DECEPTIVE PATTERNS
EXPOSING THE TRICKS TECH COMPANIES USE TO CONTROL YOU

HARRY BRIGNULL
CONTENTS

Acknowledgments v
Errata and feedback vi

Prologue 1

PART ONE
DIVING INTO THE WORLD OF DECEPTION

1. A primer on design industry terminology 13
2. The rise of deceptive patterns 18
3. From homo economicus to homo manipulable 24

PART TWO
THANKS FOR READING THE FREE SAMPLE

4. Now buy the book 29

About the author 31
Endnotes 35
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ERRATA AND FEEDBACK

This is a first edition and no mistakes or omissions have been identified yet. If you wish to submit or review the known errata, please visit the webpage below. Similarly, if you work for an organisation that is mentioned in this book and you wish to provide a response, please use the same page. Thank you.

www.deceptive.design/book-errata
Their faces give nothing away. It’s a Thursday afternoon in March 2021, and the Communications and Technology subcommittee of the 117th Congress is holding a joint hearing online. Three of the world’s most powerful people have been invited to give testimony in a session called ‘Disinformation Nation: Social Media’s Role in Promoting Extremism and Misinformation’. Sundar Pichai, CEO of Google; Jack Dorsey, CEO of Twitter; and Mark Zuckerberg, Chairman and CEO of Facebook.

It’s the moment I’ve been waiting for. The camera cuts to House Representative Lisa Blunt Rochester. She introduces the concept of dark patterns and defines them as ‘intentionally deceptive user interfaces that trick people’. She asks Pichai, Dorsey and Zuckerberg:

‘Would you oppose legislation that bans the use of intentionally manipulative design techniques that trick users into giving up their personal information?’

As the camera cuts to each of the CEOs, we see a stark difference. Lisa Blunt Rochester is sitting in a tiny wooden booth, connected with a grainy laptop webcam, but each one of the CEOs is evidently on a film set with professional lighting, cameras and microphones.
Picahi replies promisingly, ‘We definitely are happy to have oversight on these areas.’

Dorsey replies with just three words, ‘Open to it.’

Zuckerberg is more evasive. ‘Congresswoman, I think the principle makes sense and the details matter.’

His reply seems to antagonise Blunt Rochester, who pushes him further: ‘OK. Mr Zuckerberg, your company recently conducted this massive ad campaign on how far the internet has come in the last 25 years. Great ad. You ended with a statement: “We support updated internet regulations to address today’s challenges.” Unfortunately, the proposal that you direct your viewers to fails to address dark patterns, user manipulation, or deceptive design choices. Mr Zuckerberg, will you commit now to include deceptive design choices as part of your platform for better internet regulations?’

Zuckerberg hesitates for a moment: ‘Congresswoman I’ll... I’ll think about it. My initial response is that I feel there are other areas that I think might be more urgently in need...’

Blunt Rochester cuts him off and gives a final speech, knowing her five minutes are almost up. ‘If you say this is a desire of yours to address the issues that we face today – dark patterns goes back to 2010 – this whole issue of deceptive practices. And I hope that you will look into it! I will say [...] our children [...] our seniors, veterans, people of color, even our very democracy is at stake here. We must act and I assure you – we will assure you – we will act.’

A moving speech, but the CEOs are holding all their cards close to their chest. They know regulatory change is coming, but they don’t want to give away any more than they have to.

Lisa Blunt Rochester was spot on in her statement. The concept of dark patterns harks back to early 2010. I know this, because I coined the term; though had I known it would become so popular, I would have
taken a bit more care with the name. I remember sitting at my kitchen table in May 2010, ballpoint pen in hand. As I wrote about this topic for the first time, I was putting together a talk for a conference. ‘I’m not sure there’ll be enough here for a 20-minute presentation,’ I thought to myself – but the more I looked, the more I found. Deceptive tricks and techniques were in use all over the place and, at the time, nobody was talking about them.

A lot has changed since then.
In 2010, I defined a dark pattern as: ‘a user interface that has been carefully crafted to trick users into doing things, such as buying insurance with their purchase or signing up for recurring bills’.

This definition is now a little out of date, and today I prefer to use the term deceptive pattern, or to be pedantic, deceptive or manipulative pattern – but that’s a bit of a mouthful, so in this book I’ll use deceptive pattern as a shorthand to mean both.

At the time, I was probably the only researcher looking closely at the area of manipulative and deceptive user interface design. Now, over thirteen years later, the area has blossomed into a multidisciplinary topic involving numerous human–computer interaction (HCI) researchers, legal scholars and many other people. Of course, I can’t take credit for the work they’ve done; although I launched the initiative and defined a dozen or so of the initial terms, my role since then has mainly been that of an educator, campaigner and amplifier. I’ve worked to spread awareness, to name and shame companies, and to encourage legislators, regulators and enforcers to take action.

To understand how businesses can employ design to manipulate users for profit, let’s start with a physical example: travelling through an
airport. When you travel through London Gatwick Airport, you’re advised to ‘arrive at least two hours before your flight to allow plenty of extra time to check-in and pass through security.’ But after you go through security at Gatwick, you’re not allowed to go directly to the departure lounge. You’re forced to do something that has nothing to do with your trip, and it consumes your attention, energy and time. You have no choice in the matter – even if you’re running late.

In the industry, this is known as a ‘forced path’ store layout. It’s really just a shop that’s a long, winding corridor, packed into a rectangular footprint in the same way your gut is packed into your belly – travellers are forced in one end and come out the other. The curved path serves a useful function for the business – it forces retail displays into the centre of the traveller’s vision, making it almost impossible for them to avoid looking at the stuff on sale as they navigate their way through the area.
Think for a moment about the airline tickets and legal terms. In those documents, there’s nothing mentioned about requiring you to spend time in a retail area looking at perfumes, beauty products and alcohol before you’re allowed into the departure lounge. And consider the airport’s guidance – to arrive at least two hours before your flight. If time efficiency really was their top priority, they wouldn’t impose the forced path retail store as a mandatory step between security and the departure lounge.

This is a good example of how businesses can use design to coerce and manipulate you. Arguably, it’s also slightly deceptive in the way that the business is fully aware of the revenue-generating purpose of the forced path store, yet they don’t mention it when they ask you to arrive two hours early, and they don’t give you a shortcut to skip it.
In this example, the negative impact on travellers is minor and not particularly harmful; it’s more of a nuisance than anything else. But when you consider the fact that over 40 million people travel through Gatwick every year, you can see why it’s designed this way. If this manipulative design can get just a few percent of travellers to make a purchase who would not otherwise have done, the airport can charge a huge premium on the lease for that retail space and enjoy a lucrative relationship with the retailer.

It’s even easier to build manipulative and deceptive experiences online, because the designer has so much more within their control. When everything is virtual, anything can be tweaked to increase profitability. Here’s a simple example of a deceptive pattern on a website. You’ve probably run into something like this yourself before when signing up to something:

Excerpt from the Condé Nast Wired Magazine sign-up form (October 2010).

Did you see the trick? There’s a switch in the wording between each line of checkboxes. If you tick the boxes in the first row, you’re opting in to messages. In the second row, you tick them to opt out. Third row is opt in again, and fourth row is opt out. If you want to opt out but you’re not paying attention, chances are you’ll misunderstand at least
one of the rows and end up getting spammed. This trick enabled Condé Nast to send out more marketing messages, which meant more ‘eyeballs’ – more people seeing the information – which in turn meant more sales and more profit. If you live in the EU or the UK, you probably haven’t seen this type of deceptive pattern recently because it became illegal under the General Data Protection Regulation (GDPR)\(^9\) a few years ago.\(^{10}\) Hooray for progress!

Part of the inspiration for my work on deceptive patterns came from an interest in design patterns. A design pattern is a common and reusable solution for a problem when you’re building user interfaces (UIs). For example, if I told you to close your eyes and imagine the sign-in box for a website, you’d probably see the same thing in your mind’s eye as I do – a text field where you’d type your username, a password field below it, some kind of button that says ‘sign in’ and a link that says ‘Forgotten password?’. That’s a UI design pattern. Different industries have their own design patterns, and the idea originally comes from architecture in the built environment.\(^{11}\)

Another well-known idea is the antipattern: a common mistake when trying to solve a problem. But as I sat there, back in 2010, doodling in the margins, I realised there was another type of design pattern that nobody was talking about. It wasn’t about recommended practices or mistakes to avoid – it was about manipulative or deceptive practices that benefit the businesses that employed them and harmed the users who fell victim to them.

Although it’s taken a long time, this area of work is finally achieving a breakthrough as new laws emerge. We now have the EU GDPR, Unfair Commercial Practices Directive (UCPD), Digital Markets Act (DMA),\(^{12}\) Digital Services Act (DSA),\(^{13}\) the proposed EU Data Act,\(^{14}\) the California Privacy Rights Act (CPRA),\(^{15}\) and the Colorado Privacy Act (CPA).\(^{16}\)

The CPRA and CPA both use the same definition: ‘dark pattern means a user interface designed or manipulated with the substantial effect of subverting or impairing user autonomy, decision making, or choice’. 
Central to this definition is the concept of autonomy – for a user to be able to act according to their own goals, free from external influences, while understanding the nature of their choices. For example, if a user is tricked into sharing personal information because the legal agreement was completely hidden from them, then by definition there is no agreement: the user was denied their autonomy, since they were not free to become informed and make their own choices. However, the CPRA and CPA only cover privacy. The United States doesn’t yet have any state or federal laws that directly address deceptive patterns beyond privacy. The EU is slightly ahead in this regard, with the much broader Digital Markets Act and Digital Services Act coming into force in 2023. The DSA uses the following definition (Recital 67):

‘Dark patterns on online interfaces of online platforms are practices that materially distort or impair, either on purpose or in effect, the ability of recipients of the service to make autonomous and informed choices or decisions. Those practices can be used to persuade the recipients of the service to engage in unwanted behaviours or into undesired decisions which have negative consequences for them.’

As you can see, the DSA’s definition is similar to the CPRA and CPA. It’s about not interfering with users’ autonomy, choice and decision-making.

There are a few different ways to think about deceptive patterns, and the legal perspective is just one of them. For example, if your background is UI design or engineering, you may be more interested in the mechanics of how they’re put together. If you’re coming from psychology or HCI then you may be more interested in how they prey on the human mind. If you’re an ethicist then you may be interested in the broader philosophical implications. In the coming chapters, this book will touch on each of these perspectives.

My main point here is that deceptive patterns are not just a niche curiosity anymore. If you work in the tech industry you need to under-
stand them, particularly since some types are already illegal, with even more activity coming from lawmakers, regulators and enforcers.¹⁷

Before we go much further, you’ll need an understanding of how the design industry has evolved too.
CHAPTER 1
A PRIMER ON DESIGN
INDUSTRY TERMINOLOGY

It’s easy to think of design as how things look. Fonts, colours, textures, grids, mood boards – that sort of thing. This is *graphic design*: it’s still important in its own way, but it’s now just a small part of what the digital design industry has become.

Today, design is far less about how you decorate things, and far more about how you persuade and influence people into doing things. It’s mainly about tracking, testing, psychology, behavioural economics, statistics and empirical scientific research. In other words, it’s all about achieving business goals and making money.

You might not realise it, but when you use popular apps or websites, the details of everything you click on and scroll through usually gets recorded. Then it gets analysed, carefully. In big companies like Meta, Amazon, Netflix and Google, they have teams of people paid six-figure salaries, tasked to work out how to make more money out of you. Every day, your behaviour is tracked and you take part in quantitative research (e.g. ‘A/B tests’ or ‘multivariate tests’) to work out what will make you click, buy or agree to the legal terms. It’s important to understand that the same research methodologies can be used to help or harm users. It depends on the intent of the business owner. It just so happens that deceptive patterns are easy to build and deliver measur-
able outcomes, so deception is commonplace unless a business owner takes a strong position on preventing it from happening.

Deceptive patterns aren’t always the result of rigorous research and careful craftsmanship – sometimes they’re just profitable accidents. Consider the example of a subscription offer that doesn’t clearly explain the nature of the ongoing charges, just because the writer didn’t take due care. This might result in a surge of revenue, which the business may then come to rely on, and they may not even understand why.

I’m going to use some industry terms in this book, so I’ll define them here.

**PRODUCT**

This is the general term that’s used to refer to an app or a website or any other piece of software that people use. The Amazon app is a product. So is the Facebook website. You get the general idea. Sometimes companies prefer to refer to their business as offering a ‘service’, particularly if it involves customers interacting with different people and numerous touchpoints over a period of time.

**PRODUCT MANAGERS**

In most modern organisations, a single individual is directly responsible for all of the decision-making for a given product or feature. This person is known as the product manager (PM). They’re usually like a mini CEO, responsible for everything within the realm assigned to them, though the exact title and job description varies. If a deceptive pattern is created, then the PM of that product should know about it. They should know why it’s been created, what purpose it serves, how many users interact with it and how it makes money. This is handy to know if you’re ever involved in choosing who to subpoena in a class action lawsuit.
**USERS**

A user is the category of person for whom the product is intended, rather than ‘all humans on the planet’. In the industry, we sometimes say active users for people who regularly use a product, and target users to include those for whom it is intended, but who might not be using it yet. The terms ‘monthly active users’ (MAU) and ‘daily active users’ (DAU) are also commonly used when measuring the success of a product, and deceptive patterns are often used to boost these numbers.

**USER INTERFACE DESIGN**

An interface is the point at which two things meet and interact. If you glue two pieces of wood together, the glue is the interface. In this case, instead of having two pieces of wood, you have a product and a user. The glue in the middle is the user interface (UI). With a screen-based device, we’re mainly talking about text, images, boxes and buttons: these components make up the user interface. With a voice-oriented device, like an Amazon Echo, the user interface is the words or audio that comes out of its speaker, and the commands it recognises when you speak into its microphone.

**USER EXPERIENCE DESIGN**

A user experience (UX) is what you perceive or feel when you interact with a product’s user interface over a period of time. If the interface is hard to use, then you’ll have a negative experience.

However, not all user experiences have the same strategic goals. For example, when you pay for something online, you want the checkout to be pain-free and quick. Most form-filling experiences are like this – you don’t want it to be fun, you want it to be done. In this context, usability and efficiency are paramount. Conversely, when you switch on a Nintendo or put on an Oculus headset, you want to savour every moment of the experience. In this context, emotions and entertainment matter.
Of course, there are many other kinds of human endeavour that need different design considerations. If you’re designing an educational product, you need to understand how people learn. If you’re designing the controls for an X-ray machine, safety is one of your biggest concerns. The list goes on and on. It’s the job of a UX designer to think about these things. A UX designer takes a business’s goals and marries them up with an understanding of user needs and user psychology. UX designers typically create sketches, diagrams and models – things that help with thinking and collaboration, forming a bridge between the people in the different roles in their team: product managers, researchers, technical subject matter experts and UI designers.

Unfortunately, the design industry has very few universally recognised certifications, or universally defined job titles, roles and responsibilities. Each company tends to use slightly different terminology and processes.

**ALTERNATIVE TERMS FOR DECEPTIVE PATTERNS**

Although the term *dark pattern* is still in use by some people, we should aim to phase it out and use more inclusive terminology that avoids negative associations. My preferred term is *deceptive pattern*, although if I am working with lawyers, I use the longer term *deceptive or manipulative pattern*, since not all of these patterns are deceptive. Various groups around the world use different terms to mean broadly the same thing:

- **harmful online choice architecture**: this term is used by the UK’s Competitions and Markets Authority (CMA).
- **asshole design**: a colloquial term, used on Reddit and other forums.
- **dark nudge**: this term is sometimes used by behavioural economists, building on Richard Thaler and Cass Sunstein’s term ‘nudge’.
- **sludge**: a term that specifically refers to obstructive design, which Cass Sunstein has written about extensively.
It is unlikely we’ll reach a universally agreed term any time soon, since this area of work now overlaps with legislation and regulation. For example, the word *deceptive* has a narrow technical definition in the United States at a federal level (due to the FTC Act), so the term *deceptive pattern* would be used very cautiously by US legal professionals (unlike in this book where I use it as a broad term).¹ Similarly, *dark pattern* has recently been defined in EU law, so it will continue to be used there despite its shortcomings. My view is that if you’re not a lawyer or involved in legal systems, it’s sensible to just be clear and descriptive about the design patterns you are talking about, and accept that there may be some movement in the terminology for this stuff as time passes.
When I started working on deceptive patterns, I was a little naive. I thought they might be eradicated if we could name and shame the companies that use these practices. Or at the very least, perhaps we could encourage UI and UX designers to use a code of ethics that would reduce the number of deceptive patterns in existence.

This approach didn’t work. In fact, things have become a lot worse since then. Deceptive patterns are everywhere now – there’s even a tip line that takes reports from concerned users and relays them to policymakers and enforcers around the world.\(^1\) The fact we need a tip line at all means there’s clearly more to do.

To be fair though, deceptive patterns didn’t appear overnight. Deception is part of being human – in fact, it’s so common in the animal kingdom that we can even think of deception as a feature of life itself.\(^2\) The cover of this book features a Venus flytrap (\textit{Dionaea muscipula}). This plant releases a scent that mimics the bouquet of fruits and flowers. Insects are attracted, and when they touch its sensory hairs inside the jaws, it snaps shut and traps the prey. This image is intended to be emblematic of unscrupulous tech companies who trick and trap their users using deceptive patterns.
Many historical stories and myths revolve around deception, such as ‘taking the King’s shilling’. In the 18th and 19th centuries, Britain spent a lot of time at war. But a career in the army or navy during wartime was not very attractive. With volunteers short on the ground, press gangs emerged to aggressively encourage recruitment, offering a shilling for every man who joined up. As the story goes, the act of receiving the coin was seen as a binding agreement, so unscrupulous recruiters would slip the coin into a sailor’s pocket or tankard of beer. When it entered their possession, the deal was done, and the men would be forced into naval servitude. Myth or not, the analogy with deceptive patterns is a strong one. Whether it’s clicking an ambiguously labelled button in a user interface or receiving a drink containing a hidden coin, it’s obvious that there’s a problem with the definition of consent if a person has no recourse after such a small, unintentional act.

It’s useful to think about what makes commercial deception and manipulation different today versus the pre-internet era. There are some aspects of modern technology that have acted as an accelerant or a catalyst, intensifying and spreading these practices.

**THE RISE OF METRICS-DRIVEN CULTURE**

The idea of being driven by metrics dates back a long way: there’s archeological evidence of accounting records from Mesopotamia, 7,000 years ago. Crude as it may have been then, human beings have got better at measuring things over time, and we’re now fanatical about measuring things accurately.

What’s changed is that the barrier to measuring things is now much, much lower. You don’t need to be particularly clever or have a lot of capital to start measuring anything and everything you do in a business environment, and to start using data analysis to inform your business decisions.

In fact, metrics-driven management can be quite easy. You work out what metrics matter to your business, then you reward your teams for
pursuing them using management techniques like performance-related pay, target metrics, bonuses and promotions. Of course, rewarding people for meeting a goal is almost the same as punishing them for not meeting it. In countries with less stringent labour standards, some companies use a management technique called ‘stack ranking’. This involves rating employees according to their performance on various measures, arranging them in rank order and then getting rid of the lowest performers. If an employee’s healthcare or immigration status is tied to their continued employment, this creates an enormous pressure on employees to do anything they can to hit their targets.

The web has also made it much easier to build and optimise deceptive patterns. With that in mind, I’d attribute the rise of deceptive patterns in software to the following general factors.

**EASIER TRACKING**

Before the internet, it wasn’t easy to observe people without them being painfully aware of being watched. The traditional observation method was to send researchers to a store and have them stand there with a clipboard.³

But field researchers are costly and can only look at one thing at a time. Today, all you need to do is add a snippet of JavaScript⁴ to your website to get in-depth tracking that observes every conceivable behaviour of every user of your product simultaneously, and have it recorded into a huge database in the cloud. Business owners have also noticed another advantage to online tracking. Despite it being more invasive than ever before, people don’t feel anywhere near as worried about their privacy being invaded – because they don’t feel human eyes on them. All that tracking happens behind the scenes, out of sight and out of mind.

Then you’ve got the data processing. Before the internet, it was paperwork. Thousands of pieces of paper. Getting all the clipboards together, transcribing notes and recording them in a ledger. Doing calculations by hand to work out how many people did what, when, and how that impacted the company’s net income. Today, all of that calculation
happens in the blink of an eye. Anyone can do it, using web-based software products like Google Analytics, Adobe Analytics, Mixpanel, Hotjar, or Amplitude.

These tools can give a wide manner of different insights: which ads or channels are driving traffic online, which pages are most effective at persuading users to take actions, the step in a series of pages at which users give up because they’re confused or frustrated, and more. All of these insights are then looped back into the design process, where changes are made to the product to boost conversion rates: the proportion of people who complete an action compared to those who do not.

**EASIER A/B TESTING**

A/B testing was first used commercially in the early 20th century, but in those days it was an awkward, painstaking process. You could do it with newspaper ads: you’d run one version of your ad with a coupon, and another version with a different coupon. The version that won was the one that got the most coupons used. In those days, all the work was done by people; coupons delivered back to the agency were manually sorted and tallied by admin staff. It was a load of work and, of course, if your business wasn’t all about advertising general consumer products to the masses, you were stuck.

The limitations of the physical world mean you can’t apply the same kind of A/B testing to physical products and services as to digital without a great deal of cost and uncertainty. For example, if you have a shop on the high street, you can’t change the store layout from one customer to the next. Perhaps if you were Cobb from the film *Inception*, you’d be able to click your fingers and rearrange your shop floor at a whim. In the digital world, *Inception*-like remodelling is trivially easy. You can make two versions of a page or feature and easily find out which performs better. For example, version A of a page might say ‘20 other people are looking at this item’, while version B of the same page might say ‘Only 2 items left in stock’. Your A/B testing software then deploys version A to a random sample of users and version B to another. After the test is complete, your A/B testing software will
automatically calculate statistics for you, telling you if either of the
designs performed significantly better than the other on the measured
conversion rate (purchases completed, for instance). You don’t even
need to understand the statistics, as the results are usually dumbed
down into simple sentences for you. No magic, cement, bricks or PhD
needed. In fact, creating an A/B test today is as simple as signing up to
a product like VWO or Optimizely free of charge and filling in a few
forms.

A/B testing doesn’t judge whether a particular design is actually better
or worse for the user – it just provides statistics as to whether design A
or B performed better on your chosen metric. This means A/B testing
opens a door towards deceptive patterns, because when a business
tests a deceptive pattern against a more neutral pattern, typically it’s
found to perform better on the chosen metric. Why? Because tricking
or trapping users can be more effective than persuading them; and also
because persuasion is frequently combined with deception, which means
the overall page has two shots at capturing the user. It can start out by
trying to persuade the user to complete the desired action. Then, if the
user isn’t successfully persuaded, the deceptive pattern has a chance to
get them to complete the desired action through nefarious means.
Imagine some persuasive content followed by a preselected checkbox,
for example. Some users will be persuaded by the content and will be
happy with the default. Others won’t be persuaded and also won’t
notice the preselected checkbox, so they’ll end up being tricked into
opting into something they didn’t want.

When a deceptive pattern wins an A/B test, it’s often a direct source of
revenue, with statistics to prove its effectiveness. In a metrics-driven
environment, it can be very hard for employees to push back against
this and encourage a more user-friendly – but less profitable –
approach.

COPYCAT DESIGN

It was Oscar Wilde who said, ‘Imitation is the sincerest form of flattery
that mediocrity can pay to greatness’. Some tech companies have been
very successful in driving up conversion rates by using deceptive patterns. In response, others have copied them. This isn’t at all surprising. If you saw a competitor successfully making money for years without any legal or regulatory consequences, then why wouldn’t you copy them?
To understand deceptive patterns, we need to understand some concepts from the field of economics. For a long time, economists believed humans were perfect information-processing machines – able to consume, understand and reason with all the information provided to them at all times. They called this idea ‘homo economicus’. If you think about the number of mistakes we all make in our daily lives, you’ll know this is a really daft idea. Still, it’s understandable. Economists needed to start somewhere, and they also needed to start with a relatively simple model of how humans behave, otherwise the maths gets really complicated.

It’s only relatively recently – in the late 20th century – that economists have updated their views. It was considered groundbreaking when Herbert Simon introduced the idea of ‘bounded rationality’. He posited that ‘both the knowledge and the computational power of the decision maker are severely limited’ and ‘we must distinguish between the real world and the actor’s perception of it and reasoning about it’. In other words, we can only remember a certain amount of stuff before we start forgetting; we can only do a certain level of mental arithmetic before we get it wrong; and we can only read so much complex text before we become fatigued and start to misunderstand things.
To be even more reductionist, bounded rationality means we muddle through life doing our best with limited faculties. As someone who once fell down the stairs at night because I had forgotten that I’d moved house, I can attest to that.

More recently, behavioural economics has greatly extended the idea of bounded rationality. Richard Thaler is considered one of the founders of behavioural economics, and he won the Nobel prize in 2017 for ‘incorporating psychologically realistic assumptions into analyses of economic decision-making’.² It turns out that understanding the ways in which people can do dumb things is really useful for economic modelling. Particularly when it comes to understanding the causes of the common mistakes we all make.³

‘Real people have trouble with long division if they don’t have a calculator, sometimes forget their spouse’s birthday [...] They are not homo economicus; they are homo sapiens.’

—Thaler and Sunstein (2008)

Physically, our bodies have lots of common flaws. For example, the trachea and oesophagus are very close to each other. Most of us are familiar with the dangers of accidental choking. Knowing that flaw and sharing the knowledge has helped humanity a great deal. The same applies to human reasoning and decision-making. If we can understand ourselves better, the more likely it is that we’ll be in a position to overcome our weaknesses.

Most psychology researchers and theorists are motivated by this honourable goal: improving the human condition. There’s even a branch of applied psychology – human factors and ergonomics – which aims to ‘reduce human error, increase productivity, and enhance safety and comfort’.⁴ In a nutshell, the aim is to understand how the human mind works, and then use those insights to help people make better decisions.
Unfortunately, not everyone is motivated by kindness. Some see human weakness as a commercial opportunity. Instead of thinking of humans as homo economicus, it is perhaps more useful to think of us as ‘homo manipulable’: imperfect and vulnerable to control by others in ways we may not even notice.²

To recap, this chapter has explored the rise of deceptive patterns in the digital world and the reasons behind their ubiquity. Several key factors are identified as contributing to the proliferation of deceptive patterns, including the emergence of a metrics-driven culture, the ease of tracking and data processing, the widespread use of A/B testing, and the prevalence of copycat design in the tech industry. Over the past few decades, well-intentioned academic research has revealed weaknesses in human reasoning and decision-making. Today, these insights are used to manipulate users for profit, which is a far cry from the original intent of the research.
PART TWO
THANKS FOR READING THE FREE SAMPLE
If you enjoyed this, please consider buying the book, due for release on August 1st, 2023.

Available as Hardback, Paperback, Kindle and DRM-free eBook formats. Visit the website for more details:

https://www.deceptive.design/book
ABOUT THE AUTHOR
Since 2010, Harry Brignull has dedicated his career to understanding and exposing the manipulative and deceptive techniques that are employed to exploit users online. He is credited with coining a number of the terms that are now popularly used in this research area, and is the founder of the website deceptive.design (formerly darkpatterns.org). He has worked as an expert witness on a number of cases about decep-
tive patterns, including Nichols v. Noom Inc. (case 1:20-cv-03677), Arena v. Intuit Inc. (Case 3:19-cv-02546) and FTC v. Publishers Clearing House LLC (Case 2:23-cv-04735). Harry is also an accomplished user experience practitioner, having worked for organisations that include Smart Pension, Spotify, Pearson, HMRC, and the Telegraph newspaper.
I. DIVING INTO THE WORLD OF DECEPTION

1. Under advice from the Tech Policy Design Lab of the World Wide Web Foundation, I have stopped using the term ‘dark pattern’ and now use ‘deceptive pattern’. The change reflects a commitment to avoiding language that might inadvertently carry racist associations. In this book, the term ‘dark pattern’ is used only when referring to laws, quotations and research papers that use the term.

2. This book is not a legal textbook. When the word ‘deceptive’ is used in this book, it is not intended to confer any sort of legal category or judgement. Please consider it to be intended as a like-for-like replacement of the legacy term ‘dark pattern’. In this book, the term ‘deceptive pattern’ is generally intended as a shorthand for the term ‘deceptive or manipulative pattern’.


9. Article 4 of GDPR states “‘consent’ of the data subject means any freely given, specific, informed and unambiguous indication of the data subject’s wishes by which he or she, by a statement or by a clear affirmative action, signifies agreement to the processing of personal data relating to him or her.”


17. By enforcer I mean any entity that acts to ensure compliance with legal regulations and protects consumers from deceptive patterns, either directly or indirectly. Many regulators are enforcers (e.g. the Federal Trade Commission, the Competition and Markets Authority), but enforcement also can occur via private law firms, consumer advocacy groups, and others.

1. A PRIMER ON DESIGN INDUSTRY TERMINOLOGY

1. A number of the patterns described in this book are not deceptive under the FTC Act’s definition of the term deceptive, e.g. confirm-shaming, nagging or forced action. Those sorts of patterns are better described as manipulative. Since this book is not a legal text, I have stuck with the term deceptive patterns throughout and intend it as a synonym to the term dark patterns as used by the FTC and other parties in the US.

2. THE RISE OF DECEPTIVE PATTERNS


4. JavaScript is a programming language that is typically run in web browsers, allowing websites to be interactive and dynamic.

5. You may also have heard of split testing and multivariate testing (MVT). Both are conceptually similar to A/B testing with some technical differences.

3. FROM HOMO ECONOMICUS TO HOMO MANIPULABLE


