

[ DRAFT v5.2 ]

Speaking Truth to Technology:  
Creating Better Stories Together, in Three Acts.  
By Republic A

Republic: (1) a body of persons freely engaged in a specified activity; (2) a union in which supreme power resides in the citizens.

Prologue

Something is rotten in the state of Digital Media. We are ailing. The symptoms are severe, the prognosis dire. In the balance lay discourse,<sup>1</sup> democracy,<sup>2</sup> our decency,<sup>3</sup> our duty to our children,<sup>4</sup> and...

Act I. What's Our Story?

"After nourishment, shelter and companionship,  
stories are the thing we need most in the world." Philip Pullman.

Stories are the currency of humanity. They make us who we are, when we live them and when we tell them. We use them to understand each other, to connect with each other, to reason with each other, to collaborate with each other. At our core, we're moved by good stories.

What makes a good story? The bare essentials are deceptively simple: you need a listener and a speaker. Whether it's a hilarious joke meant to entertain, a painful experience recounted to teach, a meticulous argument crafted to persuade, an expression of creativity to capture the soul—at a minimum, a story needs a speaker and a listener to come to life.

Critically, a listener is someone who is listening. Breathing isn't listening. Hearing isn't listening either. Listening is a proactive endeavor of intention, and at its core it's about a profound choice. To listen is to agree to show up, to be open, to engage, to internalize, to feel, to think. The listener bestows upon the speaker both the gift and obligation of trust. It's a fleeting gift, revocable at whim; listener need only choose to stop listening. The obligation, however, is absolute and enduring; the listener rightly expects that her trust will never be exploited.

Stories can be far more interesting, of course. Speakers can deliver messages that aren't their own; we have authors to consider. *Ever tell your friend's story "for" her?* Likewise, all kinds of promoters work to bring authors, speakers and listeners together, and/or to enhance their storytelling experiences. *Ever put a friend on the spot, demanding that she tell your favorite story to the assembled crowd, only to repeatedly interrupt her story with your colorful embellishments?*

There's also the stage—the setting in which the tale is told. *That joke that killed at the bar last night is a bad idea in church this morning.* Finally, there's context. Relationships and history among the players—authors, speakers, listeners and promoters—can powerfully enhance the stories they create together. *Ever get a "briefing" from a friend about one of her colleagues before meeting that colleague for the first time? Did that briefing color the stories you later heard about your friend's colleague—or the stories that colleague told about your friend?*

A story well shared is itself a great story. Who came together, how and when and why? What roles did they play, and how did those roles shift over the life of the story? What did they experience? How were they changed?

Broadway or your child's kindergarten play; the chance encounter on your flight or the Board presentation you've been planning for years; the things we want to believe and the things we know we must not; dinner alone in front of the television and the grand banquet in your honor; inspiration, education, persuasion, advocacy, meaning, joy; your wedding day and your daily commute; kazoo solo and symphony. We live an infinity of stories together, nested and intertwined and always evolving.

Our stories make us who we are, when we live them and when we tell them. What's our story?

## Act II. A Broken Promise and Three Lies

"We have to fix the internet. After 40 years,  
it has begun to corrode, both itself and us." Walter Isaacson.<sup>5</sup>

The internet was supposed to help advertisers tell their stories. Instead, it is ruining our stories with bad advertising.

At its best, advertising engages listeners in good stories—about products and services, about unmet needs and unknown wants, about visions for our companies and our societies. The core endeavor is to reach the right person with the right message at the right time, in order to move or inform or persuade.

It's a historically vexing endeavor. A billboard might reach a lot of the "right" people, but it will reach everyone else on the road, too. Likewise, a halftime television commercial during the big game is wasted on fans who use the restroom instead of watching it. Finally, there are as many "right" messages as there are listeners; the "right" message is as much about context as it is about content.

The oft-quoted 19th century quip widely attributed to Philadelphia retailer John Wanamaker sums it up nicely: “Half the money I spend on advertising is wasted; the trouble is I don’t know which half.”

The internet was supposed to change all that.

For the first time, advertisers could speak directly to known consumers at known “places” at known times, tailoring their messages at the moment of delivery. In the 90s, we called it “the promise of one-to-one marketing”<sup>6</sup> and an early and enthusiastic wave of entrepreneurs and innovators set forth to ensure its fulfillment.<sup>7</sup>

They were prolific. Ad Networks thrived early, aggregating and integrating supply sources on behalf of advertisers. Later, Ad Exchanges leveraged industry-standard protocols<sup>8</sup> to deliver access programmatically at scale across those fractured networks. Meanwhile, demand-side platforms (“DSPs”) were created, giving advertisers the tools to rationalize holistically their overarching digital strategies in the increasingly complex buying landscape.<sup>9</sup>

The independent digital marketing industry was born, and in its beginnings, it did good. By any measure, digital marketing vastly outperformed its pre-internet ancestors. The money poured in, and the industry grew rapidly.

But an industry, like a city, can only grow as great as its architecture will allow.<sup>10</sup> And the best laid architectures of mice and men, like their plans, go awry.

#### *A Tale of Two Intermediaries*

As the independent digital marketing industry matured, there was literally no way for its numerous constituents truly to synchronize their computational efforts. As a result, in the words of Satoshi Nakamoto (the name used by the unknown person or people who invented bitcoin): we transact with businesses that “must be wary of their customers, hassling them for more information than they would otherwise need,” and “[a] certain percentage of fraud is accepted as unavoidable.”<sup>11</sup> Nakamoto’s legendary 2008 bitcoin white paper lamented the fact that “no mechanism exist[ed] to [transact] over a communications channel without a trusted party” in the middle of things, and it brilliantly imagined a communications network “based on cryptographic proof instead of trust [of intermediaries], allowing any two willing parties to transact directly with each other without the need for [such] a trusted third party.”<sup>12</sup>

The digital marketing industry was built long before such a communications network was possible, however—long before the invention of bitcoin and its more powerful successor, Ethereum,<sup>13</sup> which was “designed less to facilitate electronic payments than to allow people to run applications on top of [a] blockchain.”<sup>14</sup> The industry is thus forced to rely upon third-party “coordinators” and/or arbitrary third-party sources of “truth.” Without these proprietary “patches,” the internet pipes will inevitably leak under the pressure; they weren’t built to carry today’s roiling stew of advertising technologies. For this reason, rooted most deeply in mathematics itself, so long as it rests upon existing architecture, the digital marketing industry will always yield discrepancies.<sup>15</sup> They’re an inevitable consequence of that architecture.

The consumer—or more precisely, her device—follows a digital marketing game of telephone, back and forth, interacting with a series of independent technologies in serial, using different languages to communicate along the way. Each provider in the sequence builds its own record of the transaction, though at best it hears from only its adjacent neighbors on the chain. Any number of intervening events can block the intended communications path at any point.<sup>16</sup> At the end of it all, the constituents compare their notes and hope their divergences are manageable.<sup>17</sup> For the most part, they usually are. It's a miracle it works so well.

But not for long, and it has been too long already. The industry has become too complex, too big, too fragmented. The best of intentions and ambitions have driven feverish, idiosyncratic innovation in the absence of real progress fixing the industry's collective, existential structural challenges. In the process, digital marketing "intermediaries" have proliferated in number and scope.<sup>18</sup>

They take many different forms. One class of intermediaries, the "verification" providers, purports to sell the previously-referenced "patches," claiming to mitigate the industry's pipes' leaks. Some of these intermediaries actually aim to centrally reconcile disparate computational streams and generate a collective truth.<sup>19</sup> Most, however, merely substitute their proprietary "truth"<sup>20</sup> for their customers' disparate versions of that truth—no version of which is necessarily "untrue" in any meaningful sense of that word.

Others endeavor boldly to address our universal architectural challenges with proprietary pinpoint solutions. Products to effectively "attribute" credit for an advertiser's success achieving a particular business objective. Products to recognize the "identity" of an advertiser's known customer wherever she electronically roams. Products to manage consumers' "privacy" amid the chaos. They sell tools to make the internet work the way it should, so long as they're involved—and getting paid.

Still other intermediaries continue to heap new functionality upon the rotten foundations of our deficient architecture. New formats, new channels, new incentives, new algorithms, they bend and bend and bend the pipes, though we all know they've already begun to break.

There's little holding them together. Strip the nuances away, and it's basically the same JavaScript of the 1990s that enables digital marketing today. It's the same, tired cookie, too. And the same HTTP.

It's a bigger, more complicated world, though. With the profusion of intermediaries, the ecosystem has expanded exponentially. The number and variety of disjointed technology platforms has expanded right along with it, as has the number and significance of our discrepancies. Our international space station, built of the collective efforts of countless individuals and organizations, is held together with paperclips, rubber bands, string and chewing gum. It's holding together, but it's time to start thinking about Plan B.

The warnings are major and unambiguous: Advertisers rightly want to understand whom they're paying when, how much and for what. But our technology cannot always provide good answers. To improve upon and pay for the valuable content they produce, publishers rightly want to deliver better and more effective messages. But our technology cannot always provide good answers. We consumers want to know who has access to our personal information, when, how, and to what end. But our technology cannot always provide good answers.

Everyone should demand that our personal data is protected, that our sovereignty over that data is respected, and that we're not being exploited or manipulated or deceived. They should mean it. It's the right thing to do, it's the smart thing to do, and there's way too much at stake to pretend otherwise, like our humanity, our society and our governments. But our technology offers no such guarantees. Not in good faith.

There are too many data leaks, too many single points of failure, too many unaddressed risks. Our technology is too vulnerable, to those inside our industry and those beyond it, too vulnerable to negligence, recklessness and intentional wrongdoing alike.

Like Shinar's Tower of Babel, we're building higher and higher, but it's all bound to come crashing down. Is it any wonder, then, that the independent digital marketing industry "has been beleaguered by criticism," facing turmoil and cynicism and skepticism and doubt?<sup>21</sup> Any wonder that advertisers are "painfully aware of these issues and of the need for the industry to address them?"<sup>22</sup> Any wonder that "the ad tech industry is in an 'existential crisis?'"<sup>23</sup>

In the words of the Chief Brand Officer of "the nation's and world's biggest advertiser," Procter & Gamble: "'It's time to grow up. It's time for action.'"<sup>24</sup> These are, we're all hoping, the worst of times.

For the intermediaries of very different lands, however, these are the best of times. We'll call them Intermediaries, not intermediaries, to distinguish them from their uncapitalized cousins. They're more commonly known as "walled gardens," or more simply, Facebook and Google (with their ranks of subsidiaries).

Intermediaries rule walled cities of monopoly absolutely and skillfully, surveilling every aspect of every moment within their borders; tracking anyone who dare enter long after they've departed and far beyond bounds of jurisdiction; imposing taxes that are lucrative beyond imagination. The rulers are thriving, driven not by the welfare of their subjects, but by the jealousy of their rivalries. Their residents are suffering, but the Intermediaries are indifferent, though those residents are the unknowing source of all the wealth.

We are their residents, and the problem is the walls. They need to be torn down.

### *A Heist in Three Lies*

Our "technology giants have come to dominate digital markets."<sup>25</sup> They have "gain[ed] huge market shares and translate[d] their market power into enormous profits. Their success has brought tremendous benefits to users—and grave dangers to societies and economies."<sup>26</sup>

These "'Superstar firms'"<sup>27</sup> have thrived by "harvesting the largely free labor" that generates "user-provided content."<sup>28</sup> We users "undervalue the personal data [we] provide and most [of us] don't even know [our] data is being shared with third parties."<sup>29</sup> We lack "alternative services offering to share the economic value of [our] content/data" with us, however, so the "economic value of content & data flows largely for free to the big data platforms."<sup>30</sup> In short, these giants, which "may well be the most powerful and valuable corporations in the history of capitalism,"<sup>31</sup> have "learned how to turn your life into data without asking. ...[O]ur ignorance is their bliss."<sup>32</sup>

Intermediaries pretend they're in the listening business, but they're not. In truth, the power of a good story is their greatest threat.<sup>33</sup>

Intermediaries cast the fundamental flaw of centralization as a feature, not a bug. They profit by renting their consumers to their advertising customers, so their very existence is premised upon their purported ability to add value in that interaction. If their advertising customers could reach consumers directly, these intermediaries would have nothing to sell, so they'd better keep them apart at all costs. It's that simple.<sup>34</sup>

They keep us apart with a clever pitch: We have a magic black box, they say, in which our paying advertising customers can speak to anonymous consumers of our "free" products and services, and we make storytelling magic happen inside that box. We understand our consumers deeply because we know how they use our products and how they interact with each other, the Intermediaries tell their advertisers, and as a result we can vigilantly guard those consumers' interests while ensuring they'll listen to the messages you're peddling.

It's a one-stop-story-shop, they promise, complete with all of the trust and context anyone could ever need. Forget better speakers, better stages, better promoters; check off the context and history boxes in one convenient interface; and don't worry that you're not actually "meeting" anyone, but yelling into our black box instead. We're the only thing you need. It works. Trust us.

It's a terrific pitch, and it has been terrifically successful. But it is built of three lies.

First Lie: They know who we are.

Intermediaries claim they've gleaned a deep and nuanced understanding of who we are, premised upon a careful study of our engagement with their products and services. In essence, they suggest, they know who we are because we have told them.

Not quite. It's a stretch to say we intentionally "tell" these Intermediaries anything at all. "[U]sing 'dark patterns,' or designs and user interfaces" that "trick users into unintentionally taking an action," Intermediaries "nudge people 'toward the least privacy friendly options to a degree that [is] unethical.'"<sup>35</sup> Put charitably, we should "questio[n] whether consent given in these circumstances is in fact explicit, informed and freely given."<sup>36</sup> Numerous consumer advocacy groups don't think so, and they're "calling on the Federal Trade Commission to 'investigate the misleading and manipulative tactics of Google and Facebook.'"<sup>37</sup>

Intermediaries mostly "learn" about us by eavesdropping. On our searches and social posts; our emails, texts, chats, phone calls and video; our physical location; our purchase and credit histories; our contacts and calendars; in our homes and our cars; with our colleagues and our friends and our families and our children; when we're working, when we're playing, when we're sleeping. They take whatever information they can get their hands on, every minute of every hour of every day.<sup>38</sup>

Most of us still can't even begin to conceive what these Intermediaries know about us. Even after we've explicitly "deleted" the information, by the way, and sometimes before we've ever "saved" it in the first instance.<sup>39</sup> None of us has really begun to confront the "millions of nefarious uses"<sup>40</sup> for this data. Even though those uses can have staggering consequences, by the way, and they're no secret.<sup>41</sup>

Nobody is safe. "Increasingly, every transaction, every website viewed, and every action online generates a data trail swept into the data platforms online," and your efforts to keep your data confidential "are almost completely useless."<sup>42</sup> Because of "the amount of personal data already out

there, even anonymous users are reidentified relatively easily by comparing the language or stray information posted under any pseudonym to information already known about individual consumers. And even where a user abandons all use of 'cookies' online, [Intermediaries] can 'fingerprint' their web browser by cataloging the unique configuration of plugins, settings and other features of a browser."<sup>43</sup>

It gets worse: Intermediaries aren't hunting our data alone. Their insatiable hunger has birthed, in the words of Apple chief executive Tim Cook, "'secondary markets for your information [that] exist in a shadow economy that's largely unchecked—out of sight of consumers, regulators and lawmakers.'"<sup>44</sup> In those shadows, shady actors fight a "never-ending 'high-stakes information war'"<sup>45</sup> to get to know us better. Every second. Out in the open, Intermediaries shamelessly pressure anyone and everyone to join the feeding frenzy.<sup>46</sup>

Most fundamentally, none of it actually works as advertised, by design. What these Intermediaries sell isn't really knowledge at all. It's hunches, "the result of the automated analysis of huge amounts of data."<sup>47</sup> But far too often, the fact that Intermediaries even have hunches to sell is itself profoundly problematic.<sup>48</sup> Likewise, errors in their careless, dollar-driven hunching—which are by no means uncommon—do great harm.<sup>49</sup>

No matter, hunches are great for the bottom line; because they can sell hunches, Intermediaries can sell a lot more ads. And it's not just ads; they sell their hunchywork, hastily concocted from snippets of our lives, far farther and far wider than most of us realize.<sup>50</sup>

Lastly, if they really had to get to know us, among other things, Intermediaries would quickly come to know that many of "us" are not humans. Selling ads "viewed" by bots is big business if you can get it, and Intermediaries have gotten a lot of it. Many of their "users" are really "'fake' profiles, created for 'click farm' purposes by unscrupulous third parties."<sup>51</sup> (A 2017 study showed, for example, that "there are more 18 year old men using Facebook today than there are 18 year old men living on Earth,"<sup>52</sup> and under mounting pressure, in the first half of 2018 alone, "Facebook disabled nearly 1.3 billion 'fake' accounts, ... many of them bots 'with the intent of spreading spam or conducting illicit activities such as scams.'"<sup>53</sup>) When Intermediaries are regularly confronted with this inconvenient truth, they simply "deny, delay, deflect, dissemble, ... only [coming] clean when forced to" and "reveal[ing] as little information as possible."<sup>54</sup>

Second Lie: We trust them.

Most audacious, Intermediaries purport to rent their advertising customers our trust. That's complete nonsense. Our trust is not theirs to rent (if they had it to begin with); trust is not transferrable without knowing consent.

Moreover, our trust is something they've never actually earned. Indeed, it's something they've never seemed to care about at all. They've built businesses of unprecedented power and meteoric "valuations" by exploiting our personal data, never bothering to explain how and when and why and with whom, never considering for a moment that their bargain is legitimate only if we knowingly participate. We are not participating knowingly.

They amassed our data through surveillance and spying, and they sell their customers their hunches about things they cannot and should not know. All while hoarding an obscene amount of information about each of us (even when we've told them not to) that could do us great damage.<sup>55</sup>

Adding insult to injury, they store our “comprehensive personal data ... in databases that are enticing targets for hackers,” and offer defenses that are as lackadaisical as they are ineffective.<sup>56</sup> “Reports of major data breaches are mounting,”<sup>57</sup> and “[m]illions of users have had their private data misused or stolen.”<sup>58</sup>

Intermediaries shamelessly, egregiously and repeatedly abuse our trust, like, in the recent words of the New York Times, “a cheating romantic partner who was caught betraying us and apologized — only to be caught again weeks later.”<sup>59</sup> The abuses are getting worse and more frequent, not better, because the perpetrators have yet to face meaningful consequences,<sup>60</sup> and because betraying our trust is hugely profitable.

Intermediaries are trust liabilities, not trust assets. Conscious consumers are increasingly careful: we are extra skeptical of the barrage of advertising thrust upon us by Intermediaries in particular; we are increasingly aware of the proprietary algorithms that shape that advertising with creepy and intrusive predictions derived from the flimsiest of premises; and we want it all to stop. That is, “we’re sick of ads and [we’re] increasingly adept at tuning them out.”<sup>61</sup> Thoughtful brands with a commitment to corporate responsibility should flee walled gardens running, not walking.

### Third Lie: We’re listening.

The greatest harm the Intermediaries have wrought, and their greatest enduring threat, is pure sleight-of-hand.

By their own admission, Intermediaries are in the “attention” business; at bottom, that’s what they claim from us, our “attention.” Whether we’re using “social” media; searching for the most intimate of information we need; chasing another rabbit video down a never-ending YouTube hole; or buying whatever we want for delivery right away; Intermediaries want as much of our attention as they can get so they can sell it (and eavesdrop).

It’s a tricky thing, the attention business.

Intermediaries will tell you they’re in the listening business. They’ll say they bring us all together, help us share our stories, help us make new stories together. In their story, they make us better, and by doing so they make us better listeners.

Of course, that’s not true. Intermediaries are in the attention business, not the listening business, and anyone who knows anything about the attention business knows that that’s not how it works.<sup>62</sup> (Anyone who has ever spent a serious amount of time on Facebook or YouTube knows the same thing.)

The truth? Intermediaries have “discovered that they [can] use [our] data not only to know our behavior but also to shape it.” It is “no longer enough” for them “to automate information flows about us; the goal became to automate us.”<sup>63</sup>

We’re inside the black box, mice on a giant spinning wheel, an army of psychologists sorting out better and better ways to make us run.<sup>64</sup> Longer, faster, more—“upward of 5,000 ads per day,” every day.<sup>65</sup> That’s the attention business, kids.<sup>66</sup> Keep that wheel spinning. RT/Like/Click to buy the gadget in the moment, in the Moment®.

Speaking of kids, ever wonder why so many of Silicon Valley's prized builders of ubiquitous listening machinery won't let their children anywhere near it? "A wariness that has been slowly brewing is turning into a regionwide consensus: The benefits of screens as a learning tool are overblown, and the risks for addiction and stunting development seem high."<sup>67</sup> Hence, the "most sought-after private school in Silicon Valley, the Waldorf School of the Peninsula, bans technical devices for the under-11s and teaches the children of eBay, Apple, Uber and Google staff to make go-karts, knit and cook. Facebook's Mark Zuckerberg wants his daughters to read Dr. Seuss books and play outside rather than use Messenger Kids. Steve Jobs's children had strict limits on how much technology they used at home. It's astonishing if you think about it: the more money you make out of the tech industry, the more you appear to shield your family from its effects."<sup>68</sup>

Put plainly: For your kids, it's fine. But for *their* kids? No way.

Anyone paying attention to our politics or our morals or our discourse or our sanity knows all of these things to be true. They must. And because they do, they're angry about it. Rightly so.

Intermediaries are not making us better. They're making us angrier and crazier;<sup>69</sup> more distracted, more distractible, and more depressed; more polarized; more pliant. Worse friends, neighbors, students, citizens, parents, children, lovers. Worse debaters.<sup>70</sup> Worse conversationalists.<sup>71</sup> Worse storytellers.

Intermediaries are making us better targets for advertising and helping "corporate institutions to discriminate and exploit [us] as categorical groups."<sup>72</sup> They're making advertising "better" in the sense that weapons of greater lethality are "better."

It gets worse: Advertisers are complicit. Whether they understand it or not, whether they admit it or not, whether they care, advertisers are complicit. Complicit in the obvious sense that they create the attention demand—they buy the weapons, to extend the metaphor.

But it's deeper than that. You get a far greater yield on attention, it turns out, if you can blur the lines between advertising and conversation, fudge the distinction between capitalist enterprise and good friend, interweave your commerce in the fabric of the "stories" getting all the attention, work your way into the game of likes and shares and snaps and retweets and great moments. Confusion sells. Delusion does, too.

The Intermediaries and their psychologists have perfected these dark arts. They've taught them to their customers, the advertisers, who have become the new masters. For this, advertisers are complicit. We are becoming aware.

The worst part: Advertisers are not alone; there are other new masters. Among their best customers the Intermediaries count authoritative regimes and their despots; scammers, sycophants and sleaze, crooks, cranks and criminals;<sup>73</sup> spies and their spymasters; Presidential campaigns and Presidents. Read a newspaper lately? (Odds are against it.) The headlines are awful: "Bad actors have had a field day exploiting Facebook and Google, leveraging user trust to spread disinformation and hate speech, to suppress voting and to polarize citizens in many countries,"<sup>74</sup> and "if governments fail to act, they will leave key parts of Western economies and democracies vulnerable to sudden failures."<sup>75</sup>

“Let’s be dead clear: Purveyors of propaganda used these powerful platforms exactly as they were designed to be used. It should not surprise us that what happened was entirely avoidable and pretty much in plain sight of those who ran the” Intermediaries.<sup>76</sup> “The attention economy [is] structurally set up to undermine the human will,”<sup>77</sup> and Intermediaries, in the words of Germany’s economy minister, are playing a game of “brutal information capitalism.”<sup>78</sup> Our “increasing loss of control of private data,” the “new oil’ of the information age,” is “leaving [us] vulnerable.”<sup>79</sup>

The bottom line? It’s booming. [Spoiler alert: There’s hardly a vegetable in sight, but it isn’t the sodas and sugary snacks you need to worry about.]

Intermediaries are not in the listening business. They’ve created attention, the fentanyl of advertising. Louder, everywhere, insidious, 50 times stronger than heroine. And they’ll sell it to anyone who’s buying. (Even bots’ attention.)

That’s the sleight-of-hand: We’re not listening, we’re hooked. And we’re hurting.<sup>80</sup> “Our parents and grandparents had a similar day of reckoning with tobacco. Now it’s our turn, this time with Internet platforms.”<sup>81</sup>

### Act III. Building Better Stories Together

“The Next Big Thing offers opportunities to rethink the architecture of the Internet.” Roger McNamee.<sup>82</sup>

What if we build a new internet?

Not a whole new internet, just a network designed to create good stories. An application-specific network—what would that look like?

That’s simple: using our network, authors and speakers and listeners and promoters and stages all come together to build stories of value. Value any of them can share, in any permutation.

With trust. Real trust.

History and context make stories better. There’s nothing wrong with that. An author, a speaker, a promoter, even the venue, any of these storytakers might have their own story with the listener—their own facts or context or history. With the listener’s consent, with her trust, these old stories can and should be used to make new stories better.

Trust is a fleeting gift, however, revocable at whim. The listener rightly expects that her trust will never be exploited without consequence. In our network of stories, her trust is truly and completely revocable, always. That means all downstream consequences are enforced when trust that has been delegated (with true consent) is revoked. In our network, trust has real value, and it can be lost.<sup>83</sup>

Our network is a new republic of sorts, everyone “freely engaged” in “union” in the “specified activity” of storytelling, “supreme power residing in the citizens,” the listeners, us.

Can we make it and keep it? What do we need to build this Republic?

The independent constituents of a good story need truly to be able to synchronize their computational efforts. Without resort to a third-party “coordinator.” Without an imposed, arbitrary truth.

This “has only recently become possible, thanks to technologies arising from the blockchain”<sup>84</sup> that “answer [a] question we’ve been asking since the dawn of the internet age: How can we collectively trust what happens online?”<sup>85</sup> By creating this collective trust, blockchain will solve the problems plaguing the independent digital marketing industry. It will do far more:

“[F]or the first time now in human history, people everywhere can trust each other and transact” without intermediaries.<sup>86</sup> “Instead of placing our trust in corporations, we can place our trust in community-owned and -operated software, transforming the internet’s governing principle from ‘don’t be evil’ back to ‘can’t be evil.’”<sup>87</sup> We can “change the way that wealth gets created ... by democratizing wealth creation, engaging more people in the economy, and then ensuring that they get fair compensation.”<sup>88</sup>

Sounds like a wonderful world for listeners, but does it work for everyone else?

What about publishers?

“Publishers find themselves becoming commodity content suppliers in a sea of undifferentiated content.”<sup>89</sup> Republic A is a gamechanger; we’re turning the tide.

For Intermediaries, the producers of content are colonies to conquer. They install their black boxes on publishers’ websites and apps, inserting themselves between the content and its consumers, sucking out as much history and context as they can (all just “data” for them). Publishers lose out in the process, more value usurped.

It does major damage, not just in dollars. We’ve all seen it happen. Their very livelihood in the squeeze of overwhelming pressures, producers of content have been forced to accommodate the booming trade in attention. The result is less journalism, more click-bait; less reading, more instant sharing; less reflection, more reaction; less real news, more #fakenews.<sup>90</sup> It’s bad for the publishing business and bad for the world.<sup>91</sup>

Publishers will thrive when we put them back in the story—back in our stories.

What about the advertisers?

Advertisers win big, too. Real big. None of them set out to get into the fentanyl trade. Most of them have already “been thinking about it and self-evaluating to say, “If I need to stand out from the clutter of marketers, I need to have a strong, meaningful connection.””<sup>92</sup> Since well before Wanamaker and long after we’re all gone, advertisers only want to tell us their stories; they want real people really to listen.

Advertising will “become more effective on the decentralized web” when “digital advertisers learn how to listen for signals from individuals who [(1)] have control over the flow of advertising into their browsers, apps and devices and [(2)] send signals of interest and disinterest to companies and markets, which are ‘much better signals than tracking-based ad tech can ever guess at.’”<sup>93</sup> Republic A

makes this possible. We'll teach advertisers how, and this new knowledge will be tomorrow's light, irradiating today's dark arts.

Advertising will cost a lot less, too. Intermediaries don't come cheap—far from it. They don't share the wealth, either. In Republic A, a lot less will go a lot further, and to the right people.

Imagine the stories that advertisers and listeners will build together in Republic A, nobody standing in their way. Better stories. Valuable stories.

What about the intermediaries?

In Republic A, many of the intermediaries serve no purpose. Like the ones charging for "verification" or "identity" or "privacy" or "attribution." We get all of those things by default. They're intractable problems on the open internet, but they're solutions built into the very foundation of our Republic, inherent and transparent facts of life.

"The toll keepers and middle men [will] be cut out."<sup>94</sup>

Still, plenty of intermediaries deliver meaningful value. We want entrepreneurs and innovators to keep dreaming up new formats, new channels, new incentives, new algorithms. We want our stories to continue evolving as our inventions overcome our limitations. We want to catalyze progress in our Republic, not stifle it. But we want real progress. We want entrepreneurs and innovators to stop heaping new functionality on old, rotten architecture.

\* \* \*

There's room in our Republic for anyone who wants to build good stories. That's why we're building it. Immense rewards, too; just imagine what magic will happen when we channel Intermediaries' astronomical fortunes into the enterprise of good stories. Imagine what will happen when we reapportion that wealth.

Does "reapportion" mean give it to the listeners? Part of it, sure. But not necessarily all of it and not always, no. That wouldn't work, and it doesn't make any sense either.

Republic A is for listeners, authors, speakers, promoters, and the world's great stages. It's for all of them, so they can meet and collaborate and make good stories together. The value they make is their own, and it's theirs to share as they desire, story by story. Together, they will reapportion the wealth that has been siphoned from our stories. Together, they will build a true Republic.

What about the Intermediaries—what will become of them?

Republic A has no rulers and no monopolies. It has no surveillance, no spying, no secrets. Our common purpose is good stories, and good stories do good—without manipulation or deception or obfuscation or disrespect. Good stories earn and honor trust.

You can't peddle attention fentanyl in Republic A. Our architecture can't comprehend that trade, let alone allow it. In this respect, Intermediaries are on notice: there's no room for you in Republic A. Not yet, at least.

Unlike their gardens, our Republic has no walls. There's no delineation between love and hate, because there is no hate. All are welcome to join in the common purpose of good stories, and everyone in the endeavor stands to benefit.

The Intermediaries, too, if they'll join us. They're prolific innovators and unrivaled entrepreneurs, after all, and we need those in Republic A. Maybe they will. Maybe they'll leave their walled gardens behind, their booming cities. Maybe we'll build a better nation together instead. A better world. A true Republic.

That would be a great story.

## Epilogue

"The rules of the game, the rules that govern all of this technology, matter a lot." Juan Benet.<sup>95</sup>

I know this story, you're thinking. I know how it ends: The biggest winner will be the "republic," Republic A, not its citizens. They'll take their pennies from our stories, they're only the next to steal from us. Meet the new boss, same as always.

No. That's not a good story—not good enough to be the story of Republic A, the world's network of stories. There has to be something bigger, something better.

Here's the deal: It's going to take a lot of investment to build Republic A, and we'll raise that money by promising to return it with more. So, we'll *need* to make some money to make this work. We *want* to make some money for our families, too, and we're not ashamed of that.<sup>96</sup> But only *some*.

When we're starting out, there won't be any profit. But as the world awakes and starts creating stories in Republic A, the pennies will pile up fast. Republic A will take a cut for its team and investors for some number of years—say, a decade. It will be a big cut at first, but it will shrink down along the way as the volume of Republic A stories soars.

Specifically: The team and investors earn 100% of the profit in year 1, 90% in year 2, 80% in year 3, ... 10% in year 10, 0% in year 11 and forever after.

What do we do with the rest, in year 2 and forever after? Easy: use it to do good in this world. Republic A will fund good works. What a wonderful thing to do with those pennies that help make our stories happen. What a wonderful common purpose for a new republic.

Put it to work doing what? The obvious answer is climate change, as in the existential threat to the human species. Half of the money will go to fight climate change, first by funding research to recapture carbon and develop sustainable energy, then (if/when we're lucky enough to have that then) to provide such energy to people who need it but can't pay for it. Done.

The other half goes to feed children. And clothe them. Give them healthcare. Clean water. Cure diseases. All of it for Adults, too. Improve education. Fight discrimination. Civil Rights. Press freedom. Fix governments. Fund microloans. Fund the arts. Change the world. Do it all.

What, exactly, is all, and how much does each of the “alls” get? Republic A’s citizens will decide, of course. Listener’s will vote the value of the stories they’ve listened to, the value they’ve created in common union. It’s their value after all, their stories. It’s their Republic, and they will keep it.

Republic A is our gift to you. Thank you for listening.

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<sup>1</sup> “‘Hate speech is really hard,’ said Alex Schultz, Facebook’s VP of analytics, in a briefing with reporters. ‘There’s nuance, there’s context. The technology just isn’t there to really understand all of that, let alone in a long long list of languages.’ ... Unlike nudity or terrorism-related content, ... hate speech is still primarily discovered by humans, not software programs. Only 38 percent of the hate speech Facebook removed in Q1 was first identified by algorithms,” a percentage “much smaller than some of the other content categories Facebook looks for. That makes sense, as ‘hate speech’ is much more subjective than nudity. ... The fact that Facebook still has trouble detecting it without human help shows that the problem won’t go away anytime soon.” Kurt Wagner and Rani Molla, “Facebook has disabled almost 1.3 billion fake accounts over the past six months” (Recode, May 15, 2018) (available at <https://www.recode.net/2018/5/15/17349790/facebook-mark-zuckerberg-fake-accounts-content-policy-update>).

<sup>2</sup> “Competition among surveillance capitalists has produced startling innovations that challenge the foundations of a democratic society.” Shoshana Zuboff, “Surveillance capitalism’ has gone rogue. We must curb its excesses.” (The Washington Post, Jan. 24, 2019) (available at [https://www.washingtonpost.com/opinions/surveillance-capitalism-has-gone-rogue-we-must-curb-its-excesses/2019/01/24/be463f48-1ffa-11e9-9145-3f74070bbdb9\\_story.html](https://www.washingtonpost.com/opinions/surveillance-capitalism-has-gone-rogue-we-must-curb-its-excesses/2019/01/24/be463f48-1ffa-11e9-9145-3f74070bbdb9_story.html)); see generally Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Public Affairs, Jan. 15, 2019).

As explained by Roger McNamee, a longtime tech investor and evangelist who was an early adviser to Mark Zuckerberg and an early investor in Facebook: “Democracy depends on shared facts and values. It depends on deliberation and the rule of law. It depends on having a free press and other countervailing forces to hold the powerful accountable.” Roger McNamee, “I Mentored Mark Zuckerberg. I Loved Facebook. But I Can’t Stay Silent About What’s Happening.” (Time Magazine, Jan. 17, 2019) (available at <http://time.com/5505441/mark-zuckerberg-mentor-facebook-downfall/>), an excerpt from his book, *Zucked: Waking Up to the Facebook Catastrophe* (Penguin Random House, Feb. 5, 2019) (hereinafter “McNamee Excerpt”).

“On Facebook, information and disinformation look the same; the only difference is that disinformation generates more revenue, so it gets better treatment. To Facebook, facts are not an absolute; they are a choice to be left initially to users and their friends but then magnified by algorithms to promote engagement.” Id.

“In the same vein, Facebook’s algorithms promote extreme messages over neutral ones, which can elevate disinformation over information, conspiracy theories over facts. Like-minded people can share their views, but they can also block out any fact or perspective with which they disagree. ... Showing users only posts they agree with was good for Facebook’s bottom line, but some research showed it also increased polarization and, as we learned, harmed democracy. ... Recent history suggests that the threat to democracy is real.” Id.

Stressing (among several other sins) “evidence that disinformation and fake news had spread over Facebook and may have influenced a British referendum or an election in the U.S.,” McNamee courageously acknowledged: “Recently, Facebook has done some things that are truly horrible, and I can no longer excuse its behavior. ... I am disappointed. I am embarrassed. I am ashamed.” Id.

<sup>3</sup> “Facebook remains a threat to the powerless around the world. The company’s Free Basics service has brought Internet service to poor people in roughly 60 countries, but at the cost of massive social disruption. Lack of language skills and cultural insensitivity have blinded Facebook to the ways in which its platform can be used to harm defenseless minorities. This has already played out with deadly outcomes in Sri Lanka and Myanmar.” Id.

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<sup>4</sup> “A growing percentage of children prefer the hyperstimulation of virtual experiences to the real world. Products like Instagram empower bullies. Texting has replaced conversation for many kids. It’s hard to know how this will turn out, but some medical researchers have raised alarms, noting that we have allowed unsupervised psychological experiments on millions of people.” McNamee Excerpt.

<sup>5</sup> Steven Johnson, “Beyond the Bitcoin Bubble” (The New York Times, January 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>).

<sup>6</sup> For example, see “The One to One Future: Building Relationships One Customer at a Time” by Don Peppers and Martha Rogers (Currency Doubleday, 1993) (encouraging marketers to “collaborate with each customer, one at a time, just as you now work with individual suppliers or marketing partners”).

<sup>7</sup> In 1999, Republic A’s Isaac Lidsky founded ru4.com. Later renamed [x+1] and acquired by Rocket Fuel in 2014, ru4 was among the first ad tech providers to dynamically target ads with real-time, user-specific content optimization.

<sup>8</sup> The Internet Advertising Bureau (IAB) “assembled technology leaders from both the Supply and Demand sides in November 2010 to develop a new API specification for companies interested in an open protocol for the automated trading of digital media across a broader range of platforms, devices, and advertising solutions.” A “way of transacting media that allows an individual ad impression to be put up for bid in real-time” through “a programmatic on-the-spot auction,” this industry standard, formerly called the OpenRTB Consortium, is governed by the IAB’s Real-Time Bidding (RTB) Project. See <http://www.iab.com/guidelines/real-time-bidding-rtb-project>.

<sup>9</sup> In 2007, “Joe Zawadzki, Erich Wasserman and Greg Williams came together to start the industry’s first demand-side platform,” founding MediaMath and creating its core trading system, Terminal One. Zawadzki, “MediaMath’s Story” (Jul. 14, 2016) (available at <http://www.mediamath.com/blog/mediamaths-story-our-founder-joe-zawadzki-explains/>).

<sup>10</sup> For an early take on the metaphor of “code as architecture” vis-à-vis the internet, see Lawrence Lessig’s Code (Basic Books, 1999).

<sup>11</sup> Satoshi Nakamoto, Bitcoin: A Peer-to-Peer Electronic Cash System. October 31, 2008.

<sup>12</sup> Id. “The Nakamoto white paper explains the basics of ‘mining’ data into a block, then using a hash (a time-stamped link) to chain those blocks together across a decentralized network of ‘nodes’ that verify each and every transaction. The other key innovation in the white paper is using what’s known as the proof-of-work (PoW) model to create distributed ‘trustless’ consensus and solve the double-spend problem (ensuring cryptocurrency isn’t spent more than once).” Rob Marvin, “Blockchain: The Invisible Technology That’s Changing the World,” PC Mag, August 29, 2017. (available at <https://www.pcmag.com/article/351486/blockchain-the-invisible-technology-thats-changing-the-wor>).

<sup>13</sup> In January 2014, Joe Lubin met Vitalik Buterin “at a meeting for crypto enthusiasts in downtown Toronto.” Adam Piore, “New Internet: Blockchain Technology Could Help Us Take Back Our Data from Facebook, Google and Amazon” (Newsweek, November 19, 2018) (available at <https://www.newsweek.com/2018/11/16/new-internet-blockchain-technology-could-help-us-take-back-our-data-facebook-1222860.html>). Buterin was “a 19-year-old math savant” who had invented Ethereum, “a wholly new blockchain application—similar to but far more ambitious than the [bitcoin] distributed ledger created by Nakamoto.” Id. Lubin brilliantly saw in Ethereum the means to create the “global transformation he’d envisioned with the introduction of bitcoin.” Id. He later founded ConsenSys, “a global blockchain technology company building the infrastructure, applications, and practices that enable a decentralized world.” ConsenSys Website (available at <http://consensys.net/>). See generally David Ryan Polgar, “ConsenSys Founder Joe Lubin on the Future of Blockchain” (Hackernoon Telegraph, Jul. 19, 2018) (available at <https://hackernoon.com/joe-lubin-on-the-future-of-blockchain-d058aa57641b>).

<sup>14</sup> Steven Johnson, “Beyond the Bitcoin Bubble” (The New York Times, January 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>).

<sup>15</sup> The term “discrepancy” can connote “something fishy” in industry usage. That’s unfortunate. Discrepancies are bound to arise even when ethical actors work in good faith to coordinate their activities; they’re a function of bad technology, not bad intentions. The latter is a source of fraud, not “discrepancy.”

<sup>16</sup> A user might navigate away from a site or application, abandon her device entirely, or experience myriad technological “obstacles” that frustrate the transaction midstream, such as unintentional bugs or the intentional interposition of an ad blocker. “Ad blocking software is more popular than ever, with 86 million users blocking \$20 billion worth of ads each year in the U.S. alone.” Ryan Holmes, “We Now See 5,000 Ads A Day ... And It’s Getting Worse” (LinkedIn, Feb. 19, 2019) (available at <https://www.linkedin.com/pulse/have-we-reached-peak-ad-social-media-ryan-holmes/>).

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<sup>17</sup> The IAB “recommends a tolerance of 10% for discrepancy based on the publisher’s figures.” Interactive Advertising Bureau, “Discrepancy Buster” (available at [https://www.iabuk.com/sites/default/files/IABDiscrepancyBusterFinal\\_6546.pdf](https://www.iabuk.com/sites/default/files/IABDiscrepancyBusterFinal_6546.pdf)). For a low-volume, immature market, this level of divergence might be acceptable. For today’s digital marketing industry, however, it should be unacceptable.

<sup>18</sup> While the ad networks, ad exchanges and DSPs previously discussed are technically “intermediaries” as well, they’re a special kind. The first and the last act as direct agents on behalf of “principals”—publishers in the case of networks, the advertiser itself (or its agency) in the case of DSPs. Exchanges provide an independent market in which these direct agents can trade inventory, much like a stock or commodities exchange. Unlike these three, the intermediaries contemplated hereinafter cannot claim such a direct nexus to the underlying advertising transaction itself; they’re farther removed.

<sup>19</sup> Some even use blockchain technology while doing it, though it’s not always entirely clear why.

<sup>20</sup> Most of these providers buy their arbitrary truth from yet another intermediary. Notably, almost all of them buy data from the same company, Zentrack.

<sup>21</sup> Michael Solomon, “Can the Ad Industry Come Together to Fix Programmatic?” (available at <http://www.mediaaudit.com/media-watchdog/can-the-ad-industry-come-together-to-fix-programmatic/>).

<sup>22</sup> Id.

<sup>23</sup> Id. (quoting Michael Barrett, president and CEO of Rubicon Project).

<sup>24</sup> Jack Neff, “P&G Tells Digital to Clean Up, Lays Down New Rules for Agencies and Ad Tech to Get Paid” (Ad Age, Jan. 29, 2017) (quoting Marc Pritchard) (available at <https://adage.com/article/media/p-g-s-pritchard-calls-digital-grow-up-new-rules/307742/>).

<sup>25</sup> Viktor Mayer-Schönberger and Thomas Ramege, “A Big Choice for Big Tech: Share Data or Suffer the Consequences” (Foreign Affairs, September/October 2018 ) (available at <https://www.foreignaffairs.com/articles/world/2018-08-13/big-choice-big-tech>).

<sup>26</sup> Id. (quoting economist David Autor).

<sup>27</sup> Id. (quoting economist David Autor).

<sup>28</sup> Nathan Newman, author of Net Loss: Internet Profits, Private Profits and the Costs to Community (2002), in “How Big Data Enables Economic Harm to Consumers, Especially to Low-Income and Other Vulnerable Sectors of the Population,” Comments to the United States Federal Trade Commission (available at [https://www.ftc.gov/system/files/documents/public\\_comments/2014/08/00015-92370.pdf](https://www.ftc.gov/system/files/documents/public_comments/2014/08/00015-92370.pdf)) (hereinafter “Newman’s 2014 FTC Comments”).

<sup>29</sup> Id.

<sup>30</sup> Id.; see also Zuboff, “Surveillance capitalism’ has gone rogue. We must curb its excesses.” (“Surveillance capitalism now claims private human experience as free raw material for translation into behavioral predictions that are bought and sold in a new kind of private marketplace. And it takes place almost completely without our knowledge.”).

<sup>31</sup> Steven Johnson, “Beyond the Bitcoin Bubble” (The New York Times, January 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>). (Explaining that “one single corporation owns the data that define social identity for two billion people today — and one single person, Mark Zuckerberg, holds the majority of the voting power in that corporation”).

<sup>32</sup> Zuboff, “Surveillance capitalism’ has gone rogue. We must curb its excesses.”

<sup>33</sup> Lisa Lacy, “What A Decentralized Web Means for Digital Advertising” (Adweek, October 22, 2018) (available at <https://www.adweek.com/programmatic/what-a-decentralized-web-means-for-digital-advertising/>) (“[D]ecentralization—or re-decentralization—could pose a genuine threat to the duopoly. (Or it could be the duopoly is its own biggest threat.)”).

<sup>34</sup> If “we have this thing where people control their data,” then “all of a sudden, what do the apps have to work with? If people don’t make it accessible, the app won’t be able to do much of anything. ... Now you have a new model where everyone owns their own data—it’s a whole new world. If this does become more pervasive, advertising [through the digital monopolies] as we know it is done.” Lisa Lacy, “What A Decentralized Web Means for Digital Advertising” (Adweek, October 22, 2018) (available at <https://www.adweek.com/programmatic/what-a-decentralized-web-means-for-digital-advertising/>) (quoting Dewayne Hendricks, chief executive of Tetherless Access).

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<sup>35</sup> Abrar Al-Heeti, "Facebook, Google, Microsoft use 'dark patterns' to trick people to give up data, report says" (CNET, June 28, 2018) ("For example, Facebook users who wanted to opt out of a facial recognition feature are prompted with a warning saying 'if you keep face recognition turned off, we won't be able to use this technology if a stranger uses your photo to impersonate you.' This framing and wording ... nudges users toward a decision by making them feel like the alternative is 'ethically questionable or risky.'") (quoting a consumer advocacy report by the Norwegian Consumer Council).

<sup>36</sup> Id.

<sup>37</sup> Id.

<sup>38</sup> A recent Guardian piece detailed "just how much of your information the likes of Facebook and Google store about you without you even realising it." Dylan Curran, "Are you ready? Here is all the data Facebook and Google have on you," (Mar. 30, 2018) (available at <https://www.theguardian.com/commentisfree/2018/mar/28/all-the-data-facebook-google-has-on-you-privacy>). Read the piece and you'll likely "freak yourself out." Some highlights:

Google records "your bookmarks, emails, contacts, your Google Drive files, ... your YouTube videos, the photos you've taken on your phone, the businesses you've bought from, the products you've bought through Google, ... data from your calendar, your Google hangout sessions, your location history, the music you listen to, the Google books you've purchased, the Google groups you're in, the websites you've created, the phones you've owned, the pages you've shared, how many steps you walk in a day ... ." The company also "stores information on every app and extension you use. They know how often you use them, where you use them, and who you use them to interact with. That means they know who you talk to on Facebook, what countries are you speaking with, what time you go to sleep." Google also "stores your location ... every time you turn on your phone" and has "a timeline of where you've been from the very first day you started using Google." And because it "stores all of your YouTube history," Google "probably know[s] whether you're going to be a parent soon, if you're a conservative, if you're a progressive, if you're Jewish, Christian, or Muslim, if you're feeling depressed or suicidal, if you're anorexic ... ."

Google keeps "information you deleted." For example, Curran explained that his "Google Drive ... includes files I explicitly deleted including my résumé, my monthly budget, and all the code, files and websites I've ever made, and even my PGP private key, which I deleted, that I use to encrypt emails." Similarly, Google stored "all of the steps I've ever taken, any time I walked anywhere, and all the times I've recorded any meditation/yoga/workouts I've done (I deleted this information and revoked Google Fit's permissions)." Google also has "all the photos ever taken with my phone, broken down by year, and includes metadata of when and where I took the photos," and it keeps "[e]very email I've ever sent, that's been sent to me, including the ones I deleted or were categorized as spam."

Facebook stores (1) "every message you've ever sent or been sent, every file you've ever sent or been sent, all the contacts in your phone, and all the audio messages you've ever sent or been sent;" (2) "every time you log in to Facebook, where you logged in from, what time, and from what device;" (3) "all the applications you've ever had connected to your Facebook account;" (4) "what it thinks you might be interested in based off the things you've liked and what you and your friends talk about." The data they collect "includes tracking where you are, what applications you have installed, when you use them, what you use them for, access to your webcam and microphone at any time, your contacts, your emails, your calendar, your call history, ... the games you play, your photos and videos, your music, your search history, your browsing history, even what radio stations you listen to."

Facebook not only saves data you've explicitly deleted, but it also stores data you never intended to share in the first instance. For example, the company keeps "photos users uploaded [and] decided not to post." Josh Constine, "Facebook bug exposed up to 6.8M users' unposted photos to apps" (TechCrunch, Dec. 14, 2018) (available at <https://techcrunch.com/2018/12/14/facebook-photo-bug/>). Remarkably, this particular practice came to light when Facebook "revealed a Photo API bug gave app developers too much access to the photos of up to 5.6 million users," Including, "most worryingly, photos they'd uploaded to Facebook but never shared." Id.

<sup>39</sup> Id.

<sup>40</sup> Curran, "Are you ready? Here is all the data Facebook and Google have on you."

<sup>41</sup> "You say you're not a terrorist. Then how come you were googling Isis? Work at Google and you're suspicious of your wife? Perfect, just look up her location and search history for the last 10 years. Manage to gain access to someone's Google account? Perfect, you have a chronological diary of everything that person has done for the last 10 years." Id.

<sup>42</sup> Newman's 2014 FTC Comments.

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<sup>43</sup> Id.

<sup>44</sup> Zuboff, "Surveillance capitalism' has gone rogue. We must curb its excesses." The global data market is expected to grow to \$26 billion in 2019. "Global Data Market Size: 2017-2019" (*OnAudience.com*, Aug. 2018) (available at [https://www.onaudience.com/files/OnAudience.com\\_Global\\_Data\\_Market\\_Size\\_2017-2019.pdf](https://www.onaudience.com/files/OnAudience.com_Global_Data_Market_Size_2017-2019.pdf)). It is unclear whether this figure includes sales by Google or Facebook, both of which bundle data costs with media costs. If they're not included in that figure, the true size of the market is far larger.

<sup>45</sup> Kara Swisher, "How You Can Help Fight the Information Wars: Silicon Valley won't save us. We're on our own." *New York Times*, Dec. 12, 2018) (quoting "the disturbing term used in one of [the] Senate reports that Renée DiResta, a disinformation expert and director of research at New Knowledge, worked on") (available at: <https://www.nytimes.com/2018/12/18/opinion/russia-disinformation-facebook.html>).

<sup>46</sup> For example, even "as Facebook faces several investigations over its ties to political analytics firm Cambridge Analytica, which accessed data on as many [as] 87 million Facebook users without their consent," the company nonetheless "asked large U.S. banks to share detailed financial information about their customers, including card transactions and checking-account balances." Notably, the company "asked banks for information about where their users are shopping with their debit and credit cards outside of purchases they make using Facebook Messenger." To justify the intrusion, Facebook argued the data "could be used to offer services that might entice users to spend more time on Messenger" and "deepen user engagement," such as "a feature that would show its users their checking-account balances" and, rather ironically, "fraud alerts. ... Google and Amazon.com Inc. also have asked banks to share data." Emily Glazer, Deepa Seetharaman, and AnnaMaria Andriotis, "Facebook to Banks: Give Us Your Data, We'll Give You Our Users" (*The Wall Street Journal*, Aug. 6, 2018) (available at <https://www.wsj.com/articles/facebook-to-banks-give-us-your-data-well-give-you-our-users-1533564049>).

<sup>47</sup> Mayer-Schönberger and Ramge, "A Big Choice for Big Tech: Share Data or Suffer the Consequences" ("Innovation is shifting to data-driven machine learning. Insights are no longer the product solely of human ingenuity.").

<sup>48</sup> By "operating their own, dominant decision assistants," Intermediaries "undo the resilience of traditional, decentralized markets. ... [T]he company controls all the information about customer preferences and transactions, and the company uses that data to help its own decision assistant learn. Buyers still make individual decisions, but they are greatly influenced both by explicit recommendations and by the ways in which options are filtered and presented. These markets are much closer to centrally planned systems than to resilient and decentralized traditional marketplaces. ... [G]iven the complexity of the algorithms that recommend products, it's always tempting for these companies to manipulate the markets they operate. ... And a company's motives don't always matter: the hoarding of data makes it far easier to systematically influence consumers' decisions even without intending to do so." Id. (noting that "the European Commission fined Google 2.4 billion euros after finding that the company had distorted its search results to favor its own shopping service").

<sup>49</sup> Consider, for example, Gillian Brockell's December 12, 2018 open letter to tech companies, as published by the *Washington Post*, which concludes: "Please, tech companies, I implore you: if your algorithms are smart enough to realize that I was pregnant, or that I've given birth, then surely they can be smart enough to realize that my baby died, and advertise to me accordingly — or maybe, just maybe, not at all."

<sup>50</sup> E.g., McNamee Excerpt ("Facebook sometimes traded the data to get better business deals.")

<sup>51</sup> Simon Kemp, "Facebook demographics analysis reveals several startling truths" (*The Next Web*, Mar. 27, 2017) (describing a disproportionate share of profiles that "fit neatly into the [categories] commonly used by marketers for ad targeting, which would make these profiles more attractive and valuable") (available at <https://thenextweb.com/facebook/2017/03/22/facebook-demographics-analysis-startling-truths/>).

<sup>52</sup> Id.

<sup>53</sup> Kurt Wagner and Rani Molla, "Facebook has disabled almost 1.3 billion fake accounts over the past six months: Facebook will begin publishing more data about how many posts it takes down." (*Recode*, May 15, 2018) (quoting a Facebook statement) (available at: <https://www.recode.net/2018/5/15/17349790/facebook-mark-zuckerberg-fake-accounts-content-policy-update>).

<sup>54</sup> McNamee Excerpt (describing the "playbook [Facebook] had run since its founding").

<sup>55</sup> See, e.g., McNamee Excerpt ("Facebook remains a threat to privacy. The company's commitment to surveillance would make an intelligence agency proud, but not so its handling of data.").

<sup>56</sup> Lisa Lacy, "What A Decentralized Web Means for Digital Advertising" (*Adweek*, October 22, 2018) (available at <https://www.adweek.com/programmatic/what-a-decentralized-web-means-for-digital-advertising/>).

<sup>57</sup> Id.

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<sup>58</sup> Chris Dixon, "Blockchain Can Wrest the Internet from Corporations' Grasp" (Wired, January 4, 2019) (available at <https://www.wired.com/story/how-blockchain-can-wrest-the-internet-from-corporations/>). ("Users who depend on proprietary platforms ... have to worry about data getting stolen or misused, privacy policies changing, intrusive advertising, and more.)

<sup>59</sup> Brian X. Chen, "The Tech That Was Fixed in 2018 and the Tech That Still Needs Fixing" (The New York Times, December 26, 2018) (available at <https://www.nytimes.com/2018/12/26/technology/personaltech/tech-fix-2018.html>).

<sup>60</sup> As one example of many, consider this notable scandal: "Last spring, soon after Facebook acknowledged that the data of tens of millions of its users had improperly been obtained by the political consulting firm Cambridge Analytica, ... consumer advocates and even former [FTC] officials were clamoring for tough action against Facebook, arguing that it had violated an earlier FTC consent decree barring it from misleading users about how their information was shared." But "In a previously undisclosed memo," the FTC, "echoing Facebook's own argument," instead "cautioned that Facebook was not responsible for the consulting firm's reported abuses." "Data Abuses Prompt Calls For Overseer To Bare Teeth" (The New York Times, Dec. 30, 2018) (available at <https://businessmirror.com.ph/2019/01/01/data-abuses-prompt-calls-for-overseer-to-bare-teeth/>).

<sup>61</sup> Ryan Holmes, "We Now See 5,000 Ads A Day ... And It's Getting Worse" (LinkedIn, Feb. 19, 2019) (available at <https://www.linkedin.com/pulse/have-we-reached-peak-ad-social-media-ryan-holmes/>) (arguing that "diversifying revenue streams—finding a hybrid of advertising, subscription and transaction-based revenue—may be the surest path to long time viability and financial success" for online businesses).

<sup>62</sup> "The business model depends on advertising, which in turn depends on manipulating the attention of users so they see more ads." McNamee Excerpt.

<sup>63</sup> Zuboff, "Surveillance capitalism' has gone rogue. We must curb its excesses."

<sup>64</sup> "In the world of growth hacking, users are a metric, not people. Every action a user took gave Facebook a better understanding of that user—and of that user's friends—enabling the company to make tiny 'improvements' in the user experience every day, which is to say it got better at manipulating the attention of users." McNamee Excerpt.

<sup>65</sup> Ryan Holmes, "We Now See 5,000 Ads A Day ... And It's Getting Worse" (LinkedIn, Feb. 19, 2019) (available at <https://www.linkedin.com/pulse/have-we-reached-peak-ad-social-media-ryan-holmes/>). "Back in the '70s, the average consumer in the U.S. saw around 500 ads per day. That number has since increased by a factor of 10." Id.

<sup>66</sup> "Every pixel on every screen of every Internet app has been tuned to influence users' behavior. Not every user can be influenced all the time, but nearly all users can be influenced some of the time." McNamee Excerpt.

<sup>67</sup> Nellie Bowles, "A Dark Consensus About Screens and Kids Begins to Emerge in Silicon Valley" (The New York Times, Oct. 26, 2018) (available at <https://www.nytimes.com/2018/10/26/style/phones-children-silicon-valley.html>).

<sup>68</sup> Alice Thomson, "Help Kids to Kick Social Media Addiction" (Times of London, Mar. 14, 2018) (available at <https://www.thetimes.co.uk/article/help-kids-to-kick-social-media-addiction-x7xjqh9rf>).

<sup>69</sup> One of the best ways to manipulate attention is to appeal to outrage and fear, emotions that increase engagement." McNamee Excerpt.

<sup>70</sup> See Julia Dhar, "How to disagree productively and find common ground" (TED@BCG, Oct. 2018) (available at [https://www.ted.com/talks/julia\\_dhar\\_how\\_to\\_disagree\\_productively\\_and\\_find\\_common\\_ground](https://www.ted.com/talks/julia_dhar_how_to_disagree_productively_and_find_common_ground)).

<sup>71</sup> See Isaac Lidsky, "Mastering Your Reality: Celeste Headlee" (Dec. 7, 2017) (available at <http://www.lidsky.com/mastering-your-reality-celeste-headlee/>).

<sup>72</sup> Newman's 2014 FTC Comments ("Advertisers can deliver ads not just to the users most likely to be interested in the product but can tailor prices for individual consumers in ways that can maximize the revenue extracted from each purchaser. ... Consumers can be profiled and offered higher prices, unaware that other customers are getting better deals, while financially struggling houses are tagged as vulnerable and offered economically exploitative services such as payday and subprime loans.").

<sup>73</sup> "Behavioral profiling is used by especially seedy companies to target a variety of financial and economic scams at vulnerable populations most likely to fall prey to their offers." Newman's 2014 FTC Comments. For example, the Intermediaries "continued to benefit from scam 'mortgage modification' and payday lender advertisers exploiting financially distressed households in the wake of the financial crisis." Id.

<sup>74</sup> McNamee Excerpt. See also Kara Swisher, "How You Can Help Fight the Information Wars: Silicon Valley won't save us. We're on our own." ("The Russian trolls have been really good customers of Facebook, Google and Twitter.") (discussing "reports released this week by the Senate Intelligence Committee on efforts by the Russian

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agents to spread fake stories and discourage Americans from voting”); Mayer-Schönberger and Ramge, “A Big Choice for Big Tech: Share Data or Suffer the Consequences” (“Just as healthy markets rely on people making independent decisions, democratic systems are founded on the individual choices made by voters. Yet today, much of public discourse is shaped by a few companies with exclusive access to vast quantities of voter data. Ignoring the problem is no longer an option.”).

<sup>75</sup> Mayer-Schönberger and Ramge, “A Big Choice for Big Tech: Share Data or Suffer the Consequences.”

<sup>76</sup> Kara Swisher, “How You Can Help Fight the Information Wars: Silicon Valley won’t save us. We’re on our own.” (The New York Times, Dec. 12, 2018) (available at <https://www.nytimes.com/2018/12/18/opinion/russia-disinformation-facebook.html>) (Lest there be any doubt, “the tech companies were not particularly helpful in trying to work with government investigators to unravel the mess, asserting that they were in the dark about the situation, both as the deception was happening and well after it was pointed out to them.” Id.

<sup>77</sup> Steven Johnson, “Beyond the Bitcoin Bubble” (The New York Times, Jan. 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>).

<sup>78</sup> Newman’s 2014 FTC Comments (quoting Sigmar Gabriel).

<sup>79</sup> Id.

<sup>80</sup> “In the most extreme cases, users develop behavioral addictions that can lower their quality of life and that of family members, co-workers and close friends. We don’t know the prevalence of behavioral addictions to the Internet, but anecdotally they seem widespread. Millions of people check their phone first thing in the morning. For most, the big question is whether they do so before they pee or while they are peeing. Far too many people report difficulty sleeping because they cannot stop using their phone or tablet. It is possible that most of Facebook’s daily users have some level of behavioral addiction. The problem with addiction is that it deprives the victim of agency. Even when an addict understands the potential for harm, he or she cannot help but continue the activity.” McNamee Excerpt.

<sup>81</sup> Id.; see also Zuboff, “Surveillance capitalism’ has gone rogue. We must curb its excesses.” (“Our democracy has successfully confronted many excesses of unchecked capitalism, outlawing child labor, uninspected food and unfair wages. Today we face a similar challenge in curbing the excesses of a rogue surveillance capitalism. It is not the work of a day or a year, but it is necessary work, and we must be up to the task, because the alternative promises dangerous consequences for human freedom and democracy.”).

<sup>82</sup> McNamee Excerpt. See also Johnson, “Beyond the Bitcoin Bubble” (“If you think the internet is not working in its current incarnation, you can’t change the system through think-pieces and [government] regulations alone. You need new code.”).

<sup>83</sup> “Users need to own their data and have absolute control over how it gets used,” and they “have a right to know the name of every organization and person who has their data. ... No one should be able to use a user’s data in any way without explicit, prior consent.” McNamee Excerpt.

<sup>84</sup> Chris Dixon, “Blockchain Can Wrest the Internet from Corporations’ Grasp,” Wired, January 4, 2019 (available at <https://www.wired.com/story/how-blockchain-can-wrest-the-internet-from-corporations/>).

<sup>85</sup> Rob Marvin, “Blockchain: The Invisible Technology That’s Changing the World,” PC Mag, August 29, 2017. (available at <https://www.pcmag.com/article/351486/blockchain-the-invisible-technology-thats-changing-the-wor>).

<sup>86</sup> Don Tapscott TED Talk, “How the Blockchain is Changing Money and Business.” (TEDSummit, June 2016) (available at [https://www.ted.com/talks/don\\_tapscott\\_how\\_the\\_blockchain\\_is\\_changing\\_money\\_and\\_business?language=en](https://www.ted.com/talks/don_tapscott_how_the_blockchain_is_changing_money_and_business?language=en)).

<sup>87</sup> Chris Dixon, “Blockchain Can Wrest the Internet from Corporations’ Grasp,” Wired, January 4, 2019 (available at <https://www.wired.com/story/how-blockchain-can-wrest-the-internet-from-corporations/>). See also Steven Johnson, “Beyond the Bitcoin Bubble” (The New York Times, January 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>). (“The real promise of [blockchain] technologies, many of their evangelists believe, lies ... in replacing much of what we now think of as the internet, while at the same time returning the online world to a more decentralized and egalitarian system. If you believe the evangelists, the blockchain is the future. But it is also a way of getting back to the internet’s roots.”).

<sup>88</sup> Don Tapscott TED Talk, “How the Blockchain is Changing Money and Business.” (TEDSummit, June 2016) (available at [https://www.ted.com/talks/don\\_tapscott\\_how\\_the\\_blockchain\\_is\\_changing\\_money\\_and\\_business?language=en](https://www.ted.com/talks/don_tapscott_how_the_blockchain_is_changing_money_and_business?language=en)).

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<sup>89</sup> Steven Johnson, "Beyond the Bitcoin Bubble" (The New York Times, January 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>). (quoting Brad Burnham, a managing partner at Union Square Ventures).

<sup>90</sup> "Facebook (along with Google and Twitter) has undercut the free press from two directions: it has eroded the economics of journalism and then overwhelmed it with disinformation." McNamee Excerpt.

<sup>91</sup> For more on this theme, see Isaac Lidsky, "Let's Seek To Understand," Ciudad de las Ideas, Puebla, Mexico, Nov. 16, 2018 (Available at (<https://bit.ly/2TGg7CW>)).

<sup>92</sup> Lisa Lacy, "What A Decentralized Web Means for Digital Advertising, Adweek, October 22, 2018. (quoting Sargi Mann, EVP of Digital Strategy and Investments at Havas Media Group) (available at <https://www.adweek.com/programmatic/what-a-decentralized-web-means-for-digital-advertising/>).

<sup>93</sup> Ibid. (quoting Doc Searls, a fellow at the Center for Information Technology and Society at the University of California, Santa Barbara).

<sup>94</sup> Adam Piore, "New Internet: Blockchain Technology Could Help Us Take Back Our Data from Facebook, Google and Amazon" (Newsweek, November 19, 2018) (available at <https://www.newsweek.com/2018/11/16/new-internet-blockchain-technology-could-help-us-take-back-our-data-facebook-1222860.html>).

<sup>95</sup> Steven Johnson, "Beyond the Bitcoin Bubble" (The New York Times, January 16, 2018) (available at <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>).

<sup>96</sup> "In America, if you want to solve a problem, it helps to incorporate the profit motive, which we can do by shifting the focus of technology from exploiting the weakest links in human psychology to a commitment to empowering users." McNamee Excerpt.