

Truths from
Tech Industry
Insiders

Paul Roehrig | Ben Pring

MONSTER

A Tough Love Letter On Taming
The Machines That Rule Our Jobs,
Lives, and Future

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1

HAVE WE
CREATED A
MONSTER?



In which we explore one of the great questions of our time: Have we inadvertently created technology that is hurting our society, our economy, and even our minds?

We love technology. Waze, Netflix, Shazam, Hotel Tonight, Spotify, the MRI that diagnosed Ben's back problem, Gmail, Headspace, Alexa, even on occasion the corporate travel application. Technology is a miracle — something that has made billions of people's lives around the world materially better. Including ours.

We — Ben and Paul — have worked in tech most of our professional lives, as IT analysts, management consultants, and technology practitioners, playing a small role in creating and shaping an industry that employs a significant percentage of the world's working population and is now worth an eye-watering \$4 trillion a year.¹ We have unashamedly been technology evangelists. But recently something has changed, and now we've become worried. Why? Because we increasingly come across not as tech evangelists but as tech apologists.

“AI is the great story of our time!” we say (on stages around the world).

“Data is the new oil.”

“Everything that can be automated will be automated.”

“Hyper-personalization is key to competitive advantage.”

“Don't be a bad robot — be a good human being.”

“Contact tracing is key to stopping the coronavirus.”

“Pre-digital dinosaurs roam the earth. Don't be one.”

People nod, and often applaud, which is nice, but then the real questions start.

“How many jobs will AI destroy?”

“What should my kids study?”

“How can we compete against pure digital companies?”

“What will ordinary, non-tech-savvy people do in a world of brilliant tech superstars?”

“Will we need to sacrifice our freedom for our health?”

“How can I beat the robots?”

“What about Universal Basic Income?”

“Will the Fourth Industrial Revolution lead to a real revolution?”

“What scares you?”

Typically, we nod, pause, smile, and say, “That’s a very good question.” Then we try our best to convey a message that acknowledges the concern in the questioner’s mind but also provides a positive, hopeful point of view: “If we take the right actions now, things are going to be OK. Better than OK, in fact.”

Lately, though, we’ve started feeling less certain that things are going to be “better than OK.”

And it’s in that light that we attempt in this short book to ask and begin to answer perhaps the most important questions of our time:

Have we inadvertently built some kind of technology monster that is attacking our **society**, our **economy**, and even our individual **psychology**? If so, what should we do about it?

In our last book, *What To Do When Machines Do Everything* (published 2017), we didn’t shy away from the impact tech has had — and will have — on disrupting jobs or spurring other downsides of progress and innovation. We laid out a vision that artificial intelligence (AI) and other new technologies are simply the next generation of powerful productivity tools for us to use wisely. These tools will change our world, as new tools always have, by taking us to the next level of potential and achievement.

So far, overall, we’ve been largely right. While it’s true that the pandemic is clearly reshaping how and where we work, it’s also the case that forecasts of AI and robots causing a job apocalypse were overblown. Before the pandemic, employment numbers were at record levels in the Western world, and many sectors show signs of quick recovery. Being “pragmatic optimists” about technology has seen us stand out in crowds of doom-mongers and dystopians.

But concerns about technology’s negative side have grown stronger and stronger since we published *Machines*, and despite our best efforts to the contrary, the *zeitgeist* that surrounds technology has become steadily bleaker. Even at a moment when tech has been a lifeline for people stuck at home during the COVID-19 lockdowns.

Central to this darkening mood have been four key trends:

1. The persistent sense of dread (even in the absence of any real evidence) that brilliant machines will outpace even the most brilliant of minds.
2. The ubiquity of social media (and growing awareness of its negative impact at a micro and macro level).
3. The unholy *pas de deux* between “big money” and “big tech.”
4. The pervasive feeling that in aggregate, tech is making our jobs, personal lives, and even our societies somehow worse, rather than better.

Combined, these dynamics have soured the perception of technology as a force for good, and left many questioning the core tenets of technology’s role in our lives and societies.

Including, now, us. We *love* technology, remember? But even we are asking ourselves, “What the hell is going on?” Anyone looking at the daily news — except for the most myopic and naïve — could easily think, “Jeez, we are collectively losing our minds!”

Social conventions of privacy and courtesy are melting away. Our democratic institutions — fair elections, civil discourse — seem as quaint and distant as buggies and gas street lamps. Once cool, disruptive tech “rock stars” are being exposed as nothing more than the latest digital robber barons, propped up by easy money that arrives as an “offer you can’t refuse” with few questions attached but in reality is a clear demand to “make me a boatload more money.” Increases in aggression, depression, and self-harm are seen by some as signs that our new machines are melting our brains.

Minds, money, machines, society — together, these systems weave a complex web of history, economics, sociology, religion, law, and politics. They are all interconnected, and together they are morphing the rules of our jobs, lives, and societies in a way we haven’t seen since the First Industrial Revolution.

We can feel it, and you probably can too. While many good things are happening around us, we *know* we can do better. To improve, though, we must recognize the ground truth about where we are.

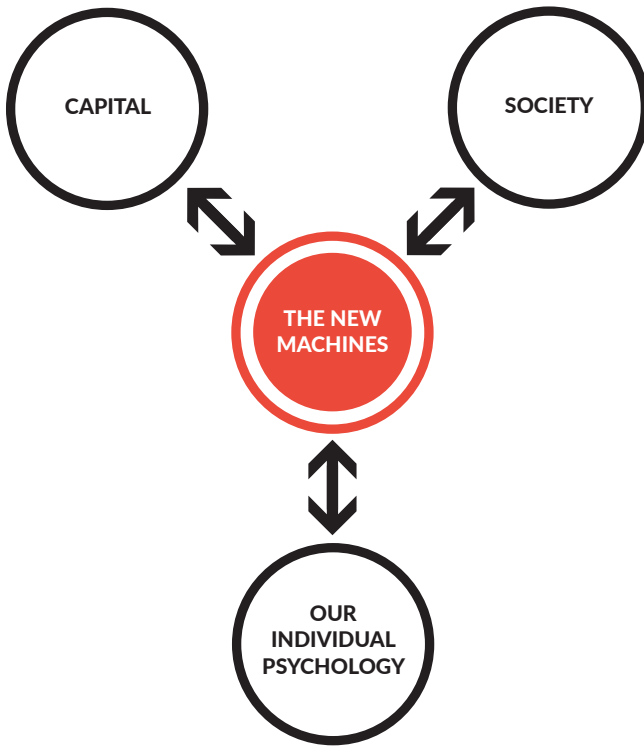
These dynamics have, of course, only intensified as COVID-19 has presented the greatest existential threat to our way of life since the second world war. The pandemic severed our normal social connections. In our quarantine solitude, we flocked to the Monster for comfort, fellowship, information, and distraction. Every concern about privacy and the potential dark underbelly of surveillance was swiftly and completely forgotten. In our period of extreme stress, tech became even more central to *every* aspect of our presence on Earth. Tech's intrinsic strengths and flaws became more apparent as governments, institutions, corporations, and people responded (leading to unintended consequences, both good and bad).

It's in that light that we — Paul, Ben, and the many, many colleagues, journalists, academics, clients, colleagues, pals, and family members with whom we interact — have been discussing: “What is happening? What seems to be going wrong? What should we do about it? What kind of world do we want?”

Our exploration is structured around four key pillars:

1. **Capital.** Tech and money are now inextricably interlinked. What has money done to tech, and what is tech doing to money? Is there any way out of a future in which money is the only thing that matters?
2. **Psychology.** We are already cyborgs. Our phones are never out of our hands. Soon, they will be in our glasses and inside our heads. What does this mean? Can we ever disconnect, figuratively and/or literally? What is happening to our minds (the original, organic CPUs)? Is this exciting and good, or terrifying and a disaster?
3. **Society.** Tech is accelerating the compounding of winners and losers. Live in a zip code full of code? Life has never been better. Live in an analog town? Protectionism and wall building can seem like the only option. Social media echo chambers have started an uncivil war that is currently virtual and digital but could soon feature real bullets.
4. **The New Machine(s).** Artificial intelligence is perhaps one of the most important human inventions. We grant you your cynicism but caution that your raised eyebrows will be your undoing. AI is bigger than anything we've seen, and we've been looking at big things all our working lives. How can it not change every aspect of our world in the coming years and decades? And yet we (the collective we) still have very little grasp of what it is going to do to us.

1. Have we created a monster?



If they weren't entirely obvious before the pandemic, the downsides of our "wired" world are on full display now; a global 24/7 news industry (incentivized to dramatize and inflame every tweet and data point); a social media industry incentivized to amplify the "macro" "breaking news" into "micro" "freaking out"; and the unholy alliance between Mainstream Media and Social Media (Zucker *and* Zuckerberg) that creates a vicious cycle at which Churchill would weep. (Nobody's keeping calm, and nobody's carrying on.) We offer the following in the spirit of honest exploration and genuine humility, and with a sense that without good questions and dialogue, we will never find good answers. That process starts here.

In the tradition of Socrates and Plato, Watson and Crick, Mick and Keith, or Abbott and Costello, we've tried to capture a spirit of our own dialogue,

the back-and-forth wrestling with these issues, which are some of the most complicated that humans face today.

In a few pages, we try to net out which questions are important, what we should be paying attention to, and — importantly — what must be done.² All of the following thoughts stem from our own research, work with clients, reams of insight, and ideas from others, and hours and hours of discussion and debate between ourselves — on conference calls, in meeting rooms (and a few bars) — where we traded point and counterpoint to develop a narrative that made sense and that could help us find a healthy path ahead.

It should also be noted that in our deliberately short book, we haven't tried to write a complete overview of technology or finance or the human psyche or societal structures. Fantastic but modestly sized books like *The Prince*, *The Art of War*, and *Night* don't completely explain leadership, conflict, or evil. Rather, they each tell a "small" story to illustrate themes of nearly infinite complexity and scope. The story of the Monster is so comprehensive it would take dozens of books to "cover" everything (and would certainly still fail). Instead, we chose to create a small piece to frame one of the biggest stories of our time.

Some will undoubtedly query why we've chosen to focus on "x" and not "y." This is, again, by design. Based on our prior research and work over the past years, we made the best choices we could to focus on what we feel is the *most* relevant and the *most* likely to help us out in the near term. The result is a subjective but informed take on an extremely complex set of interlocking issues.

Our hope is that by allowing ourselves this freedom, we have given ourselves permission to examine and understand the fundamentals of how the new machines are reshaping our economy, our society, even our own minds and, in doing so, get to the essence of what we all need to do to move toward a future that may not be a utopia but is far less likely to be monstrous.



Can we tame the beast?

So if, in fact, we have created a technology monster, how can we begin to tame it?

Throughout the book, you'll find recommendations for policy makers, business leaders, and ordinary responsible members of society. To make things easier (and provide some hope because what follows can get kind of dark), here is a summary of 13 lessons we will *all* need to embrace in the months and years ahead.

1. Tech is too important to be left in the hands of technologists.

Intimidated by the complexity of technology, “civilians” have tended to let the “nerds” get on with things on their own. How did that turn out? Not so well. Technology needs to be regulated by technologists and a diverse cohort of non-engineers who can’t spell “Java.” Tech boffins may not like the sound of this, but we’ll get used to it.

2. Real freedom means ending data-based surveillance. To maintain authentic economic freedom, we have to recognize the rise of covert digital surveillance. It’s time to make it much harder — OK, impossible — to extract, mine, and sell our data and information without our true awareness and informed consent. The argument to use sensors, AI, and contact-tracing in the fight against the coronavirus pandemic is powerful, but by doing so, another step will have been taken toward the full compromise of the very notion of privacy.

3. Treat personal data like your reputation, not your disposable razor. Centralized data control is the taproot of winner-take-all internet businesses. Some are trying to wrest back control from the digital oligarchs, but that will be difficult. It’s up to each of us to

recognize our personal data as a precious asset and *treat it as such* (rather than tossing it onto the web for the gain of others).

4. **Is it safe? No, it is not.** Wondering if you've been hacked? You have.
5. **Get ready for the “splinternet.”** Borders used to be drawn on maps. New borders will be drawn according to your IP address. Each region, country, state, or even city (or home) will have different views about the ideal technical, social, and economic model for the future. We need to be ready for different versions of the web, with vastly different conventions for privacy, tax, data, content, access, and more.
6. **Follow — and manage — the money.** Forewarned is forearmed, so simply being aware of how capital, growth, and economic power are changing will put us ahead. Be ready to participate in new regulations, tax policies, controls on capital markets, and more to protect wealth, innovation, and even our happiness.
7. **Stop the brain hacks.** Attempts to use technology + psychology to try to control us and extract value without our consent or knowledge need to be recognized for what they are: a violation of trust and ethics. This practice must be rooted out and shut down with regulation, law, and social convention so our activities, thoughts, and emotions are not hacked and tracked every time we log on.
8. **Kick digital fentanyl.** Tech gives us endless stimulation, a little drip of dopamine with every click, tweet, swipe, and like. It's time to take steps to kick the addiction. Easier said than done, but step one is recognizing the problem.
9. **Just breathe.** Jacking into the web every day, every hour, may not be damaging, but it's not benign. Community, friendship, faith, and mindfulness may seem quaint today, but the path to building healthy identities and minds in the modern age could be paved by actions and practices that have grounded us for millennia.
10. **Learn from the rearview mirror.** Our ancestors struggled to absorb their steam-powered disruption just as we are struggling with our new machines. We should hold up a mirror to the past to see many of the patterns repeating today as tech impacts capital, war, politics, society, labor, ethics, and more. By learning from the past, not