# 10 The Ground of First Struggle

> Technology means constant social revolution.
>
> Marshall McLuhan, *The Mechanical Bride*

Language has a curious way of sticking around. We still say "the sun rises," even though we know it is we who turn into the sun. So it shouldn't surprise us that we've inherited the largest, most powerful, and most centralized infrastructure for shaping thought and behavior in human history, but we still haven't gotten around to calling it what it is. We persist in describing these systems as "information" or "communication" technologies, despite the fact that they are, by and large, designed neither to inform us nor help us communicate – at least in any way that's recognizably human. We beat our breasts about "fake news" and other varieties of onerous content because it's easier than taking aim at the fundamental problems with the medium itself: that it's an answer to a question no one ever asked, that its goals are not our goals, that it's a machine designed to harvest our attention wantonly and in wholesale.

The proliferation of ubiquitous, portable, and connected general-purpose computers has enabled this infrastructure of industrialized persuasion to do an end run around all other societal systems and to open a door directly onto our attentional faculties, on which it now operates for over a third of our waking lives. In the hands of a few dozen people now lies the power to shape the attentional habits – the *lives* – of billions of human beings. This is not a situation in which the essential political problem involves the management or censorship of speech. The total effect of these systems on our lives is not analogous to that of past communications media. The effect here is much closer to that of a religion: it's the installation of a worldview, the habituation into certain practices and values, the appeals to tribalistic

impulses, the hypnotic abdication of reason and will, and the faith in these omnipresent and seemingly omniscient forces that we trust, without a sliver of verification, to be on our side.

This fierce competition for human attention is creating new problems of kind, not merely of degree. Via ubiquitous and always connected interfaces to users, as well as a sophisticated infrastructure of measurement, experimentation, targeting, and analytics, this global project of industrialized persuasion is now the dominant business model and design logic of the internet. To date, the problems of "distraction" have been minimized as minor annoyances. Yet the competition for attention and the "persuasion" of users ultimately amounts to a project of the manipulation of the will. We currently lack a language for talking about, and thereby recognizing, the full depth of these problems. At individual levels, these problems threaten to frustrate one's authorship of one's own life. At collective levels, they threaten to frustrate the authorship of the story of a people and obscure the common interests and goals that bind them together, whether that group is a family, a community, a country, or all of humankind. In a sense, these societal systems have been short-circuited. In doing so, the operation of the will – which is the basis of the authority of politics – has also been short-circuited and undermined.

Uncritical deployment of the human-as-computer metaphor is today the well of a vast swamp of irrelevant prognostications about the human future. If people *were* computers, however, the appropriate description of the digital attention economy's incursions upon their processing capacities would be that of the distributed denial-of-service, or DDoS, attack. In a DDoS attack, the attacker controls many computers and uses them to send many repeated requests to the target computer, effectively overwhelming its capacity to communicate with any other computer. The competition to monopolize our attention is like a DDoS attack against the human will.

In fact, to the extent that the attention economy seeks to achieve the capture and exploitation of human desires, actions,

decisions, and ultimately lives, we may view it as a type of human trafficking. A 2015 report funded by the European Commission called "The Onlife Manifesto" does just that: "To the same extent that organs should not be exchanged on the market place, our attentional capabilities deserve protective treatment ... in addition to offering informed choices, the default settings and other designed aspects of our technologies should respect and protect attentional capabilities." The report calls for paying greater attention "to attention itself as a [*sic*] inherent human attribute that conditions the flourishing of human interactions and the capabilities to engage in meaningful action."[1]

Today, as in Huxley's time, we have "failed to take into account" our "almost infinite appetite for distractions."[2] The effect of the global attention economy – that is, of many of our digital technologies doing precisely what they are designed to do – is to frustrate and even erode the human will at individual and collective levels, undermining the very assumptions of democracy. They guide us and direct us, but they do not fulfill us or sustain us. These are the "distractions" of a system that is not on our side.

These are our new empires of the mind, and our present relation with them is one of attentional serfdom. Rewiring this relationship is a "political" task in two ways. First, because our media are the lens through which we understand and engage with those matters we have historically understood as "political." Second, because they are now the lens through which we view *everything*, including ourselves. "The most complete authority," Rousseau wrote in *A Discourse on Political Economy*, "is the kind that penetrates the inner man, and influences his will as much as his actions" (p. 13). This is the kind of authority that our information technologies – these technologies of our attention – now have over us. As a result, we ought to understand them as the ground of first political struggle, the politics behind politics. It is now impossible to achieve any political reform worth having without first reforming the totalistic forces that guide our attention and our lives.

Looking to the future, the trajectory is one of ever greater power of the digital attention economy over our lives. More of our day-to-day experience stands to be mediated and guided by smaller, faster, more ubiquitous, more intelligent, and more engaging entry points into the digital attention economy. As Marc Andreessen, an investor and the author of Mosaic, the first web browser I ever used, said in 2011, "Software is eating the world."[3] In addition, the amount of monetizable attention in our lives is poised to increase substantially if technologies such as driverless vehicles, or economic policies such as Universal Basic Income, come to fruition and increase our amount of available leisure time.

Persuasion may also prove to be the "killer app" for artificial intelligence, or AI. The mantra "AI is the new UI" is informing much of the next generation interface design currently under way (e.g. Apple's Siri, Amazon's Alexa, or Google Home), and the more that the vision of computing as intelligent, frictionless assistance becomes reality, the more the logic and values of the system will be pushed below the surface of awareness to the automation layer and rendered obscure to users, or to any others who might want to question their design. Already, our most common interactions with some of the most sophisticated AI systems in history occur in contexts of persuasion, and the application of AI in so-called "programmatic" advertising is expected to accelerate.[4] One major reason for this is that advertising is where many of the near term business interests lie. Much of the cutting edge of AI research and development now takes place within the walls of companies whose primary business model is advertising – and so, having this existing profit motive to serve, it's only natural that their first priority would be to apply their innovations toward growing their business. For example, one of the first projects that Google's DeepMind division put their "AlphaGo" system to work on was enhancing YouTube's video recommendation algorithm.[5] In other words, it now seems the same intelligence behind the system that defeated the human world champion at the game Go is sitting on the other

side of your screen and showing you videos that it thinks will keep you using YouTube for as long as possible.

Yet the affinity between advertising and AI extends well beyond the incidental fact that advertising is the current business context in which much leading AI development today occurs. In particular, the problem space of advertising is an extremely good fit for the capabilities of AI: it combines a mind-boggling multiplicity of inputs (e.g. contextual, behavioral, and other user signals) with the laserlike specificity of a clear, binary goal (i.e. typically the purchase, or "conversion," as it's often called). Perhaps this is why games have been the other major domain in which artificial intelligence has been tested and innovated. On a conceptual level, training an algorithm to play chess or an Atari 2600 game well is quite similar to training an algorithm to advertise well. Both involve training an agent that interacts with its environment to grapple with an enormous amount of unstructured data and take actions based on that data to maximize expected rewards as represented by a single variable.

Perhaps an intuition about this affinity between advertising and algorithmic automation lay behind that almost mystic comment of McLuhan's in *Understanding Media*:

> To put the matter abruptly, the advertising industry is a crude attempt to extend the principles of automation to every aspect of society. Ideally, advertising aims at the goal of a programmed harmony among all human impulses and aspirations and endeavors. Using handicraft methods, it stretches out toward the ultimate electronic goal of a collective consciousness. When all production and all consumption are brought into a pre-established harmony with all desire and all effort, then advertising will have liquidated itself by its own success.[6]

It's probably not useful, or even possible, to ask what McLuhan got "right" or "wrong" here: in keeping with his style, the observation is best read as a "probe." Regardless, it seems clear that he's making two

erroneous assumptions about advertising: (1) that the advertising system, or any of its elements, has "harmony" as a goal; and (2) that human desire is a finite quantity merely to be balanced against other system dynamics. On the contrary, since the inception of modern advertising we have seen it continually seek not only to fulfill existing desires, but also to generate new ones; not only to meet people's needs and demands, but to produce more where none previously existed. McLuhan seems to view advertising as a closed system which, upon reaching a certain threshold of automation, settles into a kind of socioeconomic homeostasis, reaching a plateau of sufficiency via the (apparently unregulated) means of efficiency. Of course, as long as advertising remains aimed at the ends of continual growth, its tools of efficiency are unlikely to optimize for anything like sufficiency or systemic harmony. Similarly, as long as some portion of human life manages to confound advertising's tools of prediction – which I suggest will always be the case – it is unlikely to *be able* to optimize for a total systemic harmony. This is a very good thing, because it lets us dispense at the outset with imagined, abstracted visions of "automation" as a generalized type of force (or, even more broadly, "algorithms"), and focus instead on the particular instances of automation that actually present themselves to us, the most advanced implementations of which we currently find on the battlefield of digital advertising.

Looking forward, the technologies of the digital attention economy are also poised to know us ever more intimately, in order to persuade us ever more effectively. Already, over 250 Android mobile device games listen to sounds from users' environments.[7] This listening may one day even extend to our inner environments. In 2015, Facebook filed a patent for detecting emotions, both positive and negative, from computer and smartphone cameras.[8] And in April 2017, at the company's F8 conference, Facebook researcher Regina Dugan, a former head of DARPA (the US Defense Advanced Research Projects Agency), took the stage to discuss the company's development of a brain–computer interface.[9]

> Dugan stresses that it's not about invading your thoughts – an important disclaimer, given the public's anxiety over privacy violations from social network's [*sic*] as large as Facebook. Rather, "this is about decoding the words you've already decided to share by sending them to the speech center of your brain," reads the company's official announcement. "Think of it like this: You take many photos and choose to share only some of them. Similarly, you have many thoughts and choose to share only some of them."[10]

The company refused to say whether they plan to use information collected from the speech center of your brain for advertising purposes.

We face great challenges today across the full stack of human life: at planetary, societal, organizational, and individual levels. Success in surmounting these challenges requires that we give the right sort of attention to the right sort of things. A major function, if not the primary purpose, of information technology should be to advance this end.

Yet for all its informational benefits, the rapid proliferation of digital technologies has compromised attention, in this wide sense, and produced a suite of cognitive-behavioral externalities that we are still only beginning to understand and mitigate. The enveloping of human life by information technologies has resulted in an informational environment whose dynamics the global persuasion industry has quickly come to dominate, and, in a virtually unbounded manner, has harnessed to engineer unprecedented advances in techniques of measurement, testing, automation, and persuasive design. The process continues apace, yet already we find ourselves entrusting enormous portions of our waking lives to technologies that compete with one another to maximize their share of our lives, and, indeed, to grow the stock of life that's available for them to capture.

This process will not cross any threshold of intolerability that forces us to act. It came on, and continues to evolve, gradually. There

will be no voice or light from the sky showing how we've become ensconced in a global infrastructure of intelligent persuasion. There will be no scales dropping from eyes, no Toto pulling back the curtain to reveal the would-be wizards pulling their levers. There will be no sudden realization of the gravity and unsustainability of this situation.

Milton Mayer describes how such a gradual process of normalization made even living under the Third Reich feel like no big deal. In his book *They Thought They Were Free*, he writes:

> But the one great shocking occasion, when tens or hundreds or thousands will join with you, never comes. *That's* the difficulty. If the last and worst act of the whole regime had come immediately after the first and smallest, thousands, yes, millions would have been sufficiently shocked . . . But of course this isn't the way it happens. In between come all the hundreds of little steps, some of them imperceptible, each of them preparing you not to be shocked by the next . . . And one day, too late, your principles, if you were ever sensible of them, all rush in upon you. The burden of self-deception has grown too heavy, and some minor incident, in my case my little boy, hardly more than a baby, saying "Jewish swine," collapses it all at once, and you see that everything, everything, has changed and changed completely under your nose . . . Now you live in a world of hate and fear, and the people who hate and fear do not even know it themselves; when everyone is transformed, no one is transformed . . . The system itself could not have intended this in the beginning, but in order to sustain itself it was compelled to go all the way.[11]

No designer ever went into design to make people's lives worse. I don't know any software engineers or product managers who want to undermine the assumptions of democracy. I've never met a digital marketing manager who aims to make society more outraged and fearful. No one in the digital attention economy *wants* to be standing in the lights of our attention. Yet the system, in order to sustain itself, has been compelled to go all the way.

This is an intolerable situation. What, then, is to be done? Like Diogenes to Alexander, we urgently need to look up at these well-meaning Alexanders of our time and tell them to "stand out of our light." Alexander didn't know he was standing in Diogenes' light because it didn't occur to him to ask. He was focused on *his* offer and *his* goals, not Diogenes' goals or what was being obscured by his offer. In the same way, the creators of our digital technologies don't know that they're standing in our light because it doesn't occur to them to ask. They have focused on *their* goals and *their* desired effects, rather than our goals or the important "lights" in our lives they may be obscuring.

For us, responding in the right way means treating the design of digital technologies as the ground of first struggle for our freedom and self-determination: as the politics *behind* politics that shapes our attentional world and directs downstream effects according to its own ends. Yet this new form of power does not go by the usual names, it does not play by the usual rules, and indeed those who wield this power take pains to pretend – despite the strenuous cognitive dissonance of such a claim – that they are not wielding any great political power at all. Yet it is plain that they do.

Ultimately, responding in the right way also means changing the system so that these technologies are, as they already claim to be, *on our side*. It is an urgent task to bring the dynamics and constraints of the technologies of our attention into alignment with those of our political systems. This requires a sustained effort to reject the forces of attentional serfdom, and to assert and defend our freedom of attention.

## NOTES

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