Cognizant

EVERY MOVE YOUMAKE PRIVACY IN THE AGE OF THE ALGORITHM

With every click we make online, our interests, preferences, intent and even location are revealed to those we trust – and those we don't know. Here's how business leaders, futurists and policymakers can compete in today's technologically-intensive era while staying away from the dark side of data privacy.

By Robert H. Brown and Ben Pring





CLASSIFIED MEMORANDUM To: From: Subject: To Whom It May Concern: There is no such thing as privacy Regards,

The Director

May 2018

Executive Summary

Traffic congestion marked by thick red lines on a Google Map. A browser that remembers your credit card code. Reconnecting with a long-lost friend via social media. The benefits of sharing our personal information - tailored recommendations, customized experiences, lightning-fast convenience - are everywhere.

But when news headlines break on terrorists hunted down by drones tracking their cell phones,1 a suspect caught at a concert through facial recognition technology² or an alleged serial killer apprehended using a relative's DNA data from a website³ - you can feel the tables turning on our attitudes toward privacy and how much we're willing to blithely share. (Bad guys gone, yay! But can that "eye in the sky" see me? - Hmmm)

As described in our 2014 book Code Halos: How the Digital Lives of People, Things and Organizations Are Changing the Rules of Business, every online click, like and swipe reveals our interests, preferences, intent and even location to anyone equipped to collect these data swarms. 4 Since that time, the growing ubiquity of location-based sensors, facial recognition and social and mobile computing have made consumers something of a chassis within this world, and subject to vast - and lucrative - analysis every day. While our Code Halos have brought us great joy, happiness (and a surfeit of cardboard boxes) – and given rise to a new class of business leader (Bezos, Zuckerberg, et al) - their "dark side" is also becoming more apparent, and the potential for dystopian nightmare is increasingly palpable.

As The Police sang in the '80s, "every move you make" in the online world is visible to not only those we trust but also those we don't know.5

Today's digital age is the proverbial double-edged sword, and our privacy is increasingly the hilt of that sword. Never has this been more true than in light of the revelation that users' Facebook data was harvested and exploited for political profiling, without these users' direct consent.6 If data is the new oil, the fervor over such revelations is a gusher that needs to be contained. And like the *Deepwater Horizon* and Exxon Valdez did for the oil industry,⁷ regulation for the tech industry looms large. After 25 years of requlatory-light experimentation with the "information superhighway," policy makers are now beginning to lay down the "rules of the road" pertaining to data privacy.

As Europe's General Data Protection Regulation (GDPR) goes into effect, 8 the first phase of the Internet - the Wild West Days - comes to an end, and a new world order hinges on how companies and governments respond to the issue of privacy. For business leaders around the world, the work for today and tomorrow is to get the right ethics baked into the new models early - while there is still time.

What privacy means now - and has meant in the past and will in the future - will be intensely debated among those who believe it's gone with the wind or will continue to be an indelible virtue in the age of the algorithm.

New guidance from the Cognizant Center for the Future of Work examines this important moment of transition and provides analysis, advice and insight for organizations around the world that need to respond to the changes ahead:

- "Privacy today is dead; long live privacy." Despite assertions to the contrary, privacy is not dead - it's just undergoing a new level of scrutiny. What privacy means now - and has meant in the past and will in the future - will be intensely debated among those who believe it's gone with the wind or will continue to be an indelible virtue in the age of the algorithm.
- GDPR is nigh learn it, live it, love it: The EU's privacy framework may represent the stuff of your red-tape nightmares. But the fact is, all companies will need to master the new algebra of personally-identifiable information mandated by GDPR to win in the future of work.
- The absence of trust will lead to antitrust: Trust has underwritten the rich history of liberal economies, and has long been a crucial element for making the wheels of commerce spin. The basis for trust - such as generally accepted conventions and a common understanding of "the truth" - however, has been called into question of late. Quaint notions like "a person's word is their bond" have given way to dark data, fake news and deep-fakes-gone-wild, 10 which will accelerate government legislation and antitrust measures.
- Prepare for the Internet to become the "Splinternet": Attitudes toward data privacy appear to be splintering among different regions of the world, namely Europe, the U.S. and China. Geopolitical responses to issues of security, trust and data sovereignty will define what our world looks like, how it operates, who wins and who loses, over the generations to come.
- Give your customers and all their data and metadata a delete button: While digital regulations will evolve at their own pace across geographies, they're a lagging indicator. Leading companies - non-creepy companies - know they're ethically obligated to let people and organizations "check out," that is, easily delete their data (and metadata) anytime they want.
- Consider #deletefacebook as your preemptive pressure test for privacy: In the digital era, privacy's impact on shareholders and stakeholders alike will be equally important. The enduring lesson is that you can't bet the brand by playing poker with customers' privacy.

In congressional testimony recently, Senator Dick Durbin asked Facebook CEO Mark Zuckerberg if he'd share the name of his hotel where he stayed the night before and the names of people he'd messaged in the last week. "Senator, I would probably not choose to do that publicly here," Zuckerberg said. To which Durbin responded, "I think that maybe is what this is all about: your right to privacy." ¹¹

Simply put, you and your teams need to ask, "Can we answer the 'Durbin Question' on privacy going forward?"

Maybe your own personal attitude to how your data, and data about you, is used will be a crucial determinant of how and where you want to live in the future. Of who you shop from, of whom you favor with your dollar, pound, euro or yen.

Is your organization prepared for the future of privacy? Is it ready for the consumer backlash that inevitably follows misuse of personal data, wittingly or otherwise? What price are organizations, individuals and governments willing to pay to protect consumers' online privacy?

This report provides an in-depth perspective into the impact of privacy on businesses, geopolitics and public policy, as well as guidance that corporate strategists will need before formalizing a business model that's relevant in the data-driven economy.

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PRIVACY OF THE PAST, PRESENT AND FUTURE

The privacy debate of today is a glass-half-empty, glass-half-full scenario: As soon as technophiles rejoice that "We've never had it so good," a cautionary note is sounded by the less enthusiastic: "The world – and our privacy – is falling apart!"

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We believe the answer is somewhere in the middle. The key lies in answering the question: What does privacy mean in the age of the new machines? How do we guard for it? And have we ever really lived in a "golden age" of privacy at all?

Privacy of the Past

New technologies have historically roiled societies with the privacy conundrum at times of great change: de'Medici agents lurked around every corner in the streets of Florence during the Renaissance, ¹² and covert ninjas operated throughout feudal Japan. Long before we experienced barroom brawls with "glassholes,"¹³ French peasants in the 1800s killed surveyors mapping the country with theodolites¹⁴ (the Michelin Guide's compilation of outstanding restaurants - thank them).

While your thoughts may hearken back to simpler, more "secure and private" times - aptly captured by TV shows such as The Andy Griffith Show's Mayberry of the 1950s or the small hamlet of the Vicar of Dibley - privacy in the small towns of yesteryear was pretty feeble. Money - especially for personal items like technology - could be tight. Families regularly shared televisions, radios and telephone party lines. Some of our grandparents might remember clustering in a living room watching somebody's new TV with half the neighborhood in attendance.

Or, consider a character like Georg von Trapp in The Sound of Music, who expressed shock that telegrams in "his" Austria are no longer private, as jackbooted troops marched all around him. A viewer might have thought, "Those poor people - thank heaven that invasion of privacy could never happen in my modern, civilized country."

Privacy of the Present

Today, it's arguable there's never been a better time to be alive. The technologies, industries, ways of living, working, creating, making and communicating are made possible by the new machines of the digital era. 15 Amid these advancements, though, one tawdry story after another shouts for our attention in an unending cycle of 24-hour news. After becoming accustomed to the seemingly fun, friendly and free escapism of social media – "So I'm getting ads everywhere – big deal – I've seen commercials everywhere all my life" - the seemingly innocuous price is starting to show its teeth. Bit-by-bit, the tone has gone from saying hi to your Aunt Mabel to a harsh metastasis of uninformed opinions, cat memes and political rants.

Much Ado About Nothing?

While some may say privacy is dead, Facebook's stock price following the Cambridge Analytica revelation says otherwise.

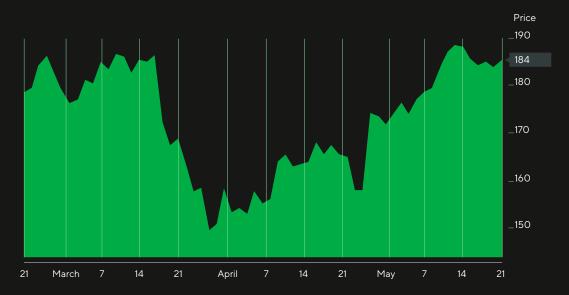


Figure 1

And then it got "weaponized." Whistleblowers revealed in March that personal information from an estimated 87 million Facebook users - mostly friends-of-friends - was collected by Cambridge Analytica, a political data analysis firm that had worked for Donald Trump's presidential campaign.16 Facebook instantly lost \$80 billion in market capitalization (see Figure 1); #deletefacebook rocketed across Twitter; and Cambridge Analytica filed for bankruptcy protection and is shutting down.¹⁷

When anxieties and neuroses are exploited by turning data-driven, psychological profiles into targets of propaganda, it borders on - if not crosses - an ethical line into a betrayal of trust. (Moreover, anecdotes from authoritarian regimes of the past speak of informants betraying information about friends and neighbors. In the case of Cambridge Analytica, people's friends were given up, unwittingly.)

Some may retort "Privacy today is dead. Get used to it Grandpa. Next." Not so fast - privacy is not dead. If it were, then the fervor over Facebook wouldn't be such a big deal. The public outcry has been so big, and the white-hot heat lamps of a congressional testimony so glaring, that - while these dealings may be old news to privacy experts – it's a first real wake-up call to members of the public regarding their level of exposure.

The debate rages, presenting huge societal and political issues that are poised for ongoing and intensified debate, and it raises important technological, social and ethical considerations. And whether you're a teenage gamer or an 80-year-old grandparent of one, even a laissez-faire approach to privacy requires a bedrock of rules, policies and procedures (just like we do with global airport metal detectors and caller-ID). The problem is, even with the elongated run-up to the GDPR, nobody - yet - has gotten a solid handle on how to regulate all of this at the global level.

Privacy of the Future

The strategic challenge for the future of the digital economy¹⁸ is to keep data open and free but, simultaneously, protected. This vision hinges on a balance of legislation and business ethics.

But what if you have no right to privacy to begin with? China is already undertaking the "Social Credit System," a national trust score that is based on monitoring and evaluating citizens' daily activities. 19 Elsewhere, cynics (or realists?) maintain we shouldn't imagine - for a moment - that when we're on our phone or our computer or touching or using anything digital that we're in a private space. We're not, and that's just a fact of digital life. If you want privacy, turn off the Wi-Fi in your house. Shut the blinds. Buy a Faraday bag.

In this environment, laws will certainly be essential, but they will never keep pace with technology innovation. Equally crucial, then, will be the actions based on the spirit of those laws. Consider the U.S. Federal Trade Commission, which is empowered with the very wide mandate to go after unfair or deceptive trade practices.²⁰ Rather than out-and-out laws, which may become obsolete quickly due to fast technology changes, the commission uses standards, as these have a longer shelf life. This works, as long as adherence to strong ethics underpins standards compliance.

Another example is the Fourth Amendment of the U.S. Constitution, which protects "the right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures." Pause on the word "effects" for a moment. In a world suffused with always-on Internet connection, AI, facial recognition and sensors, every click, like and swipe is essentially an "effect," tantamount to the air we breathe. Most of us generate a big enough cloud of data to turn ourselves into personally identifiable or persona-making targets for others. So a failure to institute solid data protection laws runs counter to constitutional precepts, akin to telling an American in 1776, "You can be free from tyranny, as long as you don't read books, speak, move around or write anything down."

The machinery of legislation won't be as dazzling as the latest special-effects innovations in e-sports, immersive virtual reality or retinal image projection, but the ramifications will be as long-lasting. And in addition to regulations, businesses also need to codify a set of ethics and bake it into their business models. In the words of Senator Bill Nelson of Florida speaking at a congressional hearing to Mark Zuckerberg: "Let me just cut to the chase. If you and other social media companies do not get your act in order, none of us are going to have any privacy anymore."21

Cynics (or realists?) maintain we shouldn't imagine - for a moment - that when we're on our phone or our computer or touching or using anything digital that we're in a private space. We're not, and that's just a fact of digital life.

HOW I LEARNED TO STOP WORRYING (AND LOVE GDPR)

As the digital age matures, augmenting good governance with GDPR principles is critical. Your customers, your stakeholders, your shareholders, your stock price and your retirement account - to say nothing of the digital economy are counting on it.

With the dawning, then, of the first major governmentally induced data privacy regulation targeting European businesses, should technology leaders worldwide simply grasp the nettle and fully understand and embrace GDPR regulation? In a word: Yes.²² GDPR is just the beginning of more similar codification of privacy laws.

If it all sounds like a burgeoning recipe for bureaucracy and "red tape," you're probably right. Interpreting the guidelines of GDPR is going to cause a cacophony of competing opinions within the organization. But as the digital age matures, augmenting good governance with GDPR principles is critical. Your customers, your stakeholders, your shareholders, your stock price and your retirement account - to say nothing of the digital economy - are counting on it.

The New Rules of GDPR

You've heard it a thousand times: Put people at the center of technology. And with GDPR, that's the central tenet. Individuals (or "data subjects") maintain control over their own data. Critically, if you, your company or your partners want to use an individual's data, you must get their permission. People have the choice to opt-in (as opposed to today's opt-out, if that even exists as an option) once they get a request from a company in clear language (not legal mumbo-jumbo).

Companies have 72 hours to notify authorities of security violations, subject to fines of up to €20 million or 4% of annual revenues (whichever is highest). The biggest companies may be tempted to treat such a sum as a mere headache, a cost of doing business, like getting a speeding ticket. But in actuality, it could amount to billions in fines.

Quick Take

Swallow Your PII Pill (Let Us Count the Ways)

The critical components of GDPR that companies will need to focus on today, tomorrow and in the future are as follows:

- · The algebra of personal data counts. Personal identifiable information (or PII) is central to GDPR, including name, e-mail address, physical address, etc. Companies must that of another. (Using logic like "Professor Kogan seemed nice, and we want to help simply will not fly in the age of GDPR.)
- Context counts. This includes device IDs, browser cookies, location data and movements through time and space (like step counts). Like an algebraic equation, some of these data fragments, put back together, can re-establish PII and link it with sensitive
- Access counts. Who gets the data? Who manages it? How close are they to the CEO? Like a lean startup, what's the "minimum viable dataset" needed to accomplish a given process? Are the people using customers' data vacuuming up every last data point they can, even if they're not using it? All that seemingly superfluous data could be simply sitting around, and worse, not being paid attention to. That can be a huge risk. (And get
- Forgetting counts. A central tenet of GDPR is "the right to be forgotten" this is essentially the mechanism to give your Code Halo a delete button. Customers should have a complete 360-degree view of their information and full control of it.
- Regulators count. Statutorily, some data is more equal than others. Institutions (e.g., bank regulators issuing sanctions) can mandate information disclosure. Doing so may forgotten (with or without blockchain, and certainly with GDPR).
- · Portability counts. This is about letting a customer download and take their data with them. If your organization has a solid business analytics engine storing customer data (e.g., messages, questions, answers, trades, likes, personal history, etc.), it should be able to copy the files and send them back, completely and transparently.

Regional Legislation, Global Impact

GDPR is just the start. Californians will be voting in November 2018 to allow users to request information on what data is being gathered by companies about them, how it's being used and whether they can opt out of collection and usage in the future.²³

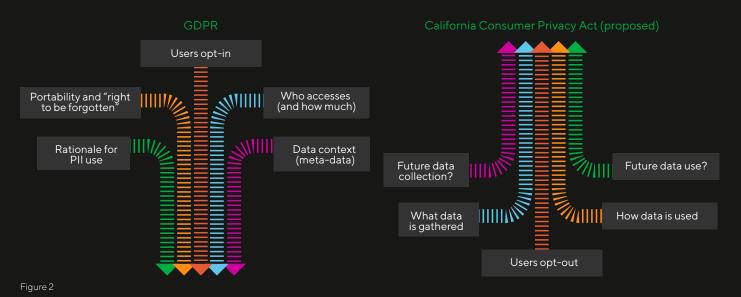
While the state proposed approach would be similar to GDPR, it puts the onus on users (not companies collecting the data) to get the facts about how their data is being used - and also to opt-out. GDPR is the inverse - it's all about the opt-in (see Figure 2). Since California is the biggest market in the U.S., the implications could be national in scope if it passes.

Tellingly, both Facebook and Verizon have dropped their opposition to the California initiative following Zuckerberg's congressional testimony.²⁴ Additionally, Facebook appears to be working on making the mechanisms of GDPR its de facto standard for users across the world.

Getting on board with regulation, like the proverbial apple a day, may help keep antitrust away. It's worth noting that regulation can be a bulwark against competition. AT&T's phone monopoly in the early 1900s reduced uncertainty, stabilized prices and protected profits by regulations enshrined in law.²⁵ Conversely, antitrust - like fertilizer for competition - can lead to consumer benefits. Recall that the explosion of early 21st century innovation in Web 2.0 companies like Google came directly in the wake of moves to split Microsoft's dominance (with a parallel shift in the watchful gaze of regulators). As the locus of attention shifted from Microsoft to rivals, so have the attentive eyes of regulators. To quote columnist Jonah Goldberg, it's possible that eventually "Facebook will look more like the 21st century AT&T of social media."26 Or, as NYU-Stern professor Scott Galloway puts it, "We must bust up big tech."27

Overlapping Mapping of Data Protections

Regulatory approaches differ, particularly in terms of opting in vs. opting out.



PREPARE FOR THE 'SPLINTERNET'

While regulations such as GDPR and other governmental response to privacy concerns will have worldwide ramifications, it's unlikely they will result in a global consensus of business and societal rules of the road. In fact, the opposite seems to be happening.

Attitudes toward data privacy appear, as of the spring of 2018, to be splintering amongst different regions of the world. Questions about privacy are being asked in the House of Commons. On Capitol Hill. "Digital immigrants" are referencing Orwell. European digital immigrants are referencing the Stasi (the former East German intelligence agency). The European model laying the foundation for GDPR has burgeoned out of a fairly recent and very painful history of surveillance state practices through World War II and the Cold War.

What is clear is that privacy is such a defining issue that we're rapidly approaching a time when business and government response to it will define what our world looks like, how it operates, who wins and who loses. Indeed, legislation could have a material, long-term impact on geopolitics as we know them since the outset of the digital age, and potentially realign the post-World War II neoliberal order. Consider the differing responses to issues of privacy by governments around the world:

U.S. (in reality, California)	"Wild West" principles prevail.	"Data wants to be free!" (and heaven help anyone who stands in the way of companies monetizing that). But pending legislation looms due to privacy blunders forewarning and forearming policy makers.
China	"Wild East" principles prevail.	The belief that central planning works is unwavering, and there's long-game confidence in the coming of Pax Sinica in 50 years.
Europe	"Middle Way" principles prevail.	GDPR is entering the scene, fresh from memories of the GDR – and terror of a new terror.

Which view will win out? Or will all three co-exist? Maybe a Global Village was an illusion all along? Maybe these very different attitudes toward data will see the same technologies to extract value from data used in very different ways in the future.

That the regulatory push is coming most aggressively from Europe adds a thick layer of complexity to the leading-edge tech arms race that is now moving at warp speed around the world. Consider that at the same time that European politicians are seizing the initiative to create legislation that will shape technology's evolution worldwide, none of the leading tech companies (which are now the leading companies in the world, period) are based in Europe. While Europe has its pockets of tech leadership (London's Deep Mind, although it's part of California-based Alphabet, Stockholm's Spotify), dominance - if not control - of Al and data analytics and cloud computing and social media is now a Sino-American duopoly. (At least in the above-ground Internet; leadership of the "dark web" is an entirely different matter.) The imbalance hasn't gone unnoticed: European scientists have called for the creation of a CERN-like AI center in the EU to quell the continent's Al talent brain drain and begin developing a research powerhouse.²⁸

The reaction to Europe's legislative agenda may range from resentment on the part of U.S. companies that perceive a hidden agenda of "handicapping," to apathy from Chinese companies that may ignore these edicts entirely. As one leading Chinese tech executive was reportedly overheard saying at a behind-closeddoors dinner at Davos, "You (i.e., the West) have already lost. You just don't know it yet." 29

One thing is clear: For the foreseeable future, governments - not businesses - will dictate these terms. But do "state's' rights" overwrite the individual's? Does national security outweigh privacy? Does economic liberty supersede social equality? While the fundamentals of these questions have been with us since the Age of Enlightenment, the future now rests on how we treat and manage data.



Without ethics, your business and the digital economy - let alone the non-digital, global macro-economy - is imperiled. Companies and their leaders need this hard-coded in their DNA. And they need to look hard - really hard - at what needs to happen now.

Leadership on these issues is urgently required. Even though oil companies survived incidents like BP's Deepwater Horizon and the Exxon Valdez, the consequence was heavy regulation, as well as lasting impact on policy for an industry (energy) on which the world's future depends. In addition to regulations, now's the time to dig down into Ethics 101 to help fill the potential moral vacuum. It was ethics that swung the hammer of laws governing the world of Olympic doping, in cycling or banks deemed too big to fail, and without ethics, your business and the digital economy³⁰ - let alone the non-digital, global macroeconomy - is imperiled. Companies and their leaders need this hard-coded in their DNA. And they need to look hard - really hard - at what needs to happen now.

Following are a series of steps that we recommend to anyone interested in leveraging the power of data, in order to harness its upsides but also to mitigate the very real downsides that stem from its misuse.

In our 2014 book Code Halos, we outlined a path forward. In retrospect, many of these steps reflect the statutory rules set forth by the GDPR legislation, so these durable recommendations are even more pertinent today than when they were first written:

- Make the service or solution "opt-in," not "opt out." Organizations should not use data without explicit permission - that is, without a clear "opt-in" from the user. It should also be completely transparent as to just what the user is "opting-in" to. In a world full of deliberately obscure and boring legalese, users often click the "I Accept" button because life is too short. Don't bury key limitations, intentions, liabilities or caveats in the small print. Opting-in and out is a foundational principle of the digital world; embrace and act on this zeitgeist.
- Provide a "delete button." Customers need to be able to reclaim their data and "be forgotten." Businesses are obligated to give back what they've been given, and be ready for people and organizations to "check out" when they want. An exit plan includes giving back a copy of someone's Code Halo - and then expunging this customer's records on request (keeping in mind our previous comments about "effects" in the Constitution, this should include metadata as well).
- **Show me you know me.** Customers have a right to see the data that's been collected about them. Without this internal covenant, companies move from the business of delivering valuable goods and services to the business of surveillance. While this might not be characterized as evil, many customers will regard it as creepy. Organizations don't necessarily have to share the details of a proprietary algorithm. But if someone sharing their Code Halo with you asks, "How did you know this?" you should be ready to provide a sense of how your "meaning-making" process works.

- Make the "give-to-get" ratio clear and compelling. Every commercial transaction requires one party to give something of value - often money - to get something in return. This same principle applies to Code Halos, but what's being exchanged is often data - code - between partners. A customer, employee or company will share information in return for value. A positive "give-to-get ratio" is one where the value of the code a customer provides about themselves (or that a system, process or product provides about itself) is exceeded by the value received. Managing this trade-off transparently is essential to the benefits participants will enjoy. This isn't something you'll do only once. The data you want, and the value you deliver, will change over time. That's fine; just don't be coy about it. You'll still need the lawyer-approved terms of service, privacy policies, etc. This is different. Be clear and open in a way you would appreciate.
- Apply different approaches in different parts of the world. Because cultural and legal norms differ widely around the world, a one-size-fits-all approach to data use and data sharing will be inadequate. You must plan for the different compliance regimes you encounter. This is the basis of our thoughts on the "Splinternet" (see previous section). Understand and anticipate - and even shape! - information policy within the countries, regions and industry segments in which you're doing business.
- Hard-code self-control. Self-regulation is essential. Just as the Hippocratic Oath emerged millennia before the American or British Medical Association, people and organizations of good faith will need to step forward and do the right thing because it is the right thing - not just because a politician or a lawyer or a journalist is watching. Consumer trust in companies to "do the right thing" just because it's the right thing is an open question. That's why answering the "Durbin Question" (how much privacy would you want) is all the more pressing. Organizations using Code Halo approaches must ensure that above all, they "do no harm" - and make their give much greater than their get in the absence of anyone telling them to do so.
- Be proactive early to avoid being evil ... and/or creepy. Just as lousy service at a restaurant or retail venue - which might have gone unnoticed or unpunished in the days before social media – is now broadcast with sometimes devastating impact, anyone who misuses or exploits the information exchanged via Code Halos will be exposed. Violators stand to lose customers, partners and the opportunity to gather data and insight. Organizations may be forgiven for mistakes but not for dishonesty. The cover-up truly will be worse than the crime.

LESSONS LEARNED **FROM THE** FERVOR OVER FACEBOOK

The raging debate over privacy is bigger than GDPR and codifying rules. It's fundamentally about pressure-testing ethics in the digital age. So as companies go forward, what lessons can every company learn from the 2018 #deletefacebook movement?

Data biopsies are being sought, offered and exposed by every company that trades on Code Halos and every journalist that smells a headline to be grabbed. And make no mistake, as of this writing, the knees are knocking among the likes of Google, Amazon and Palantir,³¹ just outside the spotlight.

Getting through this starts with thinking about new roles to handle the new rules, as well as thinking about stakeholder trust in equal parts to shareholders.

New Roles Emerge to Handle the New Rules

One thing is for sure: There's a future of work for lawyers in interpreting the ramifications of privacy legislation. Leading legal scholars such as Jack Balkin and Jonathan Zittrain have argued for and evangelized increased consumer protections along the lines of the client confidentiality laws applied to the healthcare and legal professions. Companies like Facebook and Twitter are in a similar relationship with consumers, as they have knowledge about, and thus power over, their users - and thus should be considered "information fiduciaries." 32

Already, roles like data protection officers (mandated by GDPR) are becoming essential to ensuring obligations to openness, fairness and transparency are attended to. We could also see personal data brokers stepping in to manage consumers' data monetization for them and ensure they're compensated for their data.³³ Digital rights management technologies – flipped to consumers-as-publishers – could help keep the recipients of that data honest, and the providers of that data remunerated based on how that data is used.34

Thinking About Shareholders and Stakeholders

Imagine what the world would look like if privacy and data protection fell apart completely in the next decade. We've seen mass migrations and collective leavings of people throughout history - could this extend to those continually left privacy-bereft by the 2020s, as people reject being "the product"?

Various mechanisms are already being devised to "pollute" browsing histories with random data points to obfuscate the "real" data. 35 Already, so-called "cryptoparties" in Australia, Canada, Switzerland and Germany - typically three- to five-hour events - are being held to show the technologically astute and amateur alike how to encrypt their personal information.³⁶

For people calling the shots at major businesses the world over, the belief system of the last decade has been that technology equals disruption, disruption equals opportunity, resistance is futile, don't be a Luddite, get with the program, etc. Yet for all the worship of digital "disruptors," didn't we learn in school that disruptive kids eventually get sent to the principal's office? Even Zuckerberg - "I'm not sure we shouldn't be regulated"³⁷ – seems ready to discuss new and more transparent privacy controls.³⁸

One thing is for sure: There's a future of work for lawyers in interpreting the ramifications of privacy legislation.

Quick Take

Price vs. Privacy

What about the idea of companies charging users for an added layer of privacy - what amounts to an "ad-free" platform? After all, "opting-out" at the highest level likely means a paid product, a luxury item of the 21st century.

The question to ask is: At what price, privacy? Recent research from user research company Alpha suggests that while most users are quite concerned about privacy on social media, including having their identity stolen or their location exposed to strangers, they were not willing pay extra to keep their information private.³⁹ And at a certain point, "sell me your privacy" slips into a shady zone, akin to paying digital protection money.

The price vs. privacy equation is one that results in very different balances depending on the company's culture and business model.

Something for Nothing: Pricing vs. Privacy Posture of Digital Stalwarts

Company	Privacy Posture		Pricing Posture	
Apple	4.4.4	High privacy	\$\$\$	High price
Facebook	**	Low privacy	(\$)	No price
Google	**	Low privacy	(\$)	No price
Amazon	1616	Some privacy	\$\$	Low price

Tech giants that carelessly guard personal data or are laissez-faire about enforcing the rules on the books will be punished by lawmakers; those more focused on monetizing services, which at its core is about profiting from collected data, will be punished by stakeholders (if not stockholders). There's no hiding behind the tiresome, tedious bravado of tech-bro culture. The time has come to leave the tortured-coder genius persona at the door. Inspired by songwriter Joni Mitchell, the cri-de-coeur of the Woodstock era was "we've got to get ourselves back to the garden." 40 As we've witnessed, the big beasts of the tech jungle are now curiously sotto voce in their "we're still not evil" advocacy, and the privacy principle, especially, has brought the unbridled optimism of Silicon Valley to the proverbial Trough of Disillusionment.

The time for a reckoning (if not antitrust) may have come, with U.S. Congressional regulation looming and GDPR rolling out.

Quick Take

CEOs on the Great Pricing-Privacy Debate

"We've never believed that these detailed profiles of people, that have incredibly deep personal information that is patched together from several sources, should exist. [Those profiles] can be abused against our democracy. It can be abused by advertisers as well."

- Tim Cook, Apple CEO

(From an MSNBC interview, March 28, 2018)

"It's important that we don't all get Stockholm Syndrome and let the companies that work hard to charge you more convince you that they actually care more about you."

- Mark Zuckerberg, Facebook CEO

"There are those folks who work to figure how to charge more, and there are companies that work to figure out how to charge less, and we are going to be the second, full-stop."

- Jeff Bezos, Amazon CEO



"Trust" is now a competitive factor for every business. A chief trust officer (reporting directly to the CEO and a peer to the CFO and general counsel) should work closely with data protection officers (now mandated by GDPR) to oversee privacy and customer advocacy, thus ensuring digital innovations thrive.

The manifold issues, threads and "big stakes" issues stirred up by data privacy, legislation, risks and pitfalls are in the headlines (and your Twitter feed) every single day. It's a subplot to the great story of our time that is Al, but it is necessarily sidetracking the excitement of possibilities in the digital age.

Here's how we begin the restoration.

Fans of Netflix's The Crown will remember John Grigg, aka Lord Altrincham, criticizing Claire Foy's Queen Elizabeth II for being aloof from regular people. It was an unprecedented act for its day. Yet the Queen herself was ready to listen to his critiques, one-on-one, framed as "three things to start doing" and "three things to stop doing." The scene ends with her stoically adjudging, "I'm quite sure this needed saying." A closing note advises viewers that almost all of his proposals were implemented and that the Palace later conceded that Lord Altrincham did as much as anyone in the 20th century to help the monarchy.

Following is your critical and succinct list of six actions - three things to start doing, and three things to stop doing - to help data privacy flourish in the digital age.

Start:

- 1. Innovating new roles like the chief trust officer at the executive level. Trust is an amorphous concept for which every employee of an organization has implicit - but not explicit - responsibility. This must change. "Trust" is now a competitive factor for every business. A chief trust officer (reporting directly to the CEO and a peer to the CFO and general counsel) should work closely with data protection officers (now mandated by GDPR) to oversee privacy and customer advocacy, thus ensuring digital innovations thrive. They'll certify that monetization of data conforms to ethical guidelines and key performance indicators.
- 2. Promoting public policy that rewards good privacy ethics. There's a reason companies like Facebook and Verizon aren't aggressively combating legislation like GDPR and the moves toward such laws in California. The closer you are to the debate - even if it means squirming through testimony on Capitol Hill, Sacramento or Westminster - the more influence you can have on the future.
- 3. Ensuring privacy protection initiatives for metadata. Submitted customer data (e.g., comments, pictures, etc.) - and the ability to edit or delete it - is one thing. But it's customers' metadata (or "contextual data" in the PII parlance of GDPR) that's the bigger deal. We're already seeing moves from players like Facebook to establish a "clear history" feature - somewhat like an angioplasty for customers' Code Halos.

Stop:

- 1. Taking things like ethics for granted. While "move fast and break things" sounded great a few years ago, the tide has undeniably turned. The days of the "data debutantes" are over, since the consequence of betting the brand on questionable use of data is the disappearance of customers. As the backlash grows, there's a very real possibility that new jobs of the future like personal data brokers will emerge to help customers manage the monetization of their own data.
- 2. Thinking of GDPR as the enemy. The absence of trust is antitrust, and your mindset needs to embrace one simple fact: Love it or hate it, GDPR regulation is your new best friend. Legislative sea changes of this type could be the raw fuel that impels business success in the future.
- 3. Over-reacting. Course corrections and pivots on the road to the future of privacy will be natural. That doesn't mean innovation is over, but let ethics (and the law) help your organization walk the line between leading edge and bleeding edge. Capitulating to fear, and shutting down digital innovation, is the worst thing your organization can do.

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WHO'S WATCHING WHOM?

As we wrote in Code Halos, give-to-get ratios underpin the entire digital economy. When it comes to social media, it's seemingly a bargain, where cost (often free), convenience (no friction) and vanity ("this is fun!") outweigh everything. But privacy and trust have historically underwritten the rich history of liberal economies, and have always given people confidence in commerce. Without these elements, the digital economy as we know it falls apart.

With the advent of GDPR, the coming weeks, months and years will pressure-test the privacy practices of digital leaders - big and small - like never before. Paraphrasing MIT's Erik Brynjolfsson, technology is a tool we can use to change the world. We get to choose whether the outcome is good or bad. 41 Even Mark Zuckerberg seems to have found his bearings, testifying before Congress that "Facebook is an idealistic and optimistic company. But it's clear now that we didn't do enough to prevent these tools from being used for harm as well."42

And just like in the past and present, privacy must remain an enduring virtue for our digital civilization, democracy and economy survival into the future. Far from being an intrusive model like the Chinese we-watch-you-all-the-time approach, the seemingly-chaotic Western approach, with its sometimes inconvenient, thorny and messy mix of standards, laws, regulations and ethics, means it's the customers of digital leaders - the people - who will watch every move you make.

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UNCLASSIFIED

From the Desk of the Director

MEMORANDUM

To: The Center for the Future of Work

From: The Director

Subject: Restoration of Privacy Project

To Whom It May Concern:

There is a critical list of six actions that companies can take to help data privacy flourish in the Digital Age.

- 1) Start innovating roles at the ELT level especially the role of Chief Trust Officer.
- 2) Start being a proponent of public policy that rewards good privacy ethics.
- 3) Start ensuring privacy protection initiatives for metadata. It's such a big deal.
- 4) Stop taking things like ethics for granted it's a critical skill in the future of privacy.
- 5) Stop thinking of GDPR as your enemy. The absence of trust is antitrust; GDPR regulation is your new best friend.
- 6) **Stop over-reacting** course corrections on the road to the future of privacy will be natural.

Regards,

The Director

Footnotes

- Scott Shane, "Documents on 2012 Drone Strike Detail How Terrorists Are Targeted," Cognizant Technology Solutions, June 24, 2015, https://www.nytimes.com/2015/06/25/world/middleeast/us-drone-strike-said-to-kill-doctor-trying-to-implant-bombs.html.
- ² "Chinese Man Caught by Facial Recognition at Pop Concert," BBC, April 13, 2018, http://www.bbc.com/news/world-asiachina-43751276.
- ³ Aja Romano, "DNA Profiles from Ancestry Websites Helped Identify the Golden State Killer Suspect," Vox, April 27, 2018, https://www. vox.com/2018/4/27/17290288/golden-state-killer-joseph-james-deangelo-dna-profile-match.
- ⁴ Malcolm Frank, Paul Roehrig, Ben Pring, Code Halos: How the Digital Lives of People, Things and Organizations Are Changing the Rules of Business, Wiley, 2014, https://www.amazon.com/Code-Halos-Organizations-Changing-Business/dp/1118862074/ref=tmm_ hrd_swatch_0?_encoding=UTF8&qid=&sr=.
- The Police, "Every Breath You Take," Synchronicity, 1983, https://www.youtube.com/watch?v=OMOGaugKpzs.
- 6 Matthew Rosenberg, Nicholas Confessore and Carole Cadwalladr, "How Trump Consultants Exploited the Facebook Data of Millions," The New York Times, March 17, 2018, https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign. html.
- Charles K. Ebinger, "Six Years from the BP Deepwater Horizon Oil Spill," Brookings, April 20, 2016, https://www.brookings.edu/blog/ planetpolicy/2016/04/20/6-years-from-the-bp-deepwater-horizon-oil-spill-what-weve-learned-and-what-we-shouldnt-misunderstand/.
- 8 GDPR Portal, https://www.eugdpr.org/.
- 9 "Is Privacy Dead in an Online World?" BBC, Oct. 6, 2017, http://www.bbc.com/news/technology-41483723.
- Gaurav Oberoi, "Exploring Deepfakes," Hackernoon, March 5, 2018, https://hackernoon.com/exploring-deepfakes-20c9947c22d9.
- " "Durbin Draws Laughs Questioning Zuckerberg on Privacy," NBC Chicago, April 11, 2018, https://www.nbcchicago.com/blogs/wardroom/dick-durbin-asks-mark-zuckerberg-about-privacy-479404213.html.
- ¹² Robert Brown, "Renaissance or Civil War: Debating the Future of the Job and Work Ahead," Cognizant Center for the Future of Work, Jan. 31, 2017, http://www.futureofwork.com/article/renaissance-or-civil-war-debating-the-future-of-the-job-and-the-work-ahead.
- ¹³ Kyle Russell, "I Was Assaulted for Wearing Google Glass in the Wrong Part of San Francisco," Business Insider, April 13, 2014, http:// www.businessinsider.com/i-was-assaulted-for-wearing-google-glass-2014-4.
- ¹⁴ Graham Robb, The Discovery of France: A Historical Geography, W.W. Norton & Co., 2008, https://www.amazon.com/Discovery-France-Historical-Geography/dp/0393333647.
- 15 Steven Pinker, Enlightenment Now: The Case for Reason, Science, Humanism, and Progress, Viking, 2018, https://www.amazon. com/Enlightenment-Now-Science-Humanism-Progress/dp/0525427570.
- ¹⁶ Wikipedia entry on Facebook/Cambridge Analytica scandal: https://en.wikipedia.org/wiki/Facebook%E2%80%93Cambridge_Analytica data scandal.
- David Lumb, "Cambridge Analytica Is Shutting Down following Facebook Scandal," Engadget, May 2, 2018, https://www.engadget. com/2018/05/02/cambridge-analytica-is-shutting-down-following-facebook-scandal/.
- 18 Our 2016 study "The Work Ahead," in conjunction with macroeconomic firm Roubini ThoughtLab, gives this some perspective; the Republic of Digital (i.e., the amount of revenues generated through digital business), if it existed as a separate country with a \$6.6 trillion economy, would be the third largest economy in the world (roughly equal to the economic horsepower of the entire 2015 economies of Germany, the UK and Austria, combined). See https://www.cognizant.com/FoW/the-work-ahead.pdf.
- ¹⁹ Simina Mistreanu, "Life Inside China's Social Credit Laboratory," Foreign Policy, April 3, 2018, http://foreignpolicy.com/2018/04/03/ life-inside-chinas-social-credit-laboratory/.
- ²⁰ "Pandora's Box: The Privacy and Ethical Tradeoffs of Code Halo," Cognizant Technology Solutions, Feb. 22, 2014, https://www.youtube.com/watch?v=xjfYP11N8yk.
- ²¹ "Transcript of Mark Zuckerberg's Senate Hearing," The Washington Post, April 10, 2018, https://www.washingtonpost.com/news/theswitch/wp/2018/04/10/transcript-of-mark-zuckerbergs-senate-hearing/?utm_term=.acf5a31b87bf.

- ²² Scott Schlesinger, "A Strategic Approach to Protecting Customer Data," Digitally Cognizant, June 21, 2017, https://digitally.cognizant.com/strategic-approach-to-protecting-customer-data-codex2849.
- ²³ California Consumer Privacy Act website: https://www.caprivacy.org/facts.
- ²⁴ Colin Lecher, "Facebook Withdraws from Group Fighting a Major California Privacy Initiative," The Verge, April 12, 2018, https://www. theverge.com/2018/4/12/17229128/facebook-california-consumer-privacy-act.
- ²⁵ Jonah Goldberg, "Facebook Likes Regulation as Potential Profit Booster," San Francisco Chronicle, April 15, 2018, https://www. pressreader.com/usa/san-francisco-chronicle/20180415/282724817517293.
- ²⁶ Jonah Goldberg, "Tighter Regulation Would Probably Increase Facebook's Profits," National Review, April 13, 2018, https://www. national review.com/2018/04/facebook-more-regulation-would-increase-profits/.
- ²⁷ Scott Galloway, "Silicon Valley's Tax-Avoiding, Job-Killing, Soul-Sucking Machine," Esquire, Feb. 8, 2018, https://www.esquire.com/ news-politics/a15895746/bust-big-tech-silicon-valley/.
- ²⁸ Ian Sample, "Scientists Plan Huge European Al Hub to Compete with U.S.," The Guardian, April, 23, 2018, https://www.theguardian. com/science/2018/apr/23/scientists-plan-huge-european-ai-hub-to-compete-with-us.
- ²⁹ Ben Pring, "WEF 2018 in Review: Splints on a Fractured World," Digitally Cognizant, Jan. 31, 2018, https://digitally.cognizant.com/ wef-2018-review-splints-fractured-world-codex3420/.
- 30 Read more about the digital economy in our 2016 study "The Work Ahead: Mastering the Digital Economy," https://www.cognizant.com/FoW/the-work-ahead.pdf.
- ³¹ Ben Pring, "WEF 2018: Davos, Data, Palantir and the Future of the Internet," Digitally Cognizant, Jan. 25, 2018, https://digitally. cognizant.com/wef-2018-davos-data-palantir-and-the-future-of-the-internet-codex 3403/.
- ³² Jonathan Zittrain, "Mark Zuckerberg Can Still Fix This Mess," The New York Times, April 7, 2018, https://www.nytimes. com/2018/04/07/opinion/sunday/zuckerberg-facebook-privacy-congress.html?WT.nav=opinion-c-col-right-region&action= $click \& click \\ Source = story - heading \& module = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& pgtype = Homepage \& region = opinion - c - col - right - region \& region = opinion - c - col - righ$ gion.
- 33 "21 Jobs of the Future," Cognizant Center for the Future of Work, November 2017, https://www.cognizant.com/whitepapers/21jobs-of-the-future-a-guide-to-getting-and-staying-employed-over-the-next-10-years-codex3049.pdf.
- 34 "Pandora's Box: The Privacy and Ethical Tradeoffs of Code Halos," Cognizant Technology Solutions, Feb. 22, 2014, https://www. youtube.com/watch?v=xjfYP11N8yk.
- 35 Jon Brodkin, "After Vote to Kill Privacy Rules, Users Try to Pollute their Web History," Ars Technica, April 3, 2017, http://andrewchen.co/how-to-be-a-growth-hacker-an-airbnbcraigslist-case-study/.
- ³⁶ CryptoParty website: https://www.cryptoparty.in/.
- ³⁷ Nilay Patel, "Mark Zuckerberg Is 'Actually Not Sure We Shouldn't Be Regulated," The Verge, March 21, 2018, https://www.theverge.com/2018/3/21/17150270/mark-zuckerberg-facebook-regulated.
- 38 Mark Zuckerberg Facebook post: https://www.facebook.com/zuck/posts/10104899855107881?ftag=COS-05-10aaa0b&linkld=51172419.
- ³⁹ Joni Mitchell, "Woodstock," Ladies of the Canyon, 1970, http://jonimitchell.com/music/album.cfm?id=4.
- 40 "To What Extent Are Facebook Users Concerned with Privacy and Ads-Free Experiences?" Alpha, April 22, 2018, https://platform.alphahq.com/rep/ace99d80f33a44fc3483eddc7ff5a58e?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axioslogin&stream=top-stories.
- 41 "Will Smarter Computers Lead to a Better World?" WBUR, Jan. 9, 2014, http://www.wbur.org/hereandnow/2014/01/09/second-machine-age.
- ⁴² "Mark Zuckerberg Says Facebook Is an Idealistic, Optimistic Company, But Didn't Do Enough to Protect Users," The Economic Times, April 11, 2018, https://economictimes.indiatimes.com/magazines/panache/mark-zuckerberg-says-facebook-an-idealistic-optimistic-company-but-didnt-do-enough-to-protect-users/articleshow/63707611.cms.

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Ben Pring is Vice-President and Managing Director of Cognizant's Center for the Future of Work. He came to Cognizant in September 2011 after spending the previous 15 years with Gartner as a senior industry analyst, researching and advising on areas such as cloud computing and global sourcing. Prior to Gartner, Ben worked for a number of consulting companies, including Coopers & Lybrand.

At Gartner, Ben was one of the lead analysts on all things cloud; he wrote the industry's first research notes on cloud computing (in 1997) and Salesforce.com (in 2001). He became well known in the IT industry for providing predictions of the nature and velocity of the change that would impact everyone as the paradigm shifted again and cloud computing become the foundation for the next wave of competition in global IT. Ben was also heavily involved in tracking and analyzing the emergence of IT talent from outside western markets and the impact that globalization would have on business and IT strategies for organizations of all types.

Ben's expertise in helping clients see around corners, think the unthinkable and calculate the compound annual growth rate of unintended consequences has brought him to Cognizant, where his charter is to research and analyze how clients can leverage the incredibly powerful new opportunities that are being created as new technologies make computing power more pervasive, more affordable and more important than ever before. Now based near Boston, MA, Ben graduated with a degree in philosophy from Manchester University in the UK, where he grew up.

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ABOUT THE CENTER FOR THE FUTURE OF WORK

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