

CHAPTER 25

THE FOURTH SCREEN AND THE MIRROR OF NARCISSUS

As the first decade of the new century rolled on, something was happening in the streets of America. More and more men and women, most in suits, could be seen compulsively pulling out a device with a tiny screen and craning their necks to stare at it. At that point, there would begin the familiar exercise of rolling a little dial before urgently typing away with both thumbs. In those years, this distinctive habit marked one as part of either the corporate class or the federal government. To everyone else, it looked self-important and faintly ridiculous. Few realized they were beholding an image of their future selves.

This new attentional habit—actually an extension of the check-in—originated in the late 1990s, when, with no particularly grand vision, two young Canadians, Mihalis (Mike) Lazaridis and Doug Fregin, developed what they styled as an improvement on the pager.^{*} Their device, a clamshell of sorts, allowed both the sending and receiving of pages, but also, in a very primitive way, the capacity to read and write emails while on the go. They named it “The 900 Inter@ctive Pager.” The @ sign was meant to position it toward the future, and at the same time to reflect the engineering aesthetic at the heart of the company, Research in Motion, located in Waterloo, Ontario.

The RIM 900 was primitive; its monochrome screen was the size of a piece of bacon on its side, a cooked piece at that. But it was a modest success, leading Lazaridis and Fregin to develop a more advanced version, which they boldly called the “Research in Motion 950 Inter@active Pager.” This one was smaller overall, but with a bigger screen, a well-designed keyboard, and the capacity to retrieve emails automatically (at the time, this was heralded as “push” technology). It also ran for weeks on a single AA battery, a feature even current smartphone users can envy.

While no marketing expert—indeed, he had an engineer’s hostility to marketing’s influence—Lazaridis nonetheless sensed that his product’s name lacked pizzazz. He considered, for a while, calling it the “PocketLink” but at the last moment decided to consult some branding experts from California. After some analysis, in a way that might have done Ernest Dichter proud, the experts opined that the letter B conveyed reliability, and the device’s little keyboard looked like a strawberry. Out of that came the “BlackBerry.” Thus rechristened, the device finally began to feel some wind in its sails.

Slowly the new fruit began cropping up across North America and then the world, but while it was ultimately a great success, it was not a mass-market product like the television or radio; it remained the instrument of a certain elite. Indeed, so it was marketed not to the general public but rather to corporations

keen on keeping their employees in reach, or on call, at all times. Thus it was those corporate types, and also federal government types (most famously Barack Obama), who pioneered an attentional habit that would define the coming century. In comparison, television's momentous conquest of time and space in the twentieth would seem woefully incomplete.

As we've repeatedly seen in chronicling the past hundred years, it is such habits that make and break great attention merchants. The attending public were first captured reading daily newspapers, then listening to evening broadcasts, before they were entranced into sitting glued to the television at key intervals, and finally, over the 1990s, into surrendering some more of their waking time, opening their eyes and minds to computers—the third screen—in dens and offices around the world. Now a new device appeared capable of harvesting the attention that had been, as it were, left on the table, rather in the way fracking would later recover great reserves of oil once considered wholly inaccessible. Of course, the terms of this surrender seemed favorable, as they usually do: email on the go meant you could take your work with you and weren't stuck at home or the office. By 2015, the fourth screen would be in the hands of virtually everyone, seizing nearly three of the average American's waking hours. And so it would become the undisputed new frontier of attention harvesting in the twenty-first century, the attention merchants' manifest destiny. From now on, whither thou goest, your smartphone goes, too, and of course the ads.

As so often happens in tech industries, Research in Motion started the game but did not master it. That job would be left to the world's two mightiest computing empires, which by the 2010s had clued in to the potential for far broader adoption of what the BlackBerry represented. With their nearly unlimited reserves of engineering and design talent, Apple and Google would go on to create iPhones and Androids, respectively, and thoroughly clobber the Canadians at their own game, offering a much more appealing user interface. BlackBerry seemed to many invincible even with a mere 9 million subscribers in 2007, when the iPhone was first launched. By 2011, there would be 472 million smartphones sold worldwide in one year. There would soon follow not just an attentional habit but a new social norm, that of never parting from one's device; of standing and staring at it, as if paralyzed, as the world goes by; of not looking up in the presence of others, except when the urge to take a picture erupts at the strangest moment—*autre tech, autre mœurs*: it is probably the thing a visitor from a previous century would find the weirdest.

Where the human gaze goes, business soon follows, and by the 2010s virtually everyone in the attention industries was trying to figure out what might be the best way to get a piece of all that attention now directed downward at billions of palms. Google and Apple had the proverbial head start, but there was not a company that did not have at least someone trying to devise what was called at the time “a strategy for mobile,” now that the web was following millions of people everywhere.

Some of the adaption would be obvious from the start: clickbait, for instance, could certainly travel, if one imagined the bored commuter. Yet these were still early efforts, transplants from other platforms, the way radio shows had been adapted to TV. More specific to mobile were games like *Angry Birds*, *Candy Crush*, or *Flappy Bird*. Designed for passing the time on a little screen, these tended, in their simplicity, to resemble the earliest video games, like *Space Invaders*, *Pac-Man*, or *Tetris*. Facebook earned billions by selling advertisements that encouraged and made easy the installation of other apps. But the first attention-harvesting applications to make full use of the smartphone's distinctive capabilities were, as usual, unpredictable, yet once they'd arrived, utterly obvious.

Instagram was begun by a soft-spoken, fairly square serial tech entrepreneur named Kevin Systrom, whose inspiration came, in part, from his tenure as president of his high school photography club. He and his coding partner and cofounder, Mike Krieger, were rather typical San Francisco entrepreneurs of the 2010s, if there was such a thing: young, restless, looking for an idea, having already failed at one effort to create a saleable social media app—there was no shame in that; most of them went nowhere. They lacked the chutzpah of a Zuckerberg. Their invention was not at the level of an Edison or Bell; but as we’ve seen, in the attention industries, if the right chord is struck, it does not take much. Their new iPhone app did two things. First, it enhanced the device’s camera with a series of attractive filters that could be applied to photos, creating some immediate utility. Its second innovation, ultimately more influential, was to create a photo-centered social network—a sort of Twitter built on images. On Twitter, one shared a message; a photo was optional. Instagram made the photo mandatory and the message optional. Yep, that was it.

The simplicity of Instagram’s concept was its calling card—people got it—and it gained users quickly: by the spring of 2012, just eighteen months after its launch, it had 30 million. The thing was fun and easy to use, but it was also well timed, for it was the first popular social networking app that truly made full use of the smartphone’s functionality, tying its integrated camera to its Internet connection and app functionality. Moreover, it connected those devices with what, for want of a better name, can be called the market for aspiring celebrity. Like Twitter, Instagram users had followers—and the followers had the option with the click of a ♥ to “like” photos they enjoyed or otherwise approved. That “like” feature was the heart of Instagram, even more than of Facebook. Every photograph was, in a sense, rated by peers, thus providing a kind of instantaneous feedback.

Some would use Instagram to showcase their photographic skills or the luscious dishes they were tucking into. But far and away Instagram’s best known feature—its killer app—was the self-portrait, or as the Australians called it, “the selfie,” the term that became the *Oxford Dictionary*’s Word of the Year in 2013. Early on, Instagram reported that it had 53 million photos so designated (with #selfie). The selfie was so important that the form and the platform rose in tandem.

While Facebook was also a place for posting photos, and at some level presenting oneself as one would like to be seen, Instagram allowed for a seamless and more continuous visual narrative. In this way, active Instagrammers “created an Instagram life,” telling their own stories, or at least a stylized and idealized version of it, in images. If the average Facebook post showed a group of friends or a family in good times (perhaps posing with the dog, or holding up drinks at a party), Instagram’s photos would generally be more dramatic, glamorous, and often edgier, for the simple reason that they were posted with the calculated intent to seize attention and to elicit a reaction. This was particularly true for the app’s many younger users, who flocked to it as their grandparents started joining Facebook. A number of them would cultivate multiple narratives with different accounts: the “real” one (Rinstagram), which was the more contrived to impress; and the “fake” one (Finstagram), on which, for a smaller circle, they were content to be more themselves. Instagram thus occupied the territory on which Zuckerberg had originally positioned Facebook: *the* place to be. And the real-time fix of “likes” and comments would become for untold numbers an addictive form of self-affirmation.

Typically Instagram feeds looked as much like Facebook as *Vice* magazine spreads resemble a high school yearbook. The photos were not candid but posed, retouched, art directed. Some users adapted the form to more explicitly imaginative expression, creating themed accounts. For instance, a teenager called Liam Martin posted low-budget re-creations of celebrity glamour shots, usually with himself in drag; and

@socalitybarbie artfully chronicled the life of “Hipster Barbie” in a way meant to mock Instagram culture. “Hipster Barbie is so much better at Instagram than you.”¹

Like the early blogs, a good Instagram feed was labor-intensive. When she quit, Socality Barbie noted “the insane lengths many of us go to create the perfect Instagram life.”² A “fashion” Instagrammer named Amanda Miller who offered an online guide to gaining followers confesses that “getting to 18.5k followers was A LOT of work.”³ In addition to composing and shooting photos, the feed demands interacting with strangers to make them feel engaged or heard, the way a politician or other public figure might—the way a real celebrity doesn’t have to do. As Miller writes, “Engagement: This is the hardest part because it takes something money can’t buy, and that is TIME. It takes A LOT OF TIME.”

Occasionally, the effort was monetized. Some of the more popular users of Instagram (typically young, attractive, and female) managed to become attention merchants, selling product placements in their photographs. “Companies have realized that one photo on the Instagram account of someone with over 100,000 followers is reaching more people directly than any traditional ad campaign,” explained a new social media ad agency; a popular, microfamous Instagrammer might charge brands \$1 per “like” earned by a sponsored photo.⁴

For the better known—those already in the business of capturing and reselling attention, the utility of Instagram as an additional platform and revenue stream was obvious; of course their publicists or other staff could be expected to do most of the work for these incorporated personalities. In a major attention-capture stunt, Kim Kardashian famously used Instagram in 2014 to send out a picture of her nearly naked backside in an attempt to “break the Internet.” It may not quite have done that, but it paid off in attention earned; it must have, because Kardashian’s management, normally so efficient about getting paid, negotiated no other compensation. It was further evidence of attention’s having become an accepted form of currency. James Franco, a C-list actor under the old metrics, and himself a self-confessed “Instagram addict,” would speak to its broad acceptance: “It’s what the movie studios want for their products, it’s what professional writers want for their work, it’s what newspapers want—hell, it’s what everyone wants: attention. Attention is power.”⁵

In Franco’s case, tending his image has become a career in itself, more or less, and so he is driven to self-market to maintain his audience. Calling it a business model as opposed to mere narcissism at least provides an excuse, insofar as many careers excuse what would otherwise be considered unhealthy or insane behavior.

But the resale remains the main opportunity. For a sense of the range of possibilities, a tale of two backsides may suffice: one, as just mentioned, was that of Kim Kardashian. Upon her attempt to “break the Internet,” she was in possession of some 55 million Instagram followers. Such is the power of multi-platform, *People*-cover-worthy celebrity. Now consider Jen Selter, a twenty-two-year-old fitness advocate. Selter’s renown came about almost exclusively from social media, based on photographs revealing her own assiduously developed posterior. As of this writing, Selter has some 8.5 million Instagram followers, more than enough to attract all kinds of business opportunities, including sponsorships, appearances, and others enjoyed by Kardashian, if on a more modest scale. Unknown to most, she is nevertheless enough of an Instagram star to be a perfectly successful attention merchant.

But what of all those many among us busily keeping up an Instagram feed with no hope of ever reselling the attention? For most, the effort is an end in itself, and the ultimate audience is the very subject of the camera’s interest. Understood this way, Instagram is the crowning achievement of that decades-long

development that we have called the “celebrification” of everyday life and ordinary people, a strategy developed by attention merchants for the sake of creating cheap content.

Let us review our story in brief, as it might relate to Instagram: For most of human history, the proliferation of the individual likeness was the sole prerogative of the illustrious, whether it was the face of the emperor on a Roman coin or the face of Garbo on the silver screen. The commercialization of photography may have broadened access to portraiture somewhat, but apart from wanted posters, the image of most common people would never be widely propagated. In the twentieth century, Hollywood created a cohort of demigods, whose image everyone recognized and many, in effect, worshipped. With the arrival of the smartphone and Instagram, however, much of the power of a great film studio was now in every hand attached to a heart yearning for fame; not only could one create an image to rival those of the old icons of glamour, but one could put it on a platform where millions might potentially see it.

Perhaps a century of the ascendant self, of the self’s progressive liberation from any trammels not explicitly conceived to protect other selves, perhaps this progression, when wedded to the magic of technology serving not the state or even the corporation but the individual ego, perhaps it could reach no other logical endpoint, but the self as its own object of worship.

Of course, it is easy to denigrate as vanity even harmless forms of self-expression. Indulging in a bit of self-centeredness from time to time, playing with the trappings of fame, can be a form of entertainment for oneself and one’s friends, especially when undertaken with a sense of irony. Certainly, too, the self-portrait, and the even more patently ludicrous invention, the selfie stick, has become too easy a target for charges of self-involvement. Humans, after all, have sought the admiration of others in various ways since the dawn of time; it is a feature of our social and sexual natures. The desire of men and women to dress up and parade may be as deeply rooted as the peacock’s impulse to strut. Like all attention harvesters, Instagram has not stirred any new yearning within us, merely acted upon one already there, and facilitated its gratification to an unimaginable extent. Therein lies the real problem.

Technology doesn’t follow culture so much as culture follows technology. New forms of expression naturally arise from new media, but so do new sensibilities and new behaviors. All desire, the philosopher and critic René Girard wrote, is essentially mimetic; beyond our elemental needs, we are led to seek after things by the example of others, those whom we may know personally or through their fame. When our desires go beyond the elemental, they enter into their metaphysical dimension, in which, as Girard wrote, “All desire is a desire to be,” to enjoy an image of fulfillment such as we have observed in others. This is the essential problem with the preening self unbound by social media, and the democratization of fame. By presenting us with example upon example, it legitimates self-aggrandizement as an objective for ever more of us. By encouraging anyone to capture the attention of others with the spectacle of one’s self—in some cases, even to the point of earning a living by it—it warps our understanding of our own existence and its relation to others. That this should become the manner of being for us all is surely the definitive dystopic vision of late modernity. But perhaps it was foretold by the metastatic proliferation of the attention merchants’ model throughout our culture.

In the fall of 2015, an Australian teenager, Essena O’Neill, quit Instagram in utter despair. A natural beauty and part-time model, she had become an Instagram celebrity, thanks to her pictures, which had drawn half a million followers. But her Instagram career, she explained, had made her life a torment.

“I had the dream life. I had half a million people interested in me on Instagram. I had over a hundred thousand views on most of my videos on YouTube. To a lot of people, I made it,” she confessed in a video.

But suddenly it had all become too much.

Everything I was doing was edited and contrived and to get more views....Everything I did was for views, for likes, for followers....Social media, especially how I used it, isn't real. It's contrived images and edited clips ranked against each other. It's a system based on social approval, likes, validation in views, success in followers. It's perfectly orchestrated self-absorbed judgement....I met people that are far more successful online than I am, and they are just as miserable and lonely and scared and lost. We all are.⁶

A survey of Instagram and other social media users by the London *Guardian* yielded similar responses, suggesting that even among those with relatively few followers the commitment is grim. "I feel anxiety over how many likes I get after I post a picture. If I get two likes, I feel like, what's wrong with me?" wrote one woman.⁷ "I do feel insecure if I see girls who look prettier than me," wrote another, "or if they post really pretty pictures, and I know I won't look as good in any that I post. I do feel pressure to look good in the photos I put up. I don't feel anxious about not getting enough likes on a photo but if it doesn't get enough likes, I will take it down."

In April 2012, a mere eighteen months after its debut, Instagram was purchased by Facebook for \$1 billion. The high-flying start-up's founders had cashed out without ever having devised a business model. No matter: by November the following year, the first ad feed would run in Instagram, following Facebook principles of limited targeting. The acquisition would prove astute. In April 2012 Instagram had 30 million users, but by the fall of 2015 it had 400 million, more than Twitter. And so Facebook would join the ranks of hoary behemoths with a war chest. A transfusion of young blood would preserve their status in the uppermost echelon of attention merchants.

As for Instagram, its upward glide portended a future in which the line between the watcher and the watched, the buyer and the seller, was more blurred than ever. The once highly ordered attention economy had seemingly devolved into a chaotic mutual admiration society, full of enterprising Narcissi, surely an arrangement of affairs without real precedent in human history.

* The pager was a portable device used in the 1980s and 1990s that allowed the bearer to receive notifications that a return call was desired.

CHAPTER 26

THE WEB HITS BOTTOM

“Which Ousted Arab Spring Ruler Are You?” “You Might Be Cleaning Your Penis Wrong,” “37 Things Conservatives Would Rather Do Than Watch Obama’s State of the Union Speech,” “29 Cats Who Failed So Hard They Won.”

Here was BuzzFeed, at its height in the 2010s, undisputed king of clickbait, and the grandmaster of virality. As a cofounder of *The Huffington Post*, Jonah Peretti had gained a measure of success, recognition, and personal wealth. But it wouldn’t be long before he lost interest in the operation, which had begun to run itself, and felt compelled to return to his original passion: the pure art and science of harvesting attention with “contagious” or “viral” media. He was still at *The Huffington Post* when he began to conceive the endpoint, or perhaps the punch line, to his long obsession: a site whose mission would be nothing but to build pure contagion and launch it into the ether.

BuzzFeed billed itself as the “first true social news organization,” which meant it was designed for a post-Facebook and post-Twitter world, where news gained currency by being shared on social networks, through newsfeeds, Twitter feeds, and the like. It was also designed to be read on the now ubiquitous mobile platforms; by 2015, 60 percent of its traffic was via phones and other wireless devices (including 21 percent from Snapchat)—the key to success was now getting people to share stuff socially from mobile.

By the time Peretti built BuzzFeed, viral media were not an occasional phenomenon, but reaching the public like successive waves crashing on a metaphorical shore, they thus both rivaled and complemented (depending on the context) existing means of capturing attention. It was a time when a random picture of a grumpy-looking cat (Grumpy Cat) posted on the online bulletin board Reddit made a viable career for its owners; when a ridiculous dance video like “Gangnam Style” amassed more than 2.4 billion online views (while the 2014 World Cup, the most watched event in human history, reached about 1 billion).

As nothing but a pure embodiment of Peretti’s techniques, BuzzFeed did without even the pretense of a public mission, the only goal being to amuse viewers enough to trigger their sharing. With content often nearly devoid of any meaningful communication, the medium truly was the message. And while this might sound like unprecedented cynicism vis-à-vis the audience, the idea was to transfer creative intention to them; they alone would “decide if the project reaches 10 people or 10 million people.”¹ To help them decide, BuzzFeed pioneered techniques like “headline optimization,” which was meant to make the piece irresistible and clicking on it virtually involuntary. In the hands of the headline doctors, a video like “Zach Wahls

Speaks About Family” became “Two Lesbians Raised a Baby and This Is What They Got”—and earned 18 million views. BuzzFeed’s lead data scientist, Ky Harlin, once crisply explained the paradoxical logic of headlining: “You can usually get somebody to click on something just based on their own curiosity or something like that, but it doesn’t mean that they’re actually going to end up liking the content.”

BuzzFeed also developed the statistical analysis of sharing, keeping detailed information on various metrics, especially the one they called “viral lift.” Let’s take, for example, a story entitled “48 Pictures That Capture the 1990s,” which garnered over 1.2 million views. BuzzFeed would measure how many people read it (views), and of those, how many went on to share it, whether on Twitter, Facebook, or other sites. If, say, twenty-two people with whom the link was shared were moved to click on it, the story would be said to have a viral lift of 22x. Such data would help BuzzFeed’s experts refine their understanding of what gets shared, and what doesn’t.

Collectively BuzzFeed and its rivals—Mashable, Upworthy, and in time parts of the mainstream media—began to crack the code; eventually they could consistently make content go viral. Much of what they discovered validated Peretti’s original theories—particularly about the necessity of stimulating “pleasure in the social process of passing” something along and of ensuring that the contagion “represent[s] the simplest form of an idea.”² But the “pleasure” of sharing did not necessarily mean that viewing the content had been pleasurable. The urge to share was activated by a spectrum of “high-arousal” emotions, like awe, outrage, and anxiety. A story with a headline like “When All Else Fails, Blaming the Patient Often Comes Next,” or “What Red Ink? Wall Street Paid Hefty Bonuses,” or “Rare Treatment Is Reported to Cure AIDS Patient” would trigger one of these emotions—or even better, several at once.

Naked plays for attention always draw scorn, and as BuzzFeed’s fortunes rose in the 2010s, it was no exception. As Ben Cohen, founder of the journalism site *The Daily Banter*, wrote: “I loathe BuzzFeed and pretty much everything they do....It could well trump Fox News as the single biggest threat to journalism ever created.”³ When BuzzFeed presented the Egyptian democratic revolution as a series of GIFs from the film *Jurassic Park*, Cohen fulminated: “To say this is childish, puerile bullshit would be a massive understatement....Doing funny GIF posts about cats and hangovers is one thing, but reducing a highly complex political crisis into 2 second moving screen shots of a children’s dinosaur movie is something completely different. If BuzzFeed really is the future of journalism, we’re completely and utterly fucked.”⁴ Indeed, by 2012, the scramble for eyeballs against forces like BuzzFeed seemed to bring news media to a new low. When Fox News broadcast a video of a man committing suicide and BuzzFeed reposted the link, the *Columbia Journalism Review* was compelled to ask, “Who’s worse? @FoxNews for airing the suicide, or @BuzzFeed for re-posting the video just in case you missed it the first time?”⁵

BuzzFeed was indeed proving the envy of all other online attention merchants, in traffic at least. By 2015, its 200+ million monthly unique viewers exceeded most of its competitors, and 75 percent of its traffic was coming from social media. Ultimately its techniques were widely copied, not just by its direct competitors like the *Daily Mail* or Cracked.com but by *The Huffington Post*, Peretti’s previous venture, and more obliquely, by magazines like *Slate* as well as newspapers like *The Washington Post*. Even literary magazines like *The Atlantic* and *The New Yorker* got in on the act. BuzzFeed thus became the reference point, the gold standard, for attention capture on the web.

Not that BuzzFeed was terribly profitable. It lost money for most of its early years, only began to turn a profit in 2013, and never exceeded \$10 million (while hardly a fair comparison, Apple's iTunes store alone, also in the content business, and not considered highly profitable, has been estimated to clear \$1 billion in profit per year). Its fortunes reflected the still-low price of digital ads; BuzzFeed's annual ad revenues of roughly \$100 million were still far less than, say, *People* magazine (about \$1 billion). Nonetheless, BuzzFeed was still growing, and as the decade reached its midpoint, was pegged at \$850 million in value; then, over the summer of 2015, the cable giant Comcast bought a stake that valued the company at \$1.5 billion.

Comcast's investment in BuzzFeed was at last a consummation of the union between the old and the new media such as Microsoft and AOL–Time Warner had once contemplated, though now involving far less money than in those headier days. For comparison's sake, though, it is worth remarking that *The Washington Post*, with its forty-seven Pulitzer Prizes, was purchased by Jeff Bezos for \$250 million in 2013—old media valuations clearly weren't what they used to be, either. And yet even if BuzzFeed had attracted real dollars, the deal with Comcast nonetheless seemed to diminish the new media in some way. Blogging and other forces that Jeff Jarvis and others had predicted were going to demolish the establishment had eventually yielded to BuzzFeed. BuzzFeed was then bought by old media for what amounted to chump change. So much for all of that.

Peretti had never been less than forthright and consistent about the objectives of his work: it was attention capture for its own sake. But the entry of contagions and clickbait and even social networks in the ecosystem of the content-driven media inevitably had its degrading influence on the latter. Mark Manson well described the state of the web in the 2010s:

Last week, I logged onto Facebook to see a story about a man who got drunk, cut off his friend's penis and then fed it to a dog. This was followed by a story of a 100-year-old woman who had never seen the ocean before. Then eight ways I can totally know I'm a 90's kid. Then 11 steps to make me a "smarter Black Friday shopper," an oxymoron if I ever saw one. This is life now: one constant, never-ending stream of non sequiturs and self-referential garbage that passes in through our eyes and out of our brains at the speed of a touchscreen.⁶

Within twenty years of having been declared king, content seemed to be on the road to serfdom.

Once a commons that fostered the amateur eccentric in every area of interest, the web, by 2015, was thoroughly overrun by commercial junk, much of it directed at the very basest human impulses of voyeurism and titillation. To be sure, there were exceptions, like Wikipedia, a healthy nonprofit; Reddit, still a haven for some of the spirit of the old Internet; small magazines like *Verge*, *Vox*, *Quartz*, and the *Awl*; even some efforts to reboot blogging, like the *Medium*. Likewise, faced with an existential crisis of relevancy, traditional news media, so long allergic to the Internet, dramatically improved their online content over the decade. But these bright spots were engulfed by the vast areas of darkness, the lands of the cajoling listicles and the celebrity nonstories, engineered for no purpose but to keep a public mindlessly clicking and sharing away, spreading the accompanying ads like a bad cold. As the clicks added up, what was most

depressing perhaps was that all this was for the sake of amassing no great fortune, but in fact relatively paltry commercial gains, rounding errors in the larger scheme of commerce. The idealists had hoped the web would be different, and it certainly was for a time, but over the long term it would become something of a 99-cent store, if not an outright cesspool. As with the demolition of Penn Station, a great architectural feat had been defaced for little in return. But as so often in the history of attention merchants, when competition mounts, the unseemliness soars and the stakes plummet.

And that was just the content; the advertising, meanwhile, was epically worse. By the mid-2010s the average reader on news sites like the *Boston Globe*'s boston.com would be subjected to extraordinary surveillance methods, with only the barest degree of consent. Such operations would be invisible to the user, except for the delays and solicitations they triggered. Online tracking technologies evolved to a point that would have made a Soviet-era spy blush. Arrival at NYPost.com would trigger up to twenty or more urgent "tracking" messages to online ad agencies, or "ad networks," advising them of any available intelligence on the user, in addition to specifying what stories they were reading. Attention merchants had always been ravenous for attention, but now they were gobbling up personal data as well. Perhaps the oversharing on social media had simply lowered the standard of privacy. Perhaps the Internet, with its potential to capture every turn of our attention, made this inevitable. Whatever the case, several commercial entities were now compiling ever more detailed dossiers on every man, woman, and child. It is a more thoroughly invasive effort than any NSA data collection ever disclosed—and one of even more dubious utility.

The automation of customized advertising was intended, in theory, to present you with things more likely to seize your attention and make you click. It must be seen as a continuation of the search we have described for advertising's Holy Grail: pitches so aptly keyed to one's interests that they would be as welcome as morning sunshine. The idealists foresaw a day when ad platforms would be like a loyal valet who detected his master's needs before he was aware of them, who suggested a new pair of shoes as a reasonably priced replacement for those you hadn't noticed were wearing out. Perhaps he would remind you of your mother-in-law's birthday while offering to send an appropriate gift at a one-day discount.

But the gap between this theory and its execution was wide enough to march Kitchener's Army through it. Google's CEO Eric Schmidt had once said that the ideal was to "get right up to the creepy line and not cross it."⁷ Unfortunately, by the mid-2010s, that line was being crossed constantly. While promising to be "helpful" or "thoughtful," what was delivered was often experienced as "intrusive" and worse. Some ads seemed more like stalkers than valets: if, say, you'd been looking at a pair of shoes on Amazon, an ad for just those shoes would begin following you around the web, prodding you to take another look at them. What was meant to be "relevant" to your wishes and interests turned out to be more of a studied exploitation of one's weaknesses. The overweight were presented with diet aids; the gadget-obsessed plied with the latest doodads; gamblers encouraged to bet; and so on. One man, after receiving a diagnosis of pancreatic cancer, found himself followed everywhere with "insensitive and tasteless" ads for funeral services. The theoretical idea that customers might welcome or enjoy such solicitations increasingly seemed like a bad joke.

To make matters worse, the technology of behavioral advertising added layers of complexity to the code of any website, causing the system to slow or freeze, and sometimes preventing the page from loading altogether. According to a *New York Times* study in 2015, despite the fact that every other technology had improved, some websites were now taking five seconds or more to load; and the situation was even worse on mobile phones, with their slower connections.⁸ Videos had a way of popping up and starting to play unbidden; and the user looking for the stop button would find it was the tiniest of all, and often oddly

located. And something of a ruse as well: if you missed hitting it directly, yet another website would open, with yet more ads.

In nearly every possible way, ad tech was terrible for consumers and, to compound the pity of it all, not particularly lucrative for advertisers either. As the programmer Marco Arment lamented in 2015, “In the last few years...web ad quality and tolerability have plummeted, and annoyance, abuse, misdirection, and tracking have skyrocketed. Publishers don’t have an easy job trying to stay in business today, but that simply doesn’t justify the rampant abuse, privacy invasion, sleaziness, and creepiness that many of them are forcing upon their readers.”⁹ Even the tech people managed to draw a short straw, for all of this mischief took a surprising amount of programming talent to accomplish. “The best minds of my generation are thinking about how to make people click ads,” commented scientist Jeff Hammerbacher. “That sucks.”¹⁰

Ultimately, the problem was as old as the original proposition of seizing our attention and putting it to uses not our own. It is a scheme that has been revised and renewed with every new technology, which always gains admittance into our lives under the expectation it will improve them—and improve them it does until it acquires motivations of its own, which can only grow and grow. As Oxford ethicist James Williams put it,

Your goals are things like “spend more time with the kids,” “learn to play the zither,” “lose twenty pounds by summer,” “finish my degree,” etc. Your time is scarce, and you know it. Your technologies, on the other hand, are trying to maximize goals like “Time on Site,” “Number of Video Views,” “Number of Pageviews,” and so on. Hence clickbait, hence auto-playing videos, hence avalanches of notifications. Your time is scarce, and your technologies know it.¹¹

In this game of trackers and profile builders, as in so many others, Google and Facebook, de facto diarchs of the online attention merchants, reigned supreme. By design, both firms had acquired the best data on just about every consumer on earth, as well as possessing the best tools for collecting more of it, which by the 2010s both were prepared to exploit as far as possible. Never mind that each had originally been hesitant even to allow advertising to pollute its pages or interfere with the user experience. That was then. Since those years of initial hand-wringing, as investors and Wall Street demanded their quarterly increases in revenue, there was little choice but to turn up the heat, intensifying the reach of ads while hoping that their respective market positions were secure enough to prevent too many users from bolting. The essential bind of the attention merchant began tightening even on those Faustian geniuses who thought they had beaten the Devil.

YouTube, now a Google subsidiary, offers perhaps the starkest example of the change. Once entirely ad-free, by the mid-2010s many of its videos required users to watch a fifteen or thirty-second commercial to see a few minutes of content, making television’s terms look almost respectful by comparison. That priceless impression of getting great stuff for free, the attention merchant’s most essential magic trick, was losing its charm. As with any bit of legerdemain, once the actual workings are revealed, the strings made visible, it becomes ugly and obvious, drained of its power to enchant.

Targeting and tracking were not the only innovations in web advertising over the 2010s. Trying to stay

ahead of the growing disenchantment, sites like BuzzFeed brought forth their own inventions, if such ideas could merit the term. One was known as the “advertorial,” or “native advertising,” ads designed to look like content native to the site, aping its form and functionality. The idea was that if it didn’t look like an ad it might get past more users’ defenses. “We work with brands to help them speak the language of the web,” said Peretti in the 2010s of this Trojan horse approach, uncharacteristically compromising the integrity of his shameless love of contagion. “I think there’s an opportunity to create a golden age of advertising, like another *Mad Men* age of advertising, where people are really creative and take it seriously.”¹²

In practice this supposedly new *Mad Men* age consisted of BuzzFeed-style stories written at the behest and expense of corporations. Consider “The 14 Coolest Hybrid Animals,” a series for Toyota’s Prius, or “11 Things You Didn’t Know About [the Sony] PlayStation” joined with “10 Awesome Downloadable Games You May Have Missed.” Since BuzzFeed also wrote “real” news stories about the Hybrid Sony PlayStation, it was sometimes awfully hard to distinguish the content that was sponsored, not that it mattered much in BuzzFeed’s case.

“Maybe I’m old-fashioned but one core ethical rule I thought we had to follow in journalism was the church-state divide between editorial and advertising,” wrote Andrew Sullivan, the prominent blogger and former journalist, about this approach.¹³ Nonetheless, by mid-decade native advertising had become a commonplace and even heralded as a potential solution to journalism’s woes. It would be embraced by media companies as reputable as *The New York Times* and Condé Nast, which now, like BuzzFeed, had on-site units aping their own in-house style for their advertisers. “The ‘sponsored content’ model is designed,” Sullivan observed, “to obscure the old line as much as possible.”

The world was slow to turn on the web, still after all the fountain of the new. Whether for reasons of politics or politesse, the web would suffer a lot of ruin before many critics, who’d fallen in love with its openness, would admit that things had gone awry. Even so, by the mid-2010s, more and more ordinary users had their own impression of the emperor’s new clothes. Perhaps the first sign of elite revolt was the idea best articulated by Nicholas Carr that the web was making us stupider. Maybe it was the growing talk of an “information glut,” or Jaron Lanier’s argument, in his manifesto *You Are Not a Gadget*, that the culture of the web had resulted in a suppression of individual creativity and innovation. Even the incredibly powerful tools of sharing and communication—email, Twitter, YouTube, Facebook, Instagram—once employed by entities like BuzzFeed, didn’t seem so magical, having collaborated in building an attentional environment with so little to admire. For in its totality the web seemed to be bobbing in the crosscurrents of an aggressive egotism and neurasthenic passivity. Thus trapped, it was suddenly vulnerable to capture by anyone with a promise of something different or better.

CHAPTER 27

A RETREAT AND A REVOLT

In 2011, the independent studio Media Rights Capital was shopping an American remake of a modestly successful British political drama named *House of Cards*. Among other advantages, the producers boasted of having attached to the show David Fincher, the Oscar-winning director of *The Social Network*. They hoped, ideally, to sell the idea to HBO, or maybe a cable channel like A&E interested in buttressing its reputation for serious drama since the success of *Mad Men*.

Unexpectedly, while in Los Angeles, Fincher received a call from Ted Sarandos, a senior executive at Netflix. Netflix was, at the time, a company that had made its name shipping DVDs by mail; more recently it had begun streaming content over the Internet, with variable success. Sarandos was already known to Hollywood for buying its leftovers—the rights to old films that had already seen theatrical release, DVD sales and rentals, in-flight screening, and every other channel of distribution. Netflix was thus something of a town scrap dealer, at the bottom of the content food chain.

“We want the series,” Sarandos told Fincher, “and I’m going to pitch you on why you should sell it to us.”¹ Convincing a famous auteur to bring his talents to a medium—the Internet—then best known for cat videos was not going to be easy. But Netflix promised a lot. Though he’d never directed a TV series before, Fincher would be given enormous creative control. Rather than putting it through the pilot process, the usual way to test a TV show’s prospects, Netflix was willing to pay for two thirteen-episode seasons up front. Last but not least, Sarandos offered a pile of money: a reported \$100 million, or as much as would be ordinarily invested in an expensive feature blockbuster.

The risk for Netflix was that in exchange for its millions it would wind up stuck with a bomb that exploded in slow motion. At that moment, moreover, the company, while valued at hundreds of millions, had just \$17 million in profit to show for 2012. The risk for Fincher, of course, was that no one would watch the series or that Netflix would go bankrupt. But that \$100 million was an offer he couldn’t refuse, and so *House of Cards*, arguably the first serious feature drama to debut on the Internet, began looking for its cast.

This of course was no lark for Netflix. With the purchase of *House of Cards*, the rising firm was aiming to cause a definitive shake-up in both the television and Internet content markets. Consider that in 2011, all commercial Internet content was driven by advertising. Sure, there were different types: programmatic advertising, native advertising, Google AdWords, YouTube prerolls, Facebook ads, and Twitter’s sponsored

tweets. But behind everything was the same old model: that of the attention merchant. Not since television in the 1950s had any medium become so quickly dominated by it.

Netflix, then, was virtually alone, as an Internet company, in blazing a different path. From the beginning of its streaming venture, the firm had taken the bold and seemingly foolhardy decision to forgo advertising altogether. It rejected the attention merchant model, despite the obvious revenue potential. There was, perhaps, something natural to that decision, given that its DVD service was not ad-driven but by subscription. Still, the call was not inevitable. When asked to explain the company's aversion to advertising, Reed Hastings, Netflix's CEO, described it as part of a strategy of putting the viewer "in control of the experience."² Therefore, he said, "It's fundamental to that control orientation that we don't cram advertisements down people's throats."

The intuition was, in retrospect, informed by a deeper insight than most anyone knew at the time. In business, there is always potential to gain something by zigging while everyone else is zagging. With everyone else—including its closest rival, Hulu, a joint venture of other media companies—reliant on advertising, Netflix could distinguish itself by offering a different kind of experience. But there was something more; in a sense, Netflix rediscovered a lost trove of human attention; not the splintered and fleeting kind being plundered by the web and cable TV, but deeper, sustained attention. It was a rich vein indeed, filled with an evident hunger for more engaging, immersive content. Netflix wasn't the only one providing it, but it was the only Internet company.

In 2013, when *House of Cards* premiered, Netflix made a splash by releasing all thirteen episodes of *House of Cards* at once. What it didn't necessarily predict was the binging. The logical opposite of web or channel surfing, binging does not involve idly flipping through stuff, but engaging so deeply with a program that one can watch hours and hours in one sitting; the experience goes far beyond that of watching a feature-length film, instead competing with experiences like attending a performance of Wagner's Ring Cycle. *House of Cards* was thirteen hours long, yet Netflix reported that thousands of viewers consumed it in one gulp over the weekend of its release.*

A Netflix poll of TV streamers found that 61 percent defined their viewing style as binge watching, which meant two to six episodes at a sitting. Grant McCracken, a cultural anthropologist paid by Netflix to investigate (and promote) the habit, reported that "TV viewers are no longer zoning out as a way to forget about their day, they are tuning in, on their own schedule, to a different world. Getting immersed in multiple episodes or even multiple seasons of a show over a few weeks is a new kind of escapism that is especially welcomed today."³ By that, he meant in the context of everything else having become crazy-making.

Netflix's success was a token of something unexpected despite having roots in the early 2000s. Television, the idiot box, the dreaded "unity machine," the reviled "boob tube," was declared by the smart money to be dead meat in the twenty-first century, destined perhaps to survive out of sheer inertia serving the poor and elderly shut-ins but eventually to go the way of the typewriter or horse and buggy. Always ahead of everyone in being wrong, the futurist George Gilder had published a book in 1990 entitled *Life After Television*. By 2007, even Damon Lindelof, co-creator of the hit series *Lost*, was boldly ready to wrongly proclaim that "television is dying."⁴

Many of the cable networks suffered from disenchantment caused by the slow surrender to pointless

spectacle and inane personality. At the same time, however, the purveyors of high-quality, commercial-free programs—not only Netflix but HBO even earlier, as well as other networks like A&E and Showtime—began suddenly to prosper and attract audiences that approached the size of those attending prime time at its peak. HBO's wildly popular show *The Sopranos* had more than 18 million viewers per episode over the early 2000s; a decade on, the network's *Game of Thrones* would begin to reach 20 million per episode.

Of course, certain segments of the population had never really left television at all. As faithful, regular, and predictable as the prime-time audiences of the 1950s were lovers of baseball, football, soccer, and other sports; in the United States and abroad, such broadcasts demonstrated an almost uncanny immunity to the laws governing other kinds of programming. Remember, *Amos 'n' Andy*, with 40 million listeners in 1932, would lose its entire audience not long after. *I Love Lucy*, among the most successful sitcoms in history, petered out after six seasons. Yet no such fading away has been detected among sports viewers, who renew themselves in every generation. Perhaps it is because in sports there is no abuse of one's attention, no jumping the shark. There may be long-term rises and declines in audiences, but overall, as ESPN's John Skipper put it, they are "shockingly reliable." In all other formats, however, attention and audiences were declining for free TV.

The diminuendo had even forced the traditional advertising industry to up its game over the decade's first century. In the long years of prime time's uncontested sovereignty, and before the remote control, viewers could be expected to sit through commercials or, at worst, go off to get a snack of something they were being shown. The remote had done some damage to that fixity, but now a veritable revolution was relocating real control and choice in the hand of the viewer—at first through DVRs and the effectively unbounded selection of digital channels, and then streaming. Faced with unprecedented competition, advertising, as in the 1980s, was forced to become more intrinsically entertaining in order to have any chance of being effective. Once again, a thousand and one experts trumpeted the necessity of creating ads that viewers actually wanted to watch.

But with so many ways of not watching advertisements, it was not enough to suppress increasing doubts as to whether anyone was actually watching the commercials. The industry also started returning to older strategies. Product placements became more common; late-night comedians incorporated products into their monologues. A show like *Portlandia*, a satire about earnest Oregonians, would begin incorporating Subarus into its skits, pursuant to a sponsorship contract. Shows also began to incorporate "live commercials," in which characters suddenly stop what they are doing and begin finding reason to speak on the merits of a product. It still wouldn't be enough to deter the hard-core ad-avoiders, but it cannot be denied that advertising, from the early 2000s onward, was trying much harder to be unavoidable and also likable.

But by far the most important innovation was the immersive, commercial-free television to which addled audiences bombarded from all sides were now flocking. A few clever producers like Tom Fontana, creator of HBO's *Oz*, and later David Chase, who conceived *The Sopranos*, were not only themselves attracted to the idea of making more filmic television, with psychological texture, but intuited that some viewers would be looking for a fully formed alternative reality they might enter for a time, a natural response when the built attentional environment becomes inhospitably chaotic. Indeed, what we witness in the disenchanted TV viewer is a return of something older—the deep, high-quality attention of motion picture viewers, those engrossed in a good book, or early television audiences, completely lost in the presentation. This is and always was the durable advantage of film and television, before the former was carved up by chase scenes and the latter by commercial breaks.

To pay this kind of attention can be rewarding. Here is the journalist Andrew Romano on his favorite viewing fare:

After watching *Game of Thrones* for a mere 30 seconds, my brain begins to produce the alpha waves typically associated with hazy, receptive states of consciousness, which are also generated during the “light hypnotic” stage of suggestion therapy. At the same time, my neurological activity switches from the left hemisphere to the right—that is, from the seat of logical thought to the seat of emotion. Whenever this shift takes place, my body is flooded with the natural opiates known as endorphins, which explains why viewers have repeatedly told scientists that they feel relaxed as soon as they switch on the television, and also why this same sense of relaxation tends to dissolve immediately after the set is turned off.⁵

If that sounds like an experience worth more than all the mindless diversions of free TV, it probably is. Buffeted by websites designed to distract, who-wants-to-be-a-celebrity, and the rest, streamed television—the convergence Microsoft could not quite foresee—was suddenly and unexpectedly emerging as a haven in the digital pandemonium. Television—which once had shown such promise to improve the human condition, but which had been kidnapped by commercial interests virtually at birth and raised to be the greatest attention harvester of the twentieth century and still the attention merchant’s favorite servant—was now repaying the attention it attracts in a way that put the viewer’s experience first.

To make things not for grazing but for deep engagement required a new set of narrative strategies, though it was possible to make such television at various levels of quality and sophistication, depending on what the viewer sought. So it had been, too, with the new idiom’s progenitors, feature film and even the Victorian novel. While *House of Cards* might have made bingeing mainstream, in the decade before, writers of shows were inventing what Vince Gilligan (of *Breaking Bad*) termed the “hyperserial.” Unlike the dramatic series of old, this kind made sense only to those who committed to every episode and indeed multiple seasons of viewing.

For television, this change was radical. Let us remember that back in the 1950s, early programs—variety shows mainly—lacked plots altogether. The first plotted shows were, in the language of programming, “episodic.” And so a viewer could tune in to any episode of *I Love Lucy*, or *Gilligan’s Island*, knowing that only the plot was (in the first case) breaking into show business or (in the second case) getting off the island; any particular episode was merely a freestanding enactment of that story line, the principal aim being to showcase the characters, who, oddly, never learned. At the end of every episode (or, in an exceptional case, every few) the show would reset to its eternal starting point, like a video game returning to its starting screen for a new player.

In a hyperserial, the plot, like that of a long film or novel, has more of the flow of life. Each installment has its consequences; characters might disappear or reappear; a larger story is actually told. The press of characters and incident can vary; some hyperserials, like some lives, are easier to drop in to than others. But like any good story they are nearly impossible to understand from the middle.

That good storytelling should have emerged as a priority is perhaps the most dramatic statement one

could make about what was happening to television, although its appearance attests a potential that the medium always possessed. That expression of this potential was first undertaken by shows that had eliminated commercials gives some indication of what the attention merchants have to answer for. That it took so long made one wonder why we had put up with anything else for so many years.

* The first uses of “binge watching,” “binge viewing,” and other variants date to the late 1990s on online user forums, perhaps for the *X-Files*. In 1996, a fan looking for VHS tapes of the show wrote: “There are three of us who all got hooked at the same time, so I’d predict that there’d be some MASSIVE binge watching right away! :-).” The phrase, however, only began to show up in mainstream sources in 2003; Emily Nussbaum, of *The New York Times*, wrote an article on the growing popularity of TV show DVDs. “DVD’s are perfect for fast-paced arc shows like ‘24,’ increasing the intensity of the action and introducing the sickly pleasures of binge-viewing.” But the word became widely used in 2013 after Netflix began releasing the full seasons at once, prompting the *Oxford Dictionary* to add it to the language and also short-list it as “Word of the Year” (the ultimate winner was “selfie”).

CHAPTER 28

WHO'S BOSS HERE?

On June 1, 2015, Tim Cook, CEO of Apple, the world's most valuable company, gave a speech at the annual dinner of a small Washington nonprofit named EPIC, the Electronic Privacy Information Center. Apple's leaders almost never give speeches in Washington, making Cook's appearance something of a surprise; though to be fair, he didn't actually show up at the dinner, but rather videoconferenced his way in. All the same, even more surprising was what he had to say. "I'm speaking to you from Silicon Valley, where some of the most prominent and successful companies have built their businesses by lulling their customers into complacency about their personal information," said Cook. "They're gobbling up everything they can learn about you and trying to monetize it. We think that's wrong."¹

Cook proceeded to lay into the very foundation of the attention merchant's model, which, since the early 2000s, had become dominant on the web. "You might like these so-called free services, but we don't think they're worth having your email, your search history and now even your family photos data mined and sold off for god knows what advertising purpose. And we think someday, customers will see this for what it is."² There was reason to suppose so, since "[a] few years ago, users of Internet services began to realize that when an online service is free, you're not the customer. You're the product."³

That phrase was, nearly verbatim, what critics had been saying about all advertising-supported media for decades. "In selling commercial time to advertisers to sell products," wrote Robin Anderson in the 1990s, "broadcasters are also selling a product—their audiences."⁴ Richard Serra, the artist and cultural critic, put it this way in 1973: "Television delivers people to an advertiser....It is the consumer who is consumed....You are delivered to the advertiser who is the customer. He consumes you."⁵

At the dinner, Cook's remarks were roundly applauded by the privacy advocates in attendance. They elicited less positive responses elsewhere. *The New York Times* accused Cook of ignoring "the substantial benefits that free, ad-supported services have brought to consumers worldwide."⁶ Mark Zuckerberg, CEO of Facebook, shot back, too. "What, you think because you're paying Apple that you're somehow in alignment with them? If you were in alignment with them, then they'd make their products a lot cheaper!"⁷ Cook was not claiming that Apple maximized value for what it charged, but then he had not appeared there to praise his own business model, only to bury someone else's. It didn't take an MBA to notice that Apple's defense of individual privacy was also an assault on the principal revenue scheme of its competitors.

Although it was a hardly subtle indictment of Facebook and Google, Cook's speech was also aimed at the entire web and what it had become. For behind the scenes, Apple had grown impatient with the practices of those publishing content on the web; they were loading up their sites with bloated advertisements, complex tracking technology, and other junk that was making the mobile web an unattractive and unpleasant experience. Sites froze, or were so crowded with come-ons that one could hardly find what one came to them for. None of it enhanced the use of Apple's devices.

The web, in theory, belongs to everyone, so no one likes an 800-pound gorilla telling them what to do there. But while Apple could be constitutionally controlling to a fault, in this case the wish to control the experience of its iPhone and iPad was a popular one. For as Apple had noticed, thanks to out-of-control advertising the mobile web was burning through the data plans, the battery life, not to mention the attention that all rightly belonged to its users, and violating their privacy for good measure. As the owner of the platform, and a company with no qualms about throwing its weight around, Apple was in a position to do something about the mobile web. Few who weren't attention merchants had cause to complain.

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Just a few days after Cook's speech, the company, quietly and wholly without ceremony, released what one analyst called its "atomic bomb." Buried in the documentation of its upcoming release of iOS 9, its latest operating system for the iPhone and iPad, Apple had included the following:

The new Safari release brings Content Blocking Safari Extensions to iOS. Content Blocking gives your extensions a fast and efficient way to block cookies, images, resources, pop-ups, and other content.⁸

The nonprofit Nieman Lab was the first to realize what this really meant: "Adblocking is coming to the iPhone."⁹ An adblocker is a program that detects that a web page carries advertisements—say, pop-ups, embedded audio and video, etc.—and prevents them from loading; it also usually blocks "tracking," that is, the sending of information to attention merchants like Google or Facebook, who build profiles of you based on where you go online. An iPhone that blocks ads works better and faster, consuming less power and bandwidth. It also chokes off the business model that has dominated the web ever since the year 2000 or so.

When September arrived, and with it, Apple's new operating system, it was worse than the web publishers and advertisers could have imagined. Adblockers, overnight, became far and away the most popular of apps. Millions of copies were downloaded, turning what had been a trend into a torrent. By the end of the year, an estimated 100 to 200 million Americans were now using some kind of adblocker some of the time. Apple's plot, if such it was, had paid off masterfully.

Attention merchants, advertisers, every company that hoped to make money reselling attention on the mobile web reacted to Apple's move with a mixture of anger, fear, and moral indignation. "Ad blocking is robbery, plain and simple," opined *Ad Age*.¹⁰ "Ad-blocking threatens democracy," pronounced the president of the Newspaper Association of America; the industry also released a study estimating that \$22 billion of revenue was being destroyed and warned of far worse.¹¹ "Every time you block an ad," wrote another editor, "what you're really blocking is food from entering a child's mouth."¹²

Mostly, the developers and users of adblockers were unfazed. One developer wrote that "web advertising

and behavioral tracking are out of control. They're unacceptably creepy, bloated, annoying, and insecure, and they're getting worse at an alarming pace."¹³ Others called it the last chance to fight what the web had become. James Williams, the Oxford ethicist, wrote that "ad blockers are one of the few tools that we as users have if we want to push back against the perverse design logic that has cannibalized the soul of the Web."¹⁴

The problem for the attention merchants is that once people get used to avoiding advertisements, it's hard to accept the terms of the old arrangement. The scales fall from one's eyes, and sitting there staring at product pitches doesn't make sense any longer. As Michael Wolff put it, "If people can avoid advertising, they do. And further: as soon as they do figure out how to circumvent advertising, they don't go back to it."¹⁵

Apple's maneuvers can be understood as a policing of its platform, which depends on payment. Hence, it could be seen taking the moral high ground on behalf of users, while also damaging its greatest rival, Google, at its point of greatest vulnerability. The adblocking campaign was, in the lingo, a twofer.

As for Google, it was left fighting with one hand tied behind its back; for it was now being haunted by the choice it had made at that fork in the road in 2000, when it went the way of the attention merchant. Android is, of course, a competitor of the iPhone, and thus Google's prime channel for accessing the minds of mobile users, a must-win cohort. But being wedded to an advertising model, Google was in no position to follow Apple and make Android the best experience it possibly could be. For the company was in a bind of its own making, stuck serving two masters, trying to enact the attention merchant's eternal balancing act between advertisers and users, at a time when the latter were losing patience.

In 1998, Larry Page and Sergey Brin had written that reliance on advertising would inevitably make it difficult to create the best possible product; in the late 2010s, in competition with Apple, they faced their own prophecy. Since the death of its founder, Steve Jobs, Apple had softened somewhat in its opposition to open platforms, and was able to use its enormous profits to build better products. Google had bested rivals like Yahoo!, who were hamstrung by their own excessive reliance on advertising, but over the late 2010s, in competition with Apple, Google got a taste of its own medicine.

Whether Apple was truly serving its users and business model and only incidentally exploiting Google's Achilles' heel is a matter of debate. But there is no doubt that the sentiment of revolt against the shabbiness of the mobile web was coming from an even deeper and broader place. Writing in the 1960s, Marshall McLuhan described the media as "technological extensions of man"; in the 2010s it had become more obvious than ever that technologies like the smartphone are not merely extensions but technological prosthetics, enhancements of our own capacities, which, by virtue of being constantly attached to us or present on our bodies, become a part of us. Whether called a "phone" or a "watch," the fact remains that "wearables" take the check-in habit begun with email and turn it into something akin to a bodily function, even as they measure the bodily functions that naturally occur. The ambitious efforts over the mid-2010s to cover the eyes, and create virtual realities, only served as a further example; a well-known photo of Mark Zuckerberg grinning as he strolled past hundreds of begoggled users caused no little alarm. It seems only natural that the closer a technology feels to being part of us, the more important that we trust it; the same goes for someone who is creating a virtual reality for you to inhabit. And so, in the coming decade, the attention merchants will need to tread very lightly as they come as close as one can to the human body. Nonetheless, adaptation is a remarkable thing, and if our history has shown anything, it is that what seems shocking to one generation is soon taken for granted by the next.