the best we can do with all our technology and resources? How about making the world a better place? Has Candy Crush made the world a better place? Has it? Can you stop playing Candy Crush for a minute and answer me? Oh forget it. The smartphone, just like the personal automobile, has a big impact on society for good and ill. However, professional organisations who represent

systems are reluctant to take a position on how this technology is used or developed. SIGCHI has been described as "scrupulously apolitical" [11] p.57, whereas IFIP, the organisation that organises the yearly Interact conference in HCI, proudly describes itself as "The leading multinational, apolitical organization in Information & Communications Technologies and Sciences." http://ifip-tc13.org/about-us/ However, as Zinn notes, neutrality itself is a position, in general one supporting the status quo. Therefore, whereas one may laud the difficult balancing act required to satisfy the many interested parties in HCI, there may also be some discomfort with the extent the HCI community may seem to distance itself from the political and social consequences of the technology it researches, builds and promotes. It would be extreme to describe the HCI community as politically supine, playing lip service to social good while queuing up to take cash from commercial and government interests, but an outsider could get this impression. For example, the participatory body, Computer Professionals for Social Responsibility (CPSR) dissolved in 2010 through falling membership, while Ben Shneiderman, one of HCI's heavy hitters with over eleven thousand citations for his seminal work, "Designing the User Interface", received only nineteen citations (yes 19) for his article "Human Values and the World: A Declaration of Responsibility." Meanwhile the impact of commercial HCI is seen everywhere, both in terms of big sponsors at conferences, and as millions, if not billions, of dollars of investment used to develop devices and services. There is an irony in academic work that the bigger the investment by commercial companies, the less impressive academic research, with extremely limited resources and manpower, becomes. Furthermore, in order to make best use of resources, academic research work in an active commercial climate often starts with commercial products and explores how they may be adapted or how they

the technologists who are building and developing these



Figure 1: Neutrality itself is a position.

are used. Thus a large proportion of HCI research work is based on, or directed to specific commercial products such as smartphones and games consoles. In effect, research engineers, have blindly attached themselves to this juggernaut of progress and there is little evidence they are aware, or care, where it might lead.

So wake up! The world is changed by technology. It's time to get off the fence. If you think smartphones will lead to a utopian information sharing society then make that case, if you think they are an evil scab representing a commercial strangle hold on Western society (and shortly all society) then let's hear you say it. In this paper we explain why the smartphone is one of the most important pieces of technology to affect our world since gun powder, the mechanical timepiece, and the petrol engine. We then consider its affect on complimentary and competing technology, and conclude by arguing that the smartphone is the ultimate technology to support an American flavour of radical individualism, and a means of concentrating power into the hands of the few.

Almost all, new, high impact technology is accompanied by a shrill warning of doom: The novel, a product of cheap and ubiquitous printing, will undermine the morality of young ladies; TV, then video, then computer games, then social media, will corrupt the innocent, undermine society and lead to a dystopia, and so forth. Such warnings are often based on the claim that this or that technology is fundamentally different from technology that has gone before. Such differences are always a matter of degree, a mechanical time piece is similar to a sundial but allowed time keeping to become universal and pervasive, video was similar to TV but removed the control of what was seen and when from the broadcasters, a smartphone is similar to a desktop but you can use it while mobile and use it as a telephone.

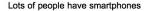
Key to the impact of technology is its role within society, its interaction with commercial and political forces, and the relationship individuals have with the technology.

The smartphone is special because everyone has one (or will have one), it's the dominant form of interpersonal communication, and it is the dominant means of accessing data services. These services are not built by a benevolent set of magicians living in a fairy kingdom. They are built for the primary means of commercial exploitation. You are a data point and you are valuable. This is not the desktop you used to log onto once a week to write a letter or play a computer game, this device is with you all your waking hours recording everything about you.

Commentators such as Morozov[10, 18] and Naughton[19] elegantly articulate the importance of data ownership as well as critiquing the influence of Silicon Valley, and its offerings, on everyday lives and culture. Morozov in particular is well known for reprimanding the drive to solve problems - using arbitrary technologies - that do not actually exist, even calling out work published at CHI for this (i.e. "Bincam" in Thieme et al 2012[27]). A more thoughtful, and constructive, treatment of this problem space is given by Raghavan[23] in his discussion of how Sevareid's Law ("the chief source of problems is solutions") can provide useful motivation to understand current technology design. However the importance of the device that is used to provide data to, and extract data from the individual, is underestimated. The smartphone is powerful, not just because of this role as a gateway, nor because of the commercial power behind it, but **also** because it has a critical psychological hold on its users.

"Being the richest man in the cemetery doesn't matter to me. Making Apple the most powerful company in the world³ ... that's what matters to me." Steve Job's Satirical Misquotes

³Based on (Wonderful == Making Apple the most powerful company in the world). Otherwise hard to interpret what something wonderful was for Steve Jobs. iTunes? Seriously?



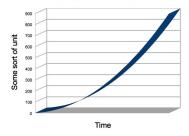


Figure 2: A line showing something getting bigger fast. This illustrates that all humans will be given a smartphone at birth by 2046.

The Commercial Importance of the Smartphone

The smartphone market is big, and getting bigger. Normally it is customary here to show a graph going up, to show sales of desktops going down, and to come up with staggering statistics like X billion smartphones will be sold by XXXX or X smartphones ship every minute etc. (See Figure 2). But you have seen these all before and it still doesn't really sink in. Besides this isn't the key to the commercial power of the smartphone. If they had to, companies like Apple would sell you one for nothing (just as mobile phone providers give away Android phones). Sure they want to make money out of selling you a smartphone, but that isn't where the true value lies. The smartphone is a direct connection with the user. The smartphone controls most of the information, media and commercial transactions a user has with the Internet.

If a company can sit at the other end of this connection and have complete control of all transactions they can make massive profits. This is what iTunes is, this is what Google search is, this is what the Amazon shop is. It's this direct relationship that makes Facebook and Twitter valuable, all those users, but remember, all mediated by the smartphone. It is this battleground that Apple, Google and Amazon are fighting over. Take Siri for example. As Aylett et a/[1] point out, focusing on the technology can ignore the commercial drivers behind it. It's not how wonderful Siri is or how often it is used that matters. Siri is a means of controlling the direct channel to the user. Imagine Google's reaction must have been to guery Siri and not see any of their ads. Why have Amazon tried to combat the smartphone with the Kindle Fire and the Echo? Because if you ask Siri to buy the new single by Beyonce it's not going to buy it from Amazon.

But we have seen nothing yet. Media streaming services

have already killed off the high street music store, and the smartphone has pretty much killed the iPod[28]. In the future credit and debit cards can be replaced with the smartphone, car information systems can be replaced by the smartphone, remote controls for household appliances can be replaced by the smartphone. The trick is to lock users in to a specific system, and skim revenue from all these new activities. Currently tech companies like Apple are dwarfed in revenue by companies like Walmart, oil and gas are still the big revenue generators, but the smartphone offers unparalleled opportunities to control and make money out of a users everyday behavior. That is why Apple is valued at over \$700 billion. Just as credit and debit cards began as a convenience to avoid carrying cash, to manage monthly expenditure, now it's very hard to live without a credit or debit card in modern western society. It is only a matter of time until having a smartphone will be a requirement for our day to day lives (and for many users they already are).

The Psychological Importance of the Smartphone

"Cluley and Dunne (2012) argued that a psychoanalytic account of commodity fetishism is needed to contend with the contradictory ways people consume. Retreading Marx with Freud, they conclude that narcissism rather than fetishism is truly what is at stake because the commodity form is not merely a masking of social relations of production; it is also, if not more so, a means of identification and self-aggrandizement." p.114, Reyes et al[24]

We can argue that important commercial factors drive the ongoing development and take up of the smartphone, but it is our psychological relationship with the technology that makes it so powerful. Reyes et al[24] use a Lacanian psychoanalytical framework to explore our use of the smartphone. Despite using a lot of difficult words and giving the impression of a late night intellectual cultural program on

AN APPLE BOARD MEET-ING BACK IN 2005

STEVE JOBS: You know, everybody has a cell phone, but I don't know one person who likes their cell phone. I want to make a phone that people love.

NUMBER 5: Oh, I like my Nokia 6310, its easy to make calls, stays charged for 5 days and is almost indestructible. AAARGGHHH... Number 5 is electrocuted, his board room chair sinks below the floor and then reappears empty.

- Steve Job's Satirical Misquotes



Figure 3: The smartphone connects us to another realm, as such it transcends technology and becomes a gateway.

French TV, the approach offers us some insights into why the smartphone is so powerful. From Lacan they use the term *look* and the term *gaze*. Critical is their contention that the smartphone is more than just another fetishised commodity¹. "In brief, our position is that the look involves phenomena of self-presentation and copresence, seeing and being seen as a social subject in real, brick-and-mortar space. The gaze, on the other hand, entails disruptive moments of disengagement with that first domain of the look. The former level of analysis is most congruent with Marxist conceptions of commodity fetishism, whereas the latter level of analysis is necessary for contending with cell phones as more than just another fetishized commodity and coming to terms with their unique position as communications technologies embedding consumers within new mobile media ecologies." - p.115, Reves et al[24]

Our interpretation of this is that the way the smartphone controls our consumption of media; mass, personal and in terms of social interactions, makes the device special. The smartphone connects us to another realm, as such it transcends technology and becomes a gateway, like a mirror, to the *other*, as well as the device being a traditional commodity. This affects the way we use and relate to the device. As an ethnographic study Reyes et al[24] relate this psychological framework to concrete observations, for example:

"I am immediately struck by the two ladies sitting diagonally across from me. They are eating salads, both are dressed nicely, hair neat. Approximately 35 years of age. They are clearly involved in a very active conversation—faces are animated, hands are waving back and forth. They both have

mobile phones present. Lady #1 has the phone resting on the table next to her plate of food. Lady #2 (the most animated/hand waving of the two) has her mobile phone in her hand. She never uses it or looks at it, but it remains waving around in her hand the entire time. At one point, she passes it into the other hand—but never, ever letting go..." p.115:6, Reyes et al[24]

The tension between the smartphone as a normal commodity (the look), in contrast with it's role as a gateway to the other (the gaze), can help explain our relationship with the device. Reyes et al[24] list conflicting behaviors caused by this tension: Individuals customise there device but must conform to the constraints of a mass produced device; They stay physically connected to their smartphones, even when disconnected from the information the smartphone is designed to access; Individuals are concerned with the impact the device has on their privacy but use and display the smartphone very publicly; Individuals exhibit discontinuous behavior, alternating between engaging with technology and the people around them; Individuals find themselves disregarding established social norms in order to use their devices.

The smartphone, as a gateway to the *other* stains the environment (not necessarily in a negative way), but in a way that **cannot be ignored**. This is key to the psychological importance of the smartphone and leads to enormous social and personal impact much of which is extensively examined in modern literature. For example from the effect of the smartphone on feelings of isolation[22], the creation of digital identities [20], to the etiquette of sharing a smartphone (or not) [13]. As with the wrist watch and the automobile, the smartphone extends from the commercial deeply into the psychological.

¹A Marxist term, where the subjective, abstract aspects of economic value are transformed into objective, real things that people believe have intrinsic value. If there's one thing in this world that is a fetishised commodity it's the smartphone.

Your time is limited, so don't waste it living someone else's life. Don't be trapped by dogma – which is living with the results of other people's thinking. Unless, of course, it's my life and my dogma and you work at Apple. - Steve Job's Satirical Misquotes



Figure 4: Apps are the ultimate expression of laissez-faire capitalism.

Radical Individualism

"To contemporary Americans, being an individualist is not only a good thing; it is a quintessentially American thing." p.3, Oyserman et al[21]

Within the US, Individualism, and the conflict between individualism and collectivism is innately political. The term radical individualism is a term used widely but without a strict definition. It can be understood as individualism plus and associated with right-wing libertarianism, laissez-faire capitalism, and the writings of Ayn Rand who advocated the complete deregulation of business and finance and opposed any form of state welfare.

Here we need to distinguish between concepts like the cult of the individual – its bad to have the state oppress individuals because everyone matters – and radical individualism – Its all about me, and everything important and useful comes from individuals with the vision making it all happen (unless their strength is sapped by red tape and no-hopers supported by state handouts).

Barbrook and Cameron[3] coin the term *The Californian Ideology* as Bay Area political philosophy derived from technology utopianism, 60s counter culture, ideas from radical individualism and fusing both new left and new right ideologies. "The widespread appeal of these West Coast idealogues isn't simply the result of their infectious optimism. Above all, they are passionate advocates of what appears to be an impeccably libertarian form of politics - they want information technologies to be used to create a new 'Jeffersonian democracy' where all individuals will be able to express themselves freely within cyberspace... Their utopian vision of California depends upon a wilful blindness towards the other - much less positive - features of life on the West Coast: racism, poverty and environmental degradation." p.45[3]. Barbrook and Cameron are extremely critical of the

thinking and motivations behind this Californian Ideology. They argue "The Californian Ideology, therefore, simultaneously reflects the disciplines of market economics and the freedoms of hippie artisanship. This bizarre hybrid is only made possible through a nearly universal belief in technological determinism." p.49[3]. Streeter[26] argues that films such as Steve Jobs are driven by this sort of romantic individualism. Distorting the reality of Bay Area technologies with "passionate masculine heroes rebelling against tradition, tales of revelation based on inner experience" [26].

Dave Eggars in his novel *The Circle*[8], explores the relationship between such Californian radical individualism, and the concentration of power into an ever decreasing set of corporations, through the pervasive use of social media and technology. In this darkly humorous critique of the Bay Area tech scene, naive desires by engineers to solve social problems are hi-jacked by vested interests, while ruthlessly undermining and rejecting traditional social values and customs. "It's the usual utopian vision. This time they were saying it'll reduce waste. If stores know what their customers want, then they don't over produce, don't over ship, don't have to throw stuff away when it's not bought. I mean, like everything else you guys are pushing, it sounds perfect, sounds progressive, but it carries with it more control, more central tracking of everything we do." - Dave Eggers, The Circle. Eggars focuses on social media, but without the smartphone, social media is a location and time constrained pastime made up of cat pictures and blogs - with a smartphone it integrates completely with a user's life and we can have pictures of police beating people up, and Twitter. "Nine out of ten of the 1.55 billion people a month who use Facebook access it on a mobile device at least part of the time"[17]



Figure 5: "the cell phone as a signifying apparatus cannot be reduced to the hunk of matter comprising the artifact itself. It is more than that." - Ian Reyes

Within this context, the smartphone is a political tool; something that fights authoritarianism such as in the Arab Spring (Well, okay Egypt is looking pretty unsprung now but at the time the smartphone was heralded as a tool that would change political landscapes forever); something that can regenerate local communities with ideas such as time banking; or in contrast fight unionised labour and organised capitalism for example with Uber and AirBnB. But the true contribution of political change that we derive from the smartphone is the ability to monetise everything (monetise by the second, by the kilobytes, by the individual) and know everything about individuals (their interests, their movements, their routines, their friends and contacts).

De Unamuno[6] offers a detailed exploration of the political impact of the smartphone from a Marxist perspective in order to "understand how the use of contemporary technology and smartphones in particular, enable an advanced form of exploitation, where smartphones are not only used to extract surplus value from workers' personal time-space, but also marketed as essential to the workers' cultural identities, something the workers must have but must not question." p.9–10[6]

However, the smartphone has also been promoted as something that can subvert formal power structures, encourage local community engagement and support the disenfranchised. It has been actively argued that the smartphone is a force for social good.

For example Han et al[12] argues that "mobile technology suggests new opportunities for community informatics". In this work they use two community web services, one focused on digital cultural heritage, the other on local volunteer efforts using time banking. Han et al's work show how "mobile technology transcends the limitations of time and place, it expands the ways of accessing and interacting with

local community information and lowers the barrier to participation". We applaud the work of researchers attempting to explore the use of technology for social good. However, believing that smartphones offer a route to achieving this goal is mistaken. Take Han et al's[12] study on time banking using hOurworld. If we find the Penn time bank we discover 189 current members with a total of 58 exchanged hours. The total staff and student population of Penn is approximately forty thousand so pretty much no one at UPenn uses time banking. We see this same story again and again within HCl Academic research: the potential for social good is outlined, a study is conducted, the results are promising, no take-up occurs, no interest is shown by commercial players.

There's an irony that a device ostensibly for communicating with others is all about the person using it. The smartphone rivals the personal automobile as an expression of the self. You can't share them, they store all your personal data (cleverly in the cloud so you are locked into a specific manufacturer), and they are like little mirrors that you can stare dead eyed into and hope to see a better more aspirational you instead of a sad wage slave stuck in a soul destroying commute. Uber and AirBnB are the ultimate expressions of a laissez-fair system. By using the smartphone to monetise time by the minute and services by the kilobyte we can dispose of regulation, unionisation, collectivism in general. The phone is yours and it empowers you as an individual. However, the politics of the individual is, by it's nature, a politics that attempts to deny the existence of politics. It's not about the group, it's not about society, it's not about justice, its about you. In a dazzling slight of hand powerful organisations and interests convince users that only their individualism matters, thus disempowering the powerless, and generating vast quantities of personal data that empower the powerful.

alt.chi: Confronting Power in HCI

If I'd asked users what they wanted they would have asked for a smaller computer. Which they did so we made one. - Steve Job's Satirical Misquotes

The Smartphone as a Tech Killer

Dominant technologies have a significant impact on related fields; steam power was extinguished by the combustion engine, the typewriter by the desktop computer, the telegram by the telephone. Sometimes this is progress, but sometimes, like the effect of the personal automobile on pedestrian access, or cycling, the dominant technology can also impede progress. The smartphone is dominant for three reasons; 1. The commercial, psychological and political drivers behind the technology are very powerful 2. The ability of the smartphone to absorb multifunctionality, and 3. The ability for devices to become peripherals of the smartphone. The iPod was one of the first casualties[28]. The desktop is pretty much the second attacked on two sides by tablets as well as smartphones. Aylett and Quigley[2] argue that the field of pervasive computing has been subsumed in many ways by the smartphone, and strongly argue that the smartphone, although ubiquitous, is not ubiquitous computing because "Devices have to be sold as personal, beautiful toys that sit squarely in the centre of your attention." p.433,[2]. The potential for wearables is also heavily compromised by the smartphone. Google Glass was presented as a new way to engage with computing, but apart from being a massive mistake in terms of understanding how people outside the Bay Area saw technology 2, why use something like Google Glass when most of the functionality is already on your beautiful smartphone? The Apple watch of course **requires** an iPhone to work. Do you really think Apple want to sell a product to replace the iPhone? Buy another product to go with your smartphone sure, make sure both have to be up to date and you have even more reasons to throw out a 2 year old phone, but replace? Are you crazy? Meanwhile the smartphone is likely to subsume the credit card, audio storage

devices, in car entertainment, sat navs, and with the right peripherals fitness devices.

A lot of designers implicitly understand the danger of the smartphone gobbling up anything new they design. With a significant number of project intentionally **not** using an app to realise the design objectives. For example the datacatcher project[7] where bespoke technology was manufactured rather than sticking some software on a smartphone. The smartphone is the new QWERTY keyboard, its going to be around for a long, long time.

Conclusion

So the world will move onwards and no one will care how many Facebook posts you made, or what you retweeted, or how groovy your choice at Spotify. You will get old and you will die. The data you generate over your life staring at your beautiful little technological mirror will be gobbled up by machine learning algorithms dedicated to maximising profit.

Currently the dominant response to this within the HCI community is to make a prettier mirror. This is in direct contrast to the many researchers in the humanities producing incisive comment (if in a rather wordy and over florid style for us engineers) on modern technology.

We acknowledge that the CHI community increasingly draws upon literature, the humanities as well as the social, political and communication sciences in its efforts to understand the current— and future — societal impact of interactive technology. However, these efforts are all too often relegated to the alternative venue of alt.CHI (for example see Kirman et al [15], Baumer et al [4]) or squirreled away as sexy sounding — but all too niche — design fiction workshops (for example see Linehan et al [16]). In perhaps the most relevant main track CHI paper to our rant Harmon and Maz-

²Sorry Google is not cool anymore.

manian [14] present 'stories' of smartphone discourse highlighting approaches to the device's integration as well as deliberate DIS-integration in everyday life, and ask for further provocations in this area: a call we are happy to oblige. We also draw attention to other work (e.g. see Baumer et al [5]) which explores both deliberate and circumstantial 'non-use' of smartphones and related technology, and of course we readily acknowledge that our paper here focuses on smartphone use by a relatively rich, wealthy and techliterate populous whereas in other contexts this use can be viewed as a luxury (see Wyche et al [29]) or sometimes culturally problematic [9].

Thus, in the context of the CHI 2016 theme, *CHI4Good*³ with the focus on the "under-served, under-resourced, and under-represented", we hope this paper may encourage a few CHI attendees to read these commentaries and perhaps incorporate or cite them in their subsequent research output. We hope that our underlying political position may provoke engineers who disagree with us to do so openly. Politics, is after all, very much about debate. However, this so called neutral, apolitical position of HCI in the face of massive potential social upheaval and change is just not tenable. We may not be able to do much about the social impact of our technology, but if we can't then who can?

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 $^{^3}$ In case you are unsure $Good \neq Forever$ in this context but means Good as in social good, honestly, we're not making it up, and it's not a typo of CHI\$Good. we checked.

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Commentary

For alt.chi paper
The Smartphone: A Laconian
Stain, a Tech Killer, and an
Embodiment of radical
Individualism, by Aylett and
Lawson.

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The HCI Truth-o-Meter rates this paper Half True, and that is dangerous for us all. The world of Aylett and Lawson is one of radical individualism propagated by the technology of our age: the Apple smartphone. HCI, Aylett and Lawson rant, has done all but fed into creating this world by proliferating technological determinism. While a continuous critical engagement with HCI's entanglements in dominant views of technology is crucial, this paper accomplishes all but the opposite. We agree with the authors that their paper is a rant, aimed at controversy for the sake of controversy. A wise decision might have been to leave it at that, and walk away frustrated by a tendency that continues strong in HCI, i.e. to ignore the field's critical turn (Bardzell, J. 2016. A Dark Pattern In Humanistic HCI. Interactions Blogs). And yet, we felt the need to comment, as there are no innocent positions. When one rants, one still makes an audience. To rant means to "talk loudly and in a way that shows anger, to complain in a way that is unreasonable." Loud and unreasonable, this rant is fodder to those who undermine HCI's critical turn. Feminist HCI, reflective design, postcolonial computing, multi-sited design, values in design, politics of design, to name but a few, have all contributed a critical sensibility towards how HCI proliferates dominant views of technology. In its ignorance of HCI's critical turn that has provided approaches that neither simply condemn design nor propagate naïve tech utopianism, this paper throws us back into the grip of old binaries: design vs. criticality, intervention vs. cultural nuance, practice vs. theory. Similarly troubling is the authors' lack of reflexive engagement with their own positionality ironic, given their criticism of HCI's lack of reflexivity. The paper draws solely on a Western understanding

of technology; the smartphone is portrayed as taking shape through two single bodies: the (Apple) industrial designer and the user. The laboring hands that assemble devices for consumption on a factory floor somewhere in Asia or Sub-Saharan Africa are rendered as invisible as these regions' designers. "The smartphone rivals the personal automobile as an expression of the self," the paper concludes. The comparison with the automobile could have been productive, if the authors had followed through; the making of the car and the mobile phone unfold not only through the making of consumers, but also drastic restructurings of work from Fordism to outsourcing, automation and digital labor. Just as the car haunts the American dream of middleclass, so the mobile phone haunts the knowledge economy and the idea that information technology would lead to the elimination of the factory. The authors feed into what they critique: a dominant view of tech innovation that equates it with Silicon Valley, masculinity, and Western capitalism.

The paper itself is not a critique of HCI but highlights why so much of HCI fails to engage its critical turn; because it's easy to launch one critique after another. By ignoring prior work one can more easily stake out new territory: the person who brought Lacon to HCI, the paper we now need to cite when we write about smartphones. The sensationalism of the rant will generate conversations at the conference much like a Fox News headline, a mode of "scholarship" that is unlikely to have the kind of impact in education, technology and society that we should have as the technical and social make each other in ever more complex ways.