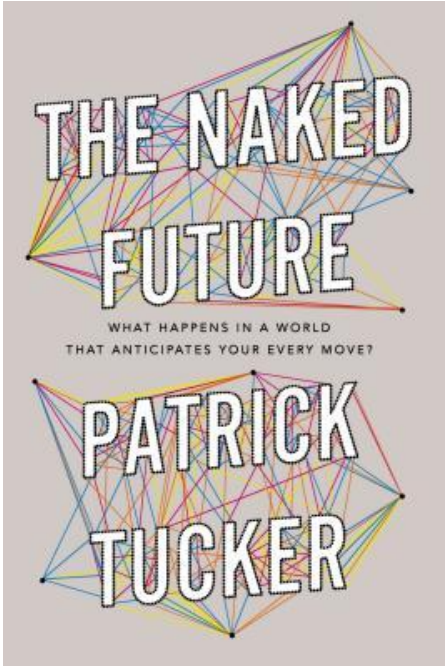

The Naked Future: What Happens in a World That Anticipates Your Every Move?

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**"Where I saw a thrilling and historic transformation in the world's oldest idea—the future—other people saw only Target, Facebook, Google, and the government using their data to surveil, track, and trick them . . . But in fact, your data is your best defense against coercive marketing and intrusive government practices. Your data is nothing less than a superpower waiting to be harnessed."
—FROM THE INTRODUCTION**

In the past, the future was opaque—the territory of fortune-tellers, gurus, and dubious local TV weathermen. But thanks to recent advances in computing and the reams of data we create through smartphone and Internet use, prediction models for individual behavior grow smarter and more sophisticated by the day. Whom you should marry, whether you'll commit a crime or fall victim to one, if you'll contract a specific strain of flu—even your precise location at any given moment years into the future—are becoming easily accessible facts. The naked future is upon us, and the implications are staggering.
Patrick Tucker draws on stories from health care to urban planning to online dating to reveal the shape of a future that's ever more certain. In these pages you'll meet scientists and inventors who can predict your behavior based on your friends' Twitter updates. They are also hacking the New York City sewer system to predict environmental conditions, anticipating how much the weather a year from now will cost an individual farmer, figuring out the time of day you're most likely to slip back into a bad habit, and guessing how well you'll do on a test before you take it. You'll learn how social networks like Facebook are using your data to turn you into an advertisement and why the winning formula for a blockbuster movie is more predictable than ever.

The rise of big data and predictive analytics means that governments and corporations are becoming much more effective at accomplishing their goals and at much less cost. Tucker knows that's not always a good thing. But he also shows how we've gained tremendous benefits that we have yet to fully realize.

Thanks to the increased power of predictive science, we'll be better able to stay healthy, invest our savings more wisely, learn faster and more efficiently, buy a house in the right neighborhood at the right time, avoid crime, thwart terrorists, and mitigate the consequences of natural disasters. What happens in a future that anticipates your every move? The surprising answer: we'll live better as a result.

The Naked Future: What Happens in a World That Anticipates Your Every Move? Details

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From Reader Review The Naked Future: What Happens in a World That Anticipates Your Every Move? for online ebook

Patrick says

We are on the threshold of a historic transition. The rate by which the human race can extrapolate meaningful patterns from data is quickening as rapidly as is the spread of the Internet because the two are inexorably linked. With the rise of smart phones, sensor networks, and the Internet of Things, we now create usable data in more and more of our daily activities. The average American generates 1.8 million megabytes of data on a yearly basis through downloading, streaming of movies and music, making phone calls, even accessing buildings and highways with RFID technology. This is why more than 90% of all the data that has ever existed was created in just the last two years. There will be 44 times as much digital information in 2020 (35 zetabytes) as there was in 2009 (8 zetabytes) according to the research group IDC.

The data that we are creating now touches on every aspect of our existence. It can be linked to health, to human behavior, to how we behave in cities, in schools, and in relationships. In an anthropological sense, this data tells the untold story not just of where we are going but where we have been, how and why we built the modes of civilization that define us. This is why a better public understanding of data and its ramifications has never been more critical.

My work as a science journalist and editor has focused largely on helping my readers to build an understanding of our increasingly complex, data-driven world. Last year, this work culminated in the writing of a book, The Naked Future: What Happens in a World That Anticipates Your Every Move?

Big data, analysis, and increased computational capability will radically change the way we live in the next decade. But too many news outlets treat the emergence of big data as a simple threat rather than as an opportunity to be seized wisely. The worst possible move that we, as a society, can make right now is to demand that technological progress reverse itself. A better solution is to familiarize ourselves with how these tools work, understand how they can be used legitimately in the service of public and consumer empowerment, better living, learning, and loving, and also come to understand how these tools can be abused.

That’s what drove me to write The Naked Future: What Happens in a World That Anticipates Your Every Move?

Dmitry Khvatov says

Good read.

Craig Jaquish says

What *does* happen in a world that anticipates your every move? “We give [data] away to retailers, phone companies, the government, social networks, and especially our own phones without realizing it. In the next few years that data will become more useful to more people. This is what [Patrick Tucker] call[s] the naked

future."

Patrick Tucker is deputy editor of *The Futurist* magazine and director of communication for The World Future Society. Admittedly I keep an open ear to but also an arm's length from futurists. The majority of their effort seems to be expended collecting and fetishizing over technological breakthroughs with few resources left to integrate much of it more than superficially. Throughout the book Patrick Tucker comes across as someone you can take seriously—with that characterization of futurists I don't want to leave open for implication that he's some caricature or anonymous tentacle of a groupthink bulk—but *The Naked Future* is not an exception to the paradigm. The whole naked future deal is more of a unifying coinage than a unifying concept. We still end up with just sort of a catalog of things that could happen a five to ten years ahead, each compartmentalized into a chapter. The sudden thoughtfulness of the concluding chapter caught me off guard, but at the same time it was confusing why this late-coming influx of nuance and deeper penetration was not woven throughout to enrich the preceding chapters.

The most lackluster chapter by far addressed education—as if every education discussion lately does not quickly touch on MOOCs. I read about both MOOCs and Sugata Mitra only two books ago, and was already familiar with both before that. Repetition seems inevitable with these topic-at-a-glance, assemblage-of-interviews, pop-tech books. Inexcusably, a good deal of the chapter is basically a blow-by-blow of Sugata Mitra's TED talk from 2007.

Among the big names supplying the jacket recommendation blurbs—Vint Cerf, Ray Kurzweil, Daniel Pink, Kenneth Cukier—conspicuously sits Douglas Rushkoff—conspicuously if you're familiar with Rushkoff's unambiguous take on futurists. Take for example his "Why Futurists Suck" post. (If you're thinking Rushkoff might have had a change of heart in the years since the 1998 article, his 2013 *Present Shock* is equally critical.) Rushkoff's continual portrayal of futurists as Illuminati-esque conspirators ("Their first job was to distract us from what made the Internet so much fun. By reframing the communications revolution as an 'Information Age,' they pulled our focus away from contact, and onto content - something that can be bought and sold.") is outlandish enough to ask what sweeping machination is responsible for Rushkoff's own popularity. Although I'm skeptical of futurists, it's really for the opposite reason. To the contrary, it seems they lack the competence for anything conspiratorial. Not that they're precisely *incompetent*—they're not a bunch of boobs—just that they're generally visionaries without vision. They're sort of like a very organized science fiction book club.

Our future nudity, at any rate, is fostered by the growing network of sensors embedded in, on and around us, delivering unheard of predictive capabilities. Most importantly, these sensors are "telemetrically" accessed and collated without us knowing or caring, or at least being able to do anything about it. Big data is a part of it…but "with very little fanfare we have left the big data era and have entered the *telemetric age* [emphasis original]." But what is telemetry?—aside from a futurist maneuver to distract the proles while they reframe our beloved big data era into something tawdry to be bought and sold. Is there anything telemetry to lend a little substance to this little naked future coinage?

"Telemetry is what divides the present from the naked future." Sorry; that quotation is somewhat unfairly removed from context (although in the book's introduction the sentence does comprise its own paragraph). Here we go: telemetry is "the process or practice of obtaining measurements in one place and relaying them for recording or display to a point at a distance. The transmission of measurements by the apparatus making them [quoted by the author from the OED]."

Telemetry allows data to be accessed without the accessor being on the scene. It turns data into big data which, harnessed with Moore's law leaps in computation, outputs strange new correlations and predictions

that we'll be increasingly familiar with in a naked future. Not even art and entertainment can escape. I agree on that point, only I'm not so sure it's going to come about quite like Tucker says it will.

Let's forget that "Art" is a fairly problematic concept and take the term at some approximate colloquial face value—a creative work that affects or in some way motivates the viewer. Although *viewer* is not really the right word as we migrate into a naked future where telemetric monitoring makes for a much better awareness of our personal tastes. *Participant* might be on the right track as long as we understand that participation is active in the intake, not the creation—we aren't going to confuse this participant with the artist. Telemetric monitoring takes in data on what kind of stories, characters, endings the subject enjoys, among other factors, and Tucker takes us on a progression of improved recommendation engines until the result is almost individually tailored. Along these lines he contrasts movies and video games and asks why movies can't be more participatory in the way video games are.

Tucker takes a look at software that's making increasingly better predictions about the success of a screenplay before the costly filming process begins. The software prompts script tweaks along various plot parameters until it's just right, quantifying success by monitoring how well the script conforms to the genre. When was the last time you heard a critic praising a movie for hewing close to genre expectations? Stanley Kubrick made one genre movie after another, but he's usually eulogized for innovating on and breaking genre norms, not conforming to them. "One day it may be available in the form of an app that screenwriters keep on their phones." (…to make sure it's impossible to flaunt convention.) Of course I'm talking about quality while Tucker is evaluating box office success, but he makes little distinction between art and diversion. Meanwhile, box office success is the measure of a single movie; although the reasons for declining theater attendance over the past few years are certainly multifaceted, could one factor be this continuous stream of "perfect scripts?"

"There is no perfect movie but, in the naked future, there may be a statistically perfect movie for *you* [emphasis original]."

Aside from the idea that at nine or ten in the evening, for example, plenty of people are putting themselves in front of a television specifically to unburden themselves of thought, not multiply decision fatigue via some choose-your-own-adventure parallel universe ("But in the naked future there is no such thing as a purely passive entertainment experience."), I'm skeptical of all this on other grounds altogether. Not that I doubt it'll happen, but I'll only accept it if we follow it all the way to the vanishing point.

The meaning value of a work of art comes not because everybody thinks it's great but because only some people think it's great. And then they organize around it. When everything's tailored for *me* there isn't an anyone else anymore. Art forms factions and coordinates consensus—if only antagonistic consensus. Art is a (species of) synchronization mechanism. The perfectly tailored entertainment loses this power. In fact we already have perfectly tailored entertainments: they're called dreams, and everyone is as endlessly infatuated with his or her dreams as bored by hearing about someone else's. In some sense Claude Shannon's specific unconcern with meaning when setting out to quantify the information content of a message is a brilliant insight itself and not just a result of meaning's slipperiness. Meaning misses the point. Or the point is that it's never unslippery. It's nonetheless our most effective synchronization technology. (Perhaps an even more powerful one will be an array of sensors that tracks our various states and issues directives in the form of feedback. We become synchronized here with our environments—the ultimate "one" with the universe so many have lusted after—and no longer, except by proxy, with one another…) Without meaning we observe only the information flow, and we are lost in the ecstasy of the phantasmagoria itself, like ascetic mystics embedded in the void, concerned no longer with the sound but only with the listening itself. (Saying whether any of this is good or bad is to be a meaning chauvinist.) At this point you are no longer the participant

but—I don't know what—target-inhabitant.

A look at the future mediascape might more compellingly have been approached via the book, turning the medium under the microscope into the microscope itself, evaluating the numerous pitfalls of today's untailored books and showing how a naked future might improve the situation. We understand books, though, mostly by analogy from the longer discussion on the future of script writing and movie making. A more personalized read (at least if we're talking about non-fiction) is a prospect I welcome, especially if it doesn't mean I have to read about MOOCs in every pop-tech book, or again about quantified self, or again about Benjamin Franklin's ledger of daily virtues. Current popular technology books seem to be written for some credulous CEO out of 90s time warp trying to get a pulse on this Internet thing, sensing a possible fresh angle for profit. Meanwhile academic books are…academic. While the author is accountable to some extent, a lot of this is just the unfortunate byproduct of varying and unidentifiable degrees of prior knowledge of individual prospective readers—the dynamics of untailored information distribution. The bigger the audience, the bigger the problem—likewise, the wider the target the more general and repetitive the information. It's an unfair arrangement for the author and the reader alike. Almost any book requires a lot of effort to write and (most) authors wouldn't embark on the task thinking their books were merely going to be skimmed. Tucker himself obviously researched his topic heavily. Yet implicit to the current non-fiction format *these books are written to skim*. There is a dangerous tension here between the dignity of the author and the dictates of the market for a medium which potentially unravels when the reader does not follow through and treat the book as a flavorless input to a speed-reading course.

The past few years have seen a lot of talk about big publishing houses and retail outlets being disintermediated under a proliferation of self-publishing options. Lower barriers of entry let more writers in on the action, providing more personalization for the reader, but through a sort of technicality by virtue of having more books to choose from. (There may be a statistically perfect book for *you*.) The concurrent improvement in filtering mechanisms (Goodreads for one), hasn't kept pace, and more choice results in more decision fatigue and buyer's remorse (can't read 'em all). It may take less time to find something worthy of reading or about the subject you're after, but that saved time may now be wasted reading about the same thing multiple times over the course of a few books. Further filtering improvements are what Tucker is getting after in this whole entertainment discussion. Only let's not treat this as the height of achievement in personalization. Let's not forget that the publishers and retailers are intermediaries between the reader and the book, not the reader and the author. The ultimate filtering mechanism—a completely personalized text—comes when the author him/herself is disintermediated. Is the book, then, any longer a medium, and if so between the reader and what?

I do admit to frequently flipping to the back cover with a sort of perverse delight to reread Rushkoff's "praise," which, with its layered intent and hidden barbs, warrants a description as embarrassing and obnoxious as *delicious*: "Any American who doesn't understand what big data has to do with everyday existence should read this book today. What's at stake in *The Naked Future* is nothing short of free will itself." When I first read this I immediately flipped to the index, but *free will* is absent. Then where is Rushkoff getting free will? That's the point; that you don't get free will or anything that smacks of it in a book exploring what happens in a world that anticipates your every move. It's omission from the index was no oversight; it wasn't at all in the text either—this, a complete oversight.

The Naked Future's best proxy is privacy. What Tucker is asking us to consider, the point of the book really, is that the growing volume of data about us will have much more predictive value societally and individually, one, the more data there is, and two, the more we share it.

But what *is* this nakedness? Being naked—nudity—for a concept with such far ranging

connotations—greater than most words, falling in and out of taboo—it's important to understand in what sense we'll be exposed. Patrick isn't at all blind to the reasons people are reticent, especially lately, to hand over lots of data about themselves. He confronts that conflict by pointing to a variety of ways people can take control over their data and only then give it away because they feel safe about how it'll be used. Our progression into the naked future looks, in a very simplified way, something like: people come to understand there is greater benefit to releasing their data; people release data to government, industry, retail and whichever additional entities can make use of it because at heart the individual is still in control; win-win-win. The problem here is twofold.

First, it assumes (at least doesn't illuminate a counter vision) that the massive organizational change brought about by this aggregated data—that we'll be organizing both more rapidly and at finer granularity—will somehow come into existence while leaving in place the institutional structures—the current paradigm of societal organization—that it will obsolesce.

Second, a naked future sounds absolutely exhausting. When I give data away I do so with the goal in mind of offloading attention, effort, and so on, freeing it up for more targeted use. But in the naked future it seems like I'm constantly receiving some sort of push notification or monitoring some data dashboard or making geotagged tweets about my current state of health. For all of the nudity there hardly seems to be any automation. In the naked future we're individually confident giving data away knowing it won't be used in a way we disapprove of because we're continuously and actively monitoring its use.

Too often I got the feeling that the path to the naked future is clearly paved, requiring that we simply get over a few social hang-ups concerning privacy before we disrobe, letting the rays of data bronze our skin, touch our genitals and penetrate thick tufts of chest hair as we strut around cigarette-ad swimming pools. The message is that the increase in data generation is inevitable. By putting up a fuss rather than taking control we're only making it harder on ourselves by losing out on the benefit. *It's inevitable, get over it.*

I fully agree that privacy as we now conceive it will increasingly come under strain in its insistence as a meaningful ideal, and I tend to enjoy a certain brand of determinism where *inevitabilities* are trotted out (they're a nice counterweight to a choose-your-life culture), but as I mentioned above, Tucker's inevitable, with all the individual effort and coordination required to sustain it, doesn't feel all that inevitable.

The most interesting part of *The Naked Future* was a point touched on just once or twice in passing. With all this data being generated, increasingly there's little space to opt out. Tucker's point was that someone's going to get the information anyway, so you might as well play an active part in managing your data. Is this really the message to be taken, though, from the idea that you'll increasingly be implicated so deeply in the surrounding data that anything interesting about you can be gleaned independent of what you yourself decide to disclose? Haven't we merely circled back to face Rushkoff's free will again? If there's effectively no *decision* to disclose it's a little problematic for Tucker's take-control action plan, but that's inevitability for you. As Tucker points out, by 2020 there'll be forty-four times more data than 2009.

Inevitability doesn't entail an absence of roadblocks. Furthermore, roadblocks shape inevitabilities. Obstacles in *The Naked Future* are too often leveled by conflating privacy and security. We might speculate that privacy is a normative phenomenon (as Mark Zuckerberg has said), but privacy can't really *die* (as our data-implication *inevitability* dictates) if this is the case. Privacy persists at least as an ideal to lament over (until one day again it rears its head in the wake of the insurrection). To kill privacy it must be encoded—actually, we need to encode security. Here, privacy is the ability to know while security is the ability to harm. Knowing is not a problem if it can't lead to harm. In Tucker's paradigm it's hard to see how a privacy breach doesn't imply (at least the possibility of) a security breach.

Tucker quotes the CTO of a continuous prediction platform “Privacy is a blip on the radar of history…Until I was eight years old, I lived in a small village in the Austrian countryside. Then my parents moved me to Vienna. I experienced, for the first time, anonymity. Nobody knew me. Now, the world is a global village. Everyone knows everyone again.” It’s an argument I’m not unsympathetic to, and one frequently brought up by Silicon Valley types to protect their business model. But the flaw in this village extrapolation is that information in the primordial village exchanged much more symmetrically, largely because there wasn’t much to know and few to know it about. It was pretty easy for everyone to keep tabs on everybody else. In the global village there’s no way to know everything about everyone else. Only in regaining that fundamental symmetry can we migrate back to the village. Of course we still don’t can’t know everything about everyone else, but with the proper security laid out that doesn’t matter; the global village is symmetric not in actual knowing, but in the ability to know.

[Continued below as comment]

Alessandro Muraro says

It's a very good book that gives you a glimpse (actually, more than that, it gives you facts) about where we're headed. Maybe a bit lengthy at times, but all is all, a great, enjoyable read.

Daniel Clausen says

This book is a journalist's journey into the world of Big Data. The book's strength is that it is thoughtfully written with a journalist's sensibility for balance and an interesting narrative. One of the drawbacks of the book is that it isn't written by a Big Data expert, it's written by a journalist with knowledge of Big Data trends because he regularly interacts with and interviews technology experts.

Another big drawback is that it is a current events book on a subject that is constantly in motion. That means that at four years old (written 2014) it already feels a little dated.

Perhaps the biggest drawback is that the book lacks a philosophy...it is essentially reported trends and stories...Big Data like so many other technologies is both good and bad!

If the book were to reach for philosophical grandeur, perhaps the best way to do it would be to take a longer historical view of data. (One chapter, the chapter on dating, essentially does this). For example, the book could have looked at how data has been shaping our world for centuries, from the first actuarial charts to the first uses of manufacturing statistics...and go on from there.

This longer story might have been one of initial excitement and fear, and then eventually of disappointment and renewed innovation.

The book could have also filled in a larger philosophical story about the relationship between modern science and traditional forms of knowledge (mysticism, folk wisdom, conspiracy). After all, Big Data is only the first in a long line of modern science innovations that have attempted to make the world smooth and problem-free creating the next generation of problems...

Such a story would also look at the rise of superstition, conspiracy, and fake news in a world that is supposed to be more "naked". With Big Data, arguably, has come Big Ignorance (and Big Conspiracy, and Big Tribalism...etc).

I think the book also misses another key story of Big Data and prediction -- the stronger and more useful the algorithm, the more likely it is to go bust in a catastrophic way. This is something explored in the writing of Nassim Nicholas Taleb (among others), but it bears repeating here because a world where people and organizations are dependent on highly nuanced algorithms for thinking is one in which a glitch could have catastrophic consequences.

The examples in finance are so numerous (you could start by looking up "Long-Term Capital Management") that I feel like I should provide an example outside of finance...how about Google's Flu Trends (see this site to get started: https://en.wikipedia.org/wiki/Google_...). Many of the examples in the world show how difficult it is to predict strategic living beings that are constantly aware that others are trying to predict their moves to gain a strategic advantage.

Having outlined all of these -- not flaws, but let's call them deficits -- I can still admire this book for what it is: thoughtful and engaging journalism.

Zoltan Istvan says

Excellent book. Recommended!

Kate says

"We predict to learn but we also resist learning. ...No statistical fact ever feels more credible than our own experience. Herein is where nature gets the last laugh; we're born predictors, but we're also bad predictors. We make up the future as we go along, get the answer wrong, and then convince ourselves we were right. This is why the inside view is so pernicious."

That's more of a 3.5, but I'll round up. Fascinating topic, of course, and he covers a very wide range of case studies and examples. I wasn't prepared for just how much of the book would be built on those versus the thinking-it-through and impact bit, though I suppose perhaps there's only so much to say about "weigh the potential risk/costs v benefits, and how much you can do about it anyway." But style got a little tiring as most examples started with "It is (insert current or future date) in (place). __ just __..."

Rj says

Picked up the book at my local library from the new & interesting reads. Tucker, a journalist who looks at future trends looks at how technology is going to change as it is used to monitor various aspects of our lives. Unlike most books that look at such trends Tucker has a balanced approach understanding that the tools of technology can be used both to monitor, in a Orwellian manner, and to improve live allowing individuals more power. It is a fascinating study of how technology, privacy, safety, security and access all intersect in our lives.

"Your life pattern is you. It's what you do, with whom, and where. It's the content that fills the vessel of your existence. A few decades ago this content was private, but also forgettable, a stream of experience that flowed into oblivion. It's now less private and the stream flows into someone's server.

Privacy hasn't diminished in importance simply because we're adding connections, embedding new sensing capabilities into our physical world, and using mobile technology in new ways. But our discussion of privacy seems to have remained in a static state of fretting for decades. One of the best defences against potential misuse is to personally get hold of your data. This sounds like a chore because it is. We should demand that this become much easier in the years ahead than it is today. Your data, and what it says about your future, belongs to your first and foremost." 29-30

"The challenge for all of us now is to make the price of overzealous or discriminatory policing both high and conspicuous. The benefits of good policing must be more readily obvious as well. The social and public costs of pestering and prosecuting people for petty crimes should be visible to all citizens, lawmakers, and police all at once." 217

"We visualize the future in the same part of the brain that we use to recall the past and we exert similar amounts of effort-measured in hemoglobin flow-to do so. Neurologically, the act of imagining a scenario is a lot like the act of remembering, says Bar. When these areas light up under fMRI, a prediction is born. That means our mental constructs of the future are a direct extensions of our lived experience, a fact of neurological functioning that is central to the way we live and organize our lives." 233

"A few years ago, across the United States from Bar's lab, Hawkings spearheaded a growing body of research to support the theory that the neocortex evolved expressly for the purpose of turning sensory data, in the form of lived experiences, into predictions. In many ways, the accomplishment he's most proud of is not a device or a company, it's the memory-prediction framework theory, a sort of unified theory for the brain purporting to explain why the brain, and specifically the neocortex, functions the way it does." 234

"...David Brin published a nonfiction book titled The Transparent Society, which discusses the future effects of ubiquitous computing. The first chapter poses two alternative futures. One saw the Orwellian vision of total state surveillance. Empowered and active citizens dominated the second scenario and they used the new capabilities of the awakened environment to check and humble those who would call themselves guardians of the public order." 238

The truth of course is always somewhere in-between these two possible scenarios. Everytime new technology offers seemingly more control for those with power, the same technology is then subverted by others and pointed back as a form of resistance to control. This is the magic of man.

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adam says

Attempts to cover too much ground and fails

I picked up The Naked Future from my local library based on the provocative title, interesting subject matter, and network-sciency cover graphics. Ultimately, the author tries to cover too much ground and delves into areas too superficially. He tries to espouse high-level wisdom about the future of big data (on civil rights, privacy concerns, predictive medicine, love), after giving accounts of his conversations with leaders in these fields.

His insights are often abstract and disconnected from the low-level facts and details presented. Often, the book jumps from topic to topic and metaphor to metaphor in a haphazard manner, confusing the main ideas with unnecessary detail or abstraction. In the end, this was a well-intentioned attempted to give a vision of tomorrow, but it was largely a waste of time. I recommend reading a different book on related subjects, such as The Signal and the Noise.

Here are some examples:
In the final, summarizing chapter, the following abstractions are all within a four-page span: machine learning as a metaphor for how the brain processes data, the brain's structure compared with the management structure of a large company, the brain's structure compared to a playing a game of Battleship, and a whirlwind tour of 500 million years of biological evolution. Each of these examples and ideas may be useful, but jumping from place to place and not sticking to a story is confusing.

Also, being a piece of science writing, I find the following quote problematic: "while the field of physics has yet to reconcile the divergent equations of Sir Isaac Newton with those of Albert Einstein, it has given us a serviceable understanding of how matter and energy interact." This is meant to be a cute aside on the development a data-driven theory of love. But there are no inconsistencies between special and general relativity with classical mechanics; all the math works out in the proper limits. What is meant, of course, is that relativity and quantum physics have divergent views. Such lack of attention, even in an aside, pervades in this book.

Peter Mcloughlin says

A report on big data and the algorithms used by business and government to predict crime, buying habits, terrorism, voting, selling, dating and credit worthiness. Anonymous companies and government know have more intimate knowledge of us than our friends and family. We create the data with every purchase and every keystroke but it goes from our hands to a shadowy world of big data companies government and marketing firms. Knowledge of what is done with this data is opaque to the ordinary user of the internet. This book shows in broad brush strokes what the numbers crunchers are doing with this data. Some of it is sinister right now but the potential for even worse abuse is there. The author is not as downbeat about our being tracked with little or no knowledge of what the trackers are doing with our data but I am not as comfortable as the author with the big data revolution. Many good things are being done with this data but the potential for severe abuse is frightening and the public seems to be complacent that no one is watching the store loaded with our data. A worrisome book.

Cari Mayhew says

Book Review by Cari Mayhew. Rating 7.5/10

This is a book about how the digital footprint we leave behind us can be used to make predictions about our future in all aspects of our lives. But are we seeing the coming to being of a dystopian science fiction, or are we tapping into a new superpower?

Every app on every device we use leaves a digital trail about us, and this has implications in the fields of medicine and the spread of infections, education and learning, and crime prediction, through to movie

preference and dating.

The book predominantly examines the value to society in general but also looks at the benefits to the individual. Of course, these benefits come at a cost to our privacy, which the book also briefly addresses. Each chapter is centered on its own topic. I will mention each but in the interests of brevity won't go into detail on each topic.

Chapter 1 begins by describing how certain apps can be extremely useful warning providers, but by the end of the chapter, we are looking at how your smartphone apps can be used to locate you, even when your GPS is turned off and you're not geo-tagging posts or tweets. With modern statistical models and enough data points, it's possible to predict where you will be down to the hour and within a square block one and a half years from now. Turning off your GPS doesn't actually make you less predictable, it just makes your predictability level harder to detect - your future remains naked.

Similarly, in Chapter 2 which examines deliberate self-tracking, Tucker notes that Fitbit users who are confused or ignorant of the device's privacy settings are inadvertently sharing the data details of their sexual activity.

This seems like frightening stuff, but then the conversation turns to more benevolent uses of such technology. Chapter 3, by way of an imagined story, examines how such technology can be used to predict the spread of dangerous infections, including the identification of new strains of virus as new mutations occur.

Chapter 4 looks at the use of such technology in weather forecasting, and how it's been used to make way for insurance against the effects of the weather for affected businesses. Chapter 5 explores how movie/book choice and ratings can be used to predict what makes a good movie/book.

We go back to the frightening stuff in Chapter 6. Here Tucker talks about how the smartphone has become the ultimate shopping accessory. Knowing what habitual time an individual wants a coffee, cig, or beer, is ideal for online advertisers, who will be able to send you a voucher/coupon or a mere suggestion right there on the spot. There could also be surveillance systems examining what you pick up and consider buying but don't put into basket /trolley. Tucker goes on to describe how data brokers such as Acxiom have begun selling on to advertisers access to not only your data to also to your future decisions.

Chapter 7 looks at education and learning, and makes the following good points: "What telemetric education offers is the chance for all students to raise their hands and be heard, without fear of confirming some unflattering, broadly held perception about their social group." And "Imagine for a moment the power of knowing beforehand how well you would perform on a test but how disempowered you would feel if that same future was naked to your competition, or to your future potential employers."

I like the title of chapter 8 "When Your Phone Says You're In Love". Here Tucker tells how online dating sites have become a living social science lab. Again here your personal details can be sold on. In the future, you could be rating your actual get-togethers on the app. Already invented is a "sociometer" which detects unconscious biological signals which show what role you're taking in a conversation, and can then produce predictions on how the rest of the conversation will go.

Chapters 9 and 10 look at predictions in the where, when and who of acts of crime. He discusses where it has worked so far. But on this Tucker says "Predictive policing in the wrong hands looks less like a boon to public safety and more like a totalitarian hammer."

The book concludes with Chapter 11, titled “The World That Anticipates Your Every Move”. Here one interviewee said as “Privacy is a blip on the radar of history.” Indeed the chapter ends with an obituary to privacy, where Tucker says “we will feel increasingly powerless against the tide of transparency rendering this planet in a new form as surely as the movement of glaciers carved our canyons and valleys.”

I’ve highlighted here the more worrisome aspects of the topics, but it’s important to note that Tucker does aim to offer a prescription for the situation, though it’s spread out in occasional paragraphs here and there rather than as a useful reference at the end. That said I found the actionable advice was rather brief and unoriginal.

Tucker presents a fair and balanced view of this important and highly relevant topic of our times, and the book is clearly well-researched. Some chapters show a little humor which was fun, but although the book is aimed at the layman, I often felt like I was reading a science textbook. The book is a real eye-opener, especially if it’s something you hadn’t given much thought to. The overall message of the book is clear: our data is already out there, but it’s ours first and foremost, and we can be savvy and use it to our advantage.

Find more of book reviews on www.bookblogbycari.com

Alice says

Very interesting and relevant. Scared me more than a little bit. For anyone who wants to begin knowing what Facebook, Google, Twitter, everyone, etc. are doing with all the data that we give them.

Laurent K. says

Nicely structured book. I really liked how the author talked in thirdperson, YES but he also sometimes got personal , for example if he had a site of the story or a small joke at the end of a topic. The beginning of the topics were interesting, however the author could introducue them better about what they are about. The titles wernt always understandable by first glance.

YHC says

It's quite an easy book to read if you have also read similar subjects. There are not that much info shocked me due to what i have read from other books, but for those who have not read any of this kind of futurist book, this book would open your mind.
It mentioned about what Big data could actually do to your life, transparent life without privacy, your even move, wherever you go, your health(heartbeats), what you eat/buy are all stored in a God like big data and sold to commercial corporations and governments for necessary usages.
FB, Twitter, all these social media are collecting your likes and dislikes, they can even match making for you with more accurate rate than you go see a fortunate teller.. XD.
The good usage of big data should be on collecting the diseases info, weather/ climate change info if we are able to establish more instant and perfect app.

Overall, it's a very fun book to read.

Jon says

Had I read this in 2014, it woud've been excellent. Unfortunately, it's full of references and studies from 2011 and earlier, which is ancient in terms of tech in 2018. In 2018, it's a good read, but it's definitely dated in a lot of places. If Tucker would write another book, I'd give it a shot.