DESIGNED

A designer's guide on how to lead inside the tech industry

EMMA CARTER





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Mark, and the 24 years of support, laughter and the many, many adventures; for your honesty—and the funny faces you pull when I'm trying to concentrate on writing.

Dearest James, my little problem solver; at the tender age of 6, when I tell you we 'can't' do something, you always have several practical solutions to the problem. Never lose your enthusiasm for learning and problem solving.

Little Harriet, my almost 4 year-old luminary who loves to experiment and see what is possible. Never lose your wild and extraordinary imagination.

I love you more than chocolate cake with sprinkles on top and love hearts.



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here has never been a better time to embark on a career in design. Designers are in high demand, and there are countless potential career paths. Design is required for almost every industry, and there is a growing

number of design specialisations. I have been fortunate to experience some of these, including publishing, advertising, marketing, branding, packaging, signage, multimedia and digital. I've seen society's expectations of designers change as, increasingly, designers become technologists. The path of innovation and creativity is enabled by new and rapidly evolving technologies which, in the hands of talented designers, can solve our most urgent problems. But to deliver true innovation, designers must be accomplished researchers, good consultants, effective communicators and trusted collaborators. Designers walk the line between art and science, as they create

new experiences that deliver measurable value to consumers.

Emma Carter is well travelled when it comes to design paths, having herself led the design of products and brands crossing many mediums and domains. During her career, she has seen entire new frontiers of design and technology open up as digital has taken off and created new opportunities for innovation. This book is the result of extensive research with designers and business leaders across the globe and across different industries.

DesignedUp offers readers many insights into the central role of design in organisations today. Increasingly design is recognised as being indispensable to the creation of competitive advantage, and this realisation is driving the ongoing acquisition of design agencies by large consultancies, tech giants and businesses across the globe.

The opportunities for designers to pick meaningful career paths have broadened. Navigating the many options can be daunting, but *DesignedUp* can help designers understand the differences between working with a technology firm, a consultancy, an agency or a product company. Emma has also run her own agency, and she understands the challenge of going out on one's own and building a brand and a business from nothing.

Many designers allow their careers to be shaped by happenstance and circumstances seemingly outside of their control. This is true of much of my own career. Whilst I made some deliberate choices like moving into digital after a career in print, I also found myself in the situation of working for a small agency that was acquired by a big global consulting firm.

I wish I had known then what to expect, but this was in the early days of digital, before the .com crash of 2000. In the leadup to the acquisition, there was much nervous trepidation amongst our team of designers and developers. The acquiring company did little to set our minds at ease, sending us their *'Dressed to Win'* clothing policy as we prepared for our physical relocation to their shiny CBD office tower.

Amongst the corporate Country Road suits and twinsets in that humourless policy, there was a section titled 'What NOT to wear', which resembled most of my 90s grunge wardrobe. I also suffered the existential discomfort of knowing that my new employer had not chosen me, but rather had chosen the agency I worked for. I probably came across as a dubious denimclad introvert with a portfolio that they had never seen. They had no idea about my skills and experience as a designer.

Since then, I have learnt to communicate the value of design and promote my own capabilities to my colleagues, clients and leadership, but self-promotion does not come naturally to many.

For designers to be effective in large consulting and technology firms, they need to work on their influence. They need to communicate the value of their work and talk about their process. This is particularly true for designers in creative agencies that get acquired by larger firms looking to increase their design capability.

From my own experience working in both global consulting and technology firms, leaders often have a very narrow understanding of the role of design. Design is often reduced to an aesthetic capability focused upon the form rather than the function of a product or service.

Designers know that form follows function. Many leadership teams fail to recognise the real opportunities presented by skilled designers—to solve

Designers need to communicate the value of their work and talk about their process.

problems and create novel solutions, tested and validated by end users. This is the real work of the designer, regardless of their chosen field of specialisation, and it can't happen from within an ivory tower. Designers who can clearly articulate their value and their process are the ones that will succeed in large technology firms. To achieve this, designers need to design in the open, collaborating with their teams, stakeholders and technologists.

Designers who can make their process visible and invite others in to participate will be better understood, respected and listened to. In my work, this involves pairing with software engineers, sketching ideas with end users and sharing the failures and successes with stakeholders. I have often seen siloed UX teams fail within large organisations because the designers weren't visible to the business and they weren't working in agile lockstep with delivery teams.

In contrast to many large technology firms, my own employer, Thoughtworks[®], has taken a different approach to building our design capabilities, primarily through organic growth. We have recruited designers from across the world, evaluating them on more than just their portfolio, seeking to identify like-minded collaborators who understand agile ways of working and are willing to embed themselves inside delivery teams, solving customer challenges as a team.

However, as we have grown and become a public company, this strategy is starting to change, and we have indeed acquired agencies with talented designers. However, our due diligence is focused on alignment on our ways of working to ensure we continue to empower designers and provide environments where they can have a positive impact.

For design leaders, there is much we can do to ensure we support designers early in their careers. For designers to succeed within large organisations, they need guidance and strategies to improve their influence, first within their teams and then beyond, within their organisations and within their local communities.

When working with large, distributed teams, it is important to share our design principles and common ways of working, provide frameworks for mentoring and pairing, and ensure that good platforms exist to encourage community building and knowledge sharing. This has never been more important as we are increasingly working from home after the pandemic changed our working lives forever.

For designers to be effective, they need the right tools and practices to connect with their users, their stakeholders and teams. I believe that *DesignedUp* will help readers to understand how designers can have both a positive influence within the organisation and a genuine impact in the world.

Kate Linton Head of Design, Thoughtworks

We call someone a leader not because they are in charge but because they have the courage to go first. To risk first. To trust first. First into the unknown.

Sinek

















ou might be wondering not only 'how did we get here?', but also how I got to this point in my career. Why should I, of all people, be giving advice on how to become 'DesignedUp', and what on earth do I know about being a designer in the tech consulting world?

I always knew a creative path was for me. Growing up in the UK enabled me to experience a vast array of design disciplines from a young age; my mum took me to specialist art classes after school when I was 10 years old, and the secondary school I attended enabled me to take separate subjects in fine art, graphic design, 3D and woodwork, opening my world to endless possibilities and enabling me to take a different lens to solve each problem.

My passion for design and solving problems took me down the graphic design path; however, I knew the world at the time was changing, and the future was heading towards a more digital world. This set the path for my choice in design degree that covered both digital and traditional forms of graphic design, with a strong focus on the fundamentals and foundations of design. Being curious about design, technology, the user and what the future would hold set the direction for my final major degree project. I guesstimated what the future would be like in 15 years' time and designed solutions that would bring together design, usability and technology to enhance users' lives. Fast-forward to today—it's interesting to see how some of my predictions came true and are used by millions every day, such as smart watches, speech to text and speech translation into other languages, showing how our tiny devices enable us to control our smart home when we're miles away. If only I'd had the foresight to go ahead and make them a reality back then!

At 25 I was spending my time travelling between France and London. It was during this transient time that I founded a design agency, which later become an award winner. We focused on the total brand experience, bringing branding, traditional and digital design together to ensure the brand purpose and customer experience were considered at every touchpoint. Clients included renowned retail brand Jack Wills[®]; Simon Dixon, CEO and co-founder of BnkToTheFuture, now the largest global online investment platform, investing in FinTech, blockchain and bitcoin companies; Steve Bolton, founder of the largest property franchise in the UK; and Mike Harris, founding CEO of Firstdirect, CEO of Mercury Communications[®], founding CEO of Egg Banking plc and co-founder of semantic web company Garlik[®].

Simon, Steve and Mike became trusted mentors, and Simon and his wife Bliss's encouragement resulted in the successful launch of my first book, *Beyond the Logo*,*

^{*} Carter, E. (2013). Beyond the Logo. Beyond Creative Thinking. ISBN-13: 978-0957521407.

which became a best seller on Amazon[®]. Wanting to add that extra element and mix traditional design with future tech, the book uses augmented reality (AR) to bring its contents to life. It's the first branding and design book to use AR.

My career and life then moved halfway round the world to Australia, where my husband and I decided to embark on a new adventure 'down under'. It was then that I decided to try life on the other side of the fence after being approached by Thoughtworks[®], a global tech consultancy, to bring my design knowledge into the world of tech consulting. My career went from a design agency, where I focused solely on managing client expectations, to include navigating the world of agile development as a minority among tech consultants—some of whom didn't quite understand the value of design or hadn't worked with a designer before. Like technology, the organisation is forever changing and adapting to become a better version of itself, and Thoughtworks is now seen as a leading global technology consultancy that integrates strategy, design and software engineering. I'm now a Principal Experience Designer and part of the global design leadership team at Thoughtworks.

Having run an agency and worked in a technology consultancy, I've seen how models operate and know the different skills and mindset required from a designer in each. Yes, there are similarities, but consultants need to show more than just good *design* skills; they need good *consulting* skills and the ability to think quickly for themselves, confidently helping their clients to understand the reason for their choice of direction, design and risks. More than that, design leaders in a tech consultancy need to be true ambassadors of design, understand technology constraints and business needs and steer organisations towards understanding and valuing design, embedding it into every delivery team.

Throughout my career, I've been approached by many designers wanting to know how they can take the lead for themselves. And so—through a series of interviews conducted with various designers and design leaders in the consulting world—I've gathered together insights and experience, including my own, to show what it really takes to go from designer to design leader in a tech consultancy.

As you embark on your own journey to becoming DesignedUp, I'd love to hear about your successes, challenges and failures—the more we share, the more we can learn. Please feel free to get in touch with me on LinkedIn[®] at https://www.linkedin.com/in/ emmacartersealey/

Enjoy the journey!



We've seen a number of consultancies acquiring design agencies in recent years in a bid to fast-track their design capabilities. While many designers have been navigating these new and different worlds, some have chosen to leave the design agency world and independently join tech and business consultancies. In this Introduction you'll gain an understanding of how consultancies are growing their design capabilities, how to lead as a designer inside a large tech consultancy and, through real-life examples, see how a traditional design company has adopted the use of AR and VR to revolutionise how they work and avoid losing their jobs to cheaper overseas providers.

he design career path was once agency focused. You would join as a junior and work your way up to Art or Creative Director and so on. When I started my career, most agencies focused on one area—web design, advertising, print, branding, etc. Few had started to make the shift into multi-disciplinary agencies.

Digital agencies would work in what we now refer to as 'waterfall', where designers do their thing and then hand over to the development team. I was fortunate enough to start out working alongside developers;

therefore, I've always been used to collaborating to ensure the experience is the best it can be through pushing the expectations of technology.

The moving tide of change

Since 2004, over one hundred design-related companies have been acquired, over sixty percent of them since 2015.

John Maeda, 2019 Design in Tech Report Technology x Business x Design

Because of the many acquisitions and companies that embrace design thinking without really knowing what it really means or entails, designers have been left in a position where they are having to navigate a new world of tech and business while explaining what design is and how it should work in this new world. Designers, especially those in the consulting world, can no longer just design; they need to be consultants first and designers second and lead their teams and clients to understand the nuances of design.

Technology plays a huge role in our lives today, and this isn't going to slow down. Our expectations as users constantly demand more from the experience we have when using technology—we expect it to make our jobs and lives increasingly easier. We no longer want to just track our fitness and buy a new pair of trainers when the soles wear out; we want our trainers to tell us when we need an upgrade and what type of shoe best suits our feet for performance. We no longer want to wait for public transport that's rarely on time; we want the convenience of hopping on a scooter or getting the nearest rideshare. We can no longer wait a few days for an online order to arrive; we want it to arrive the same day. We want convenience and we want it now!

introduction

And we fully expect the same conveniences that we enjoy in our everyday lives to be replicated in the software and technology we use at work. Unfortunately, the majority of organisations find it hard to improve internal software systems due to costs, legacy technical infrastructure, many systems not being built to 'talk to one another' and so on. This is gradually changing but is going to take longer than the prioritised consumerfacing technology.

However, it's vital that organisations focus on improving these internal systems because of the hugely positive impact the increased efficiency will have on their bottom line. Mundane tasks can be automated, leaving staff time to work on more valuable jobs, and the time it takes to complete jobs can be reduced, leading to more work being won. Staff, no longer bogged down by repetitive, low-value tasks, will experience increased job satisfaction, which can lead to their being even more efficient and productive.

Solving these internal system issues and meeting the ever-increasing expectations of staff can't be achieved with technology alone—it requires the help of designers to fully understand the problem, empathise with users, design better solutions and test them properly.

The technology industry itself is also changing to meet business and customer demands and adopt better delivery practices. Using agile (or a form of agile) to deliver software and digital products is now commonplace. It enables companies to deliver faster to customers, test ideas and get feedback so they can constantly improve through technology advances and stay ahead of customer expectations. For example, Etsy[®] deploys code 50 times a day to its production servers and now has fewer disruptions than when the company used a waterfall approach. Amazon[®] engineers deploy code every 11.7 seconds on average, reducing the number and duration of outages while increasing revenue. And Netflix[®] engineers deploy code thousands of times a day.

These deployments span a whole host of improvements. Some will be 'tech debt' to improve the internal quality of the system, and although this doesn't directly affect the user, it does affect the ability of the team to make changes at speed, which will eventually have an impact on the user experience. There will also be a whole host of new features, bug fixes, UX/ UI improvements and a lot of A/B testing. Some of the periodical bigger changes will be obvious to users, but if you look closely enough at Netflix, for instance, you'll see minor changes happening all the time.

Adopting this approach of continuous design and delivery shows how quickly we can get an idea out into the world and get customer feedback to help drive the perpetual loop.

5

UAP: Technology, design and art working in harmony

Urban Art Projects (UAP) collaborates with emerging and established artists, architects, developers and designers to build art and installations for the public realm. Their projects include **Florentijn Hofman's 'Kraken'** in Shenzhen, China, and the **J. Mayer H. and Partners 'XXX Times Square with Love'** (starting on page 10) in New York City.

A few years ago, they started looking at how they could use technology to improve on their traditional ways of working—how it could take away some of the less interesting parts of their jobs, improve their processes and help them create more accurate designs—and it's had a huge impact. For instance, by introducing augmented reality (AR) and virtual reality (VR), their designers are now able to take an artist's model, upscale it, use VR to build and manipulate the design and then use AR with Google[®] Glass[®] to shortcut some of the tedious planning processes and enable craftsmen to get to the build stage much faster.

One of the first robotic applications they tested was using a robotic arm to mill sand moulds for the production of **Emily Floyd's 'Poll'** (starting on page 14), the first of an edition of five sculptural parrots. Milling the moulds bypassed the need to create physical patterns to form sand moulds (the traditional approach for sand casting), allowing the sculpting to take place in a virtual reality environment. Through robotics, UAP was also able to build a system for linishing stainless steel panels—a finishing technique that smooths and polishes—which enabled them to create a work for artist **Lindy Lee, 'The Ripples of 1,000 Elemental Affirmations'** (see page 16)—the only supplier in Australia that could provide this service.

In an interview with UAP, I asked Gilbert Guaring, Head of Marketing & Communications, how the evolution and expansion happened.

UAP's creative process and the wide range of projects we deliver have been instrumental in our engagement with technological experimentation. The range of project types mean that, day to day, we have a lot of problem-solving challenges. This relationship and

Florentijn Hofman, Kraken 2017. Images courtesy of the artist and UAP | Urban Art Projects. Photography by Charlie Xia. (Right and next page.) frequency of problem solving makes it easier to test something new, even if we do have a



backup methodology. In addition to that, we have a courageous and talented team and a culture instilled by Matthew and Daniel Tobin's fearless approach to trying something new.

The most important aspect of this process is leveraging our team's wealth of experience and knowledge of traditional methods and incorporating those learnings into the use of emerging digital tools. We believe we are building new career paths for our people and, in doing so, preserving traditional craft and knowledge as well as engaging with the new. For instance, we're using AR technology to bypass the need to create onerous amounts of 2D drawings to communicate a 3D form/3D CAD model. Instead, our workshop team can clip a HoloLense onto a hard hat and look at an accurate holographic image of what they're building, tethered to the actual location on the shop floor where it will be created. This method provides the same detail as those archaic 2D drawings, but it's easier to read and interpret, and the efficiency gains for us have been remarkable.











Aerial view of XXX Times Square with Love







DesignedUp

And, of course, UAP has been using wireless VR systems to create walkable immersive spaces to showcase concepts to clients and artists. We have See. (Below and next page.)

Robot creating the model. Emily Floyd, 'Poll' 2017. Images courtesy of the artist and UAP | Urban Art Projects. Photography by Rachel



been able to reduce projects from eight days down to three, which also reduces cost. These tools are simplifying and enriching the way we work, letting people focus on their craft and the most rewarding parts of their work.

[Text continues on page 18]






Partner Ben Tait says a new world has unfolded at UAP. In the past, the design team would translate and communicate the artist's agenda to the manufacturing floor. Today, the new team are cross-reality designers, who program machines, working from a creative starting point.

On the workshop floor we are discovering that, for example, a welder does one thing whereas the robot is capable of a huge range of processes. That's how the new technology differs from its predecessors. Artists approach us with a wide range of creative drivers, and we can match them nicely with a human team in the middle.

And technologies such as VR and AR reduce waste, empower design and allow shorter delivery times. Ben continues:

This marks a different role for the designer, but the process that follows is the same. Like any tool, robots don't behave exactly as you imagine they will, and the whole team is involved in fine-tuning equipment, with these learnings then applied to the next project. What has been a surprise for UAP is that we are employing more people. In our world, robots mean more jobs rather than fewer.

Combining technology and art has enabled UAP not only to advance their processes and employ more people while also keeping its business in Australia. Founder Matt Tobin finds:

Ten years ago, we thought our workshop in Australia would be a prototype workshop and everything would be made in China. A decade on, we know that is entirely inaccurate. To be viable and competitive as a manufacturer, especially as a custom manufacturer, it's going to be cheaper to do it locally.





Worlds collide

With technology playing such a large part in our everyday lives, these advances have allowed us to turn perceived 'futuristic' ideas into reality and deliver them into the hands of everyday people. Tesla[®], AR, VR, Uber[®] and Lime[®] scooters have all changed the shape of how we act as humans. It's now OK to get into a stranger's car! And the resulting rise of the 'share economy' has created multibillion-dollar opportunities for businesses.

Mobile AR has been proven to result in more 'mindshare' and has enabled brands including Nestle® and Gucci® to create richer and more emotional experiences to communicate their brand with younger consumers. Danone® seized the opportunity to engage with younger consumers in Belarus and Russia by giving them a unique experience to learn English. They used AR to bring a series of 3D characters to life on magnets to teach kids English words—helping increase their sales of kids' yoghurts while filling a gap in education. Danone found that while there's no immediate way to convert interest to sales, it's said that two-thirds of customers' decisions are based on the quality of their experience with a brand or product.

The advances of AR and VR will undoubtedly see the rise of spatial communications in the future, but ensuring that these are great experiences for consumers can only be achieved through strong collaboration between design and technology.

The sudden shift of organisations adopting remote working due to COVID-19—and many liking the 'new normal'—has resulted in a surge in demand for software advances and better user experiences. Consumers' habits have changed, and their increased adoption of online purchasing quickly highlighted the gaps in technology within those companies that couldn't scale and adapt quickly enough to cope with the sudden surge in transactions. While many businesses have failed during this period, others have successfully taken the opportunity to develop technologies that meet the demands of this 'new' consumer and enable those in remote locations to continue working.

This expansion of technology across all touch-points can only be achieved effectively through the collaboration of design and technology. Design for design's sake doesn't work. For it to truly change an organisation, it has to be baked into the core, integrated across departments and included in every decision the product teams make. Design and tech need to sit side by side at the heart of the organisation, and designers need to be embedded into delivery teams.

The technology industry, giant financial services and management consultancies have started to recognise this, and it's one of the reasons we have seen such a huge growth in their acquiring design agencies to fast-track their design capability.

Brian Whipple, who was Global Managing Director of Accenture Interactive[®] at the time of the acquisition, said: 'In today's environment of digital disruption and heightened consumer expectations, the battle is for consumer engagement, and Accenture and Fjord[®] together will offer a deep blend of skills and expertise to help clients deliver innovative experiences that bridge marketing, commerce and service'.

Derrick Kiker, a McKinsey[®] partner who led the LUNAR acquisition, has similar sentiments about the power that design brings to an organisation: 'Until now, we couldn't help clients with design execution. Bringing together top design, engineering and business thinking in one holistic approach is going to be powerful'.

When Adaptive Path[®] was bought by financial services giant Capital One[®], its Design Director, Jamin Hegeman, transitioned to become the Head of Design, Financial Services, at Capital One. He saw the acquisition as being triggered by a desire to quickly build up the corporation's nascent design capability:

Increasingly, businesses are seeing the benefits of having design as a strong internal capability, and they're trying to bring it in-house. Acquisitions are a fast track to doing that; they're jump-starting a lack in that capability—whether it's a management consultancy who sees the benefit of having a design capability in their offering, or a large organisation that's been around awhile that wasn't built with a design capability at the start ... Integrating design into an organisation is no small feat. Adding service design, which most organisations are still grappling to understand, is an even greater challenge.

Acquisitions certainly enable companies to fast-track capability gaps, but what about those designers caught up in the process? They're no longer working for the company they initially joined. Shelley Evenson was part of the design and innovation consultancy Fjord acquisition and is now Managing Director, Accenture Song. She saw many positives in terms of what she could achieve, and her work has taken on a scale that was not possible before:

[The acquisition] gave Fjord a pretty incredible set of capabilities for thinking about implementation. Instead of just conceiving what things could be, it was about bringing them all the way through . . . What's interesting for me is that for most of my career, I've been really focused on thinking about how you integrate business, design and technology from the beginning. I feel like joining Accenture made that a huge possibility.

Unlike many other consultancies that have hit the headlines hard through acquiring design talent, Thoughtworks chose to take the longer and less public-facing approach. Why? Although it's often spoken about internally or during client pursuits, this is something that hasn't been documented . . . until now. Luckily, the Thoughtworks family tends to retain people over time, so I was able to extract the journey of design from Rebecca Parsons (Chief Technology Officer, Global), Ange Ferguson (Chief Transformation Officer, Global), Chad Wathington (Chief Strategy Officer, Global) and Kate Linton (Head of Design, Australia), all of whom have worked at Thoughtworks for between 10 and 20 years.

Back in 2003, Thoughtworks was a different company to what it is today. It was much smaller, with fewer than 1,000 people, and was therefore able to adapt quickly to change and the moving market. At the same time, it's always been a forward-looking company. They hired their first human–computer interaction (HCI) designer in the UK in 2003, and by 2006 they had designers in multiple countries. Rebecca says, 'We had to more broadly address the end-to-end process, and a design capability was crucial for that'. At the start, there were a number of local movements, with different regions seeing the need for design; then these movements began to accelerate and resonate more globally.

In 2009, they established the Thoughtworks University (TWU), a five-week intensive course undertaken by every new graduate, including designers. I asked Ange why they decided to grow their design capability:

The way we've grown our capabilities has always been in service of how we can create better outcomes for our clients. Bringing in project management capabilities in the mid-2000s was in response to making sure we could continue to create value in the more complex client situations, and the motivation for design was similar. We saw a path to create greater value for clients, and we took it.

In talking about the reason for choosing organic growth rather than acquisition, Ange reflected the same sentiment and echoed some of the observations made by Kate:

Organic capability growth has been central to our philosophy of talent development and expansion, driven in large part by a desire to ensure we maintain the culture of integration and collaboration in how we work, and we didn't see many design firms that took that approach.

Although growing organically is the longer path, it was the right decision for Thoughtworks, as Kate explains:

We had experienced the pain of working with other designers who did not follow agile design practices but preferred to do a big up-front design and specification ahead of writing any code, uninformed by any technical feasibility or user research. Our designers have learnt to work in agile teams and have rapidly adopted continuous design practices, which enables teams to be more responsive to new information and de-risk projects by not over-investing in design prior to understanding the business, customer and technical context.

This has been the slower path and one that doesn't get the huge headlines—one that can both attract and deter design talent.

Whether taking an organic approach or the acquisition route, when a company moves in a new direction, there is always going to be a process to get people on board, and Thoughtworks was no exception. There was initial resistance, as integrating designers into delivery teams with developers exposed them to agile processes, and there were some false starts with design leaders in different countries. The integration relied on both designers and developers recognising each other as 'Thoughtworkers' and breaking down the barriers of the 'us vs them' mentality. Ange reflects:

I think the designers had a tougher time than the pre-existing delivery role folks. At the time, integrating design with delivery was incredibly rare and was a big culture shock for those who were used to an agency approach. As with all new things, change is hard—it always will be. People gain confidence from successful experience, and it can be hard to ask people to step into an area that they have less confidence or experience in, whether it's how to sell, how to manage or how to execute.

While many have misunderstood what design thinking is or treated it as a tick box exercise, Thoughtworks used design thinking workshops to give people a basic understanding of the process. These added value by helping different capabilities recognise what design and delivery had in common and see that at the core it was creative problem solving—something they could all resonate with.

Overcoming resistance to new capabilities wasn't something new for Thoughtworks, which originated from pure agile technology roots. When business analysts, project managers and quality analysts were introduced over the years, they had the same

resistance but overcame it. Then, in the early 2000s, when this design change was happening inside the organisation, developers only needed to know two or three coding languages, and mobile development was in its early stages; therefore, many of the developers felt team members needed to be generalists.

When Ange first joined the company in 2006, she was working with teams and recalls that most teams welcomed the shift to having design embedded, as they had been frustrated when design had been done by someone else in a way that was disconnected to delivery—and often unrealistic.

As already mentioned, the other advantage Thoughtworks had at the time was their size, so they could take the 'lean experiment' approach, which the company does on a regular basis with clients. Rebecca said that the way they got design to work with agile delivery was through trial and error, working together to figure out how to make design iterative: what needs to be decided early and how things flow through the process.

Ange added: 'Our size at the time was an advantage—it made sharing foundational experiences relatively simple and accelerated the ability to build on each set of experiences. It could be a different story at our current size (over 10,000)'. Design is much more holistic a capability than many of us realised. Ange also reflects:

One insight was understanding the depth and breadth of roles within design. A common view when we began was that 'an XD is an XD is an XD', but through working with a Design is much more holistic a capability than many of us realised.

whole range of designers, we all began to understand there were visual designers, experience designers, service designers and researchers . . . the list goes on.

During my research, it was interesting to hear that many designers across organisations or within consultancies still face this same problem today: a lack of knowledge and understanding about the complexity of design and the fact that not all designers are the same and there are specialisms. Designers still regularly have to explain the difference to clients, sales, business development managers and even those within their delivery teams.

Some voices have been louder than others in putting a flag in the ground and saying, 'Design is here', using either acquisition or organic growth as a PR opportunity to announce, 'Hey, we're changing, and this is how we do design and solve problems better than anyone else'. Regardless of who is flying the flag, all the articles really advocate for design and help push the message to other organisations, and for that I will always be appreciative. Even if it's a competitor getting the press, I salute them because every article is helping to break down the myths about design.

However, there is always another side to the story, and while some have struggled with acquisitions, others have simply failed to adopt the practices they advocate for. An insider once told me that they had been working for one of the large consultancies that openly advocated for and really pushed their world-class design practice. When they eventually met some of the designers from this highly publicised team, it turned out to be a much smaller group than had been suggested, and rather than getting access to users to test their ideas, the designers had to simply test on each other.

Nevertheless, the smoke and mirrors seemed to work—short term. Luckily for the design leaders within the consultancy, things changed when the CEO started to take an interest, and the consultancy is now far better off. I guess that demonstrates that sometimes in business you just have to be bullish enough to sell an idea and people will come. Once the idea proves to be something customers want, the positive PR will attract the best talent, and eventually those inside the organisation will see that it's worth investing in and start to back it. But if an organisation doesn't have the right leadership and backing for design, it's going to be a hard slog for any design leader.

Whether a business takes the pure organic approach, the acquisition approach or a blend of the two, all routes come with their challenges and rewards, which designers need to navigate in order to lead and change how design operates within an organisation. Ultimately, the successful integration of the design function eventually leads to designers' being able to scale, and—most important—the end experience for the user is enhanced, human-centred and delivers great products. The understanding of design will spread out across the many organisations that make up the client bases of these large consultancies—an audience that once would have been out of reach of the design world. However, no organisation is perfect, and it can still be a frustrating process. What might be portrayed by self-promotion and through the media as glorious and smooth isn't always an accurate reflection of what's really going on under the hood!

The joining of these worlds has meant that not only have we all had to figure out new ways to work together, but consultancies have had to go on a journey to figure out how to sell their new approach to clients and show them best practice on how to integrate design successfully themselves. While organisations look to consultancies to help them with their journey, many don't even know they need a collaborative process—they still think they just have a technology problem or that a simple 'beautifying of the UI' will solve everything.

This is one of the many common challenges designers find in technology consultancies and companies, and they have to go from a designer to a DesignedUp leader in order to fundamentally change how organisations operate and see design. They need to first convince their client that it's a combined design and technology problem and then show a future vision of what their business and products could be like if they recognised it as such and were prepared to take action.

This is the journey you need to be ready to take your clients on.

It's not like these two worlds are so different. Both designers and developers are used to experimenting, testing to see what works, then iterating. The challenges are around getting the worlds to acknowledge that they're stronger together and working out the best way of designing and building at the same time.

For consultancies, the challenges are threefold: how to get design to work with their technology model, how to shift clients to a new way of thinking and how to get organisations to incorporate design at the centre of their business. There is then the shift the consultancy needs to take itself to ensure it is now building with a human-centred mindset—not everyone is a designer, but we all have the ability and responsibility to be user centred. So how do they sell the full end-to-end to clients? What story are they telling, and how can they ensure they can deliver great results across the entire journey to ensure continuity and best outcomes for clients and customers?

Design is not style. It's not about giving shape to the shell and not giving a damn about the guts. Good design is a renaissance attitude that combines technology, cognitive science, human need and beauty to produce something that the world didn't know it was missing.

Paola Antonelli, Senior Curator of the Museum of Modern Art

Designing in the new landscape

In the past, designers simply worked in design agencies. They didn't need to constantly justify the reason for design in-house because the agencies lived and breathed design, and that's what clients bought. They still needed to justify their costs and the value they were bringing, then pitch their ideas to clients; but that's the same in every business. However, many designers now, whether through choice or as a result of acquisition, find themselves in this new world in which they constantly have to justify themselves and what they do, both internally and externally.

Today's designers have to find ways to bring technology delivery teams along on the journey to understand design. They have to figure out how best to collaborate with agile teams and show badly functioning teams how to function better. They need to find ways to break down the barriers inside organisations to make them more customer centric and understand the value of design.

Some people—especially in government, procurement teams or other delivery teams—view design as a luxury and don't understand its value through the entire delivery process; yet ironically, many of these people will be regular users of Airbnb[®], Uber[®] and other design-critical apps. For a designer working in a consultancy, this challenge raises its head with every new RFP, project and client. On top of this, they also need to navigate the world of consulting, especially if they've been acquired by a consultancy.

And then there's the work itself. Designers working in this world have to be fundamentally good at design and solving problems because that's what they're being paid to do. (Are you getting a picture of several plates spinning?) With so much going on, how can a designer lead effectively and not become bogged down with the complexities or overwhelmed with the sheer amount of stakeholder management and team uplift on top of the design work that's required of them? It is a real challenge —but one that can be overcome, I promise!

Bringing my vision to life

It's one thing to inspire and lead a client. However, influencing within the consultancy you work for is quite another.

I had just returned from five months' maternity leave after having my first child and was ready to get stuck in. I had a vision to create the first-ever design conference for Thoughtworks which would enable us to showcase our knowledge and expertise and demonstrate how we combine design and technology to create great experiences for customers and achieve amazing results for clients. I also wanted people to get a feel for how we work and position the Brisbane office at the front of potential clients' minds. To get the initiative off the ground, I had to create a compelling reason and business plan, then present to finance and marketing to get their buy-in and secure funding. This involved managing many expectations, communicating with stakeholders and finding advocates across the organisation to support me. I needed to inspire people to join my cause and volunteer to help out, which meant I had to be clear with my vision from the outset. I then needed to manage the budget and really get people behind the vision.

Thoughtworks runs regular meet-ups across the different regions, which are free, with food and drinks provided—something many other design and technology organisations do. However, a meet-up is different to the type of event I envisioned, and because they're free, there is a huge drop-off rate. I didn't want my event to be just another freebie that could devalue our brand—I wanted people to value what we had to offer—so I created the first paid event in the history of Thoughtworks Australia. A year later, and after a lot of stakeholder management and planning, the first CXD (Customer Experience Design) conference was born in Thoughtworks. I referred to it as my second baby.

The event comprised:

- An executive lunch for attendees from the largest enterprises in Brisbane, with a keynote speaker from Thoughtworks
- A one-day conference with keynote speaker Rowan Lamont, Designworks Brisbane, who designed and manufactured the GC2018 Queen's Baton for the Commonwealth Games
- Interactive workshops, talks and a global panel discussion, bringing our design leaders from across the globe via Zoom[®] into the conference room to discuss and debate design and share their views and opinions on how to create differentiated customer experiences

Highlights:

- The first time pairing with one of the local businesses, Designworks
- The first time hosting a Thoughtworks design-focused conference
- Several follow-up meetings with prospective clients after the event, which enabled us to get some prospective clients over the line

Feedback from the event:

'I appreciated the hands-on workshop and international panel providing different perspectives'.

'I liked the mix of theory and how it has been applied practically in companies'.

'It was great to meet people in the industry in Brisbane and realise that we're all struggling with similar problems'.

As a design leadership step ...

Throughout the process, everyone was supportive. The General Manager for Brisbane at the time, along with our Head of Design, critiqued my initial presentation and gave advice on where it could be improved before presenting it to our Head of Operations and Head of Marketing.

Thoughtworks had never conducted an event like this before, and I wasn't sure if marketing would be on board, but not only did they agree to support the event, they also gave me a great budget to work with and a dedicated person from their team to help. Fiona Byarugaba worked with me throughout to organise and plan the event—she was my rock and partner in crime throughout the whole process. I couldn't have done it without her and everyone else who helped make it a success.

My peers were excited and everyone got involved—developers, quality analysts, business analysts and, of course, the designers; we all came together to ensure the event was a success. The vibe in the office was unbelievable. We had a planning wall and daily standups; the website user journey was mapped on the wall and we had a small team on the beach working on its execution, with me as the product owner. From fixing technical problems and welcoming people to the event, to helping clean up, the incredible team effort ensured everyone had a fantastic time and we provided a great customer experience.

In terms of my career, I think it helped more people see my energy and what I could achieve, and I think it really helped other disciplines understand design. Karen Dumville, Global Head of Marketing Operations, Thoughtworks, shared this:

In 2017, Emma came to me as Head of Marketing for Thoughtworks Australia (at that time), with an idea for a Customer Experience–focused event that would engage and educate the CX community in Brisbane. She had a clear vision for the format, content and execution and was passionate enough to persist in advocating for the event until she had company leadership support to go ahead. The vision became a reality and culminated in a full-day multi-stream event with 78 attendees across the conference and executive lunch. I congratulate Emma for her vision, passion and persistence in making the event a reality.

And Kate Linton, Head of Design, Thoughtworks, had these thoughts:

Vision alone is never enough to really drive change. Project management skills, team leadership, delegation, negotiation and an eye for detail were all skills that Emma brought to this event to ensure success. Following CXD, Emma has gone on to advance her career and personal brand, both internally and externally, and is now a Principal at Thoughtworks and one of our key design luminaries.

Leaders formulate a vision of what great design can be for the organisation they are working with. I try to take my clients on a journey to show them what their product

could be and get them excited about the vision. That initial momentum enables me to build a following and spread the love of design. Leaders also need to have followers throughout the organisation—it's crucial for design to succeed and for a customercentric approach to technology to be truly embedded. As a consultant, you need to build a new tribe and find advocates for design with every new client. (I'll talk more about how to build your followers in Chapter 6.)

Design leadership and design management —What does it even mean?

If we look at managers in the traditional sense, their main focus is on building a team, managing that team and making sure they're effective at their jobs. They tend to have deeper structures with more formality and check-ins, and they protect their team from distractions that might come from other parts of the organisation, giving them the space to do their best work. Significantly, they are usually promoted into the position via a corporate 'career path', rather than emerging as naturally good leaders. This results in managers who might be loved or despised, with many simply viewed as 'okay'.

Leaders have to earn, rather than demand, respect and support from their peers. This relies on their being able to lean on the strong relationships and tribe they have built, using reasoned persuasion and a strong vision to make things happen. Effective leaders rely on their followers to help them achieve their vision—it's a team effort.

The role of the leader can be challenging and sometimes exhausting, always having to use persuasion and constantly justifying the reason for doing something. But having a team of people who are 'willing' rather than 'having' to help results in better outcomes, because when people feel they're part of a truly collaborative journey, they tend to put in much more effort and bring more ideas to the table. A design leader in a consultancy has to do this not only within the business, but also with every client. While that can take a lot of energy and effort, it's all a part of being a good design consultant, and the rewards can be tremendous.

While in conversation with Mike Mason (Global Head of Technology, Thoughtworks) about leadership, I was curious to find out what he thought made a good tech leader and if there were similarities with design leaders. 'One thing they do well is being able to bridge the roles', he said. 'Tech is specific with a lot of depth, like design, so you have to be able to communicate well with people who are not in your area'. I asked him specifically what he thought about one of our well-respected designers, Kate Linton, as a leader.

'A key factor in her success is that she is accomplished as a designer in her own right. This credibility helps her in her leadership role—having done the job you are meant to lead'.

In some ways, leadership is more fluid and not a job description. You can have a group of people working on stuff, and someone naturally falls into the role of leader ... Management and leadership is not everyone's strength.

Mike Mason, Global Head of Technology, Thoughtworks

To make the transition from designer to a DesignedUp leader in a consultancy, you need to be able to do the design work while leading and managing the clients' expectations. Depending on the consultancy, you may also have to manage a cross-functional team. Clients will expect you to lead them in the new direction, which will require building a transparent and trusting relationship with your stakeholders, the tribe you have built and across the client's organisation. They will expect you to be able to design and most certainly will expect you to 'own the Sharpie' by stepping up and leading teams and discussions. This expectation that you will lead the client is simply part of being a consultant.

You won't be managing teams of designers or signing off designs; instead, you will be working collaboratively with your diverse team—which may or may not include other designers—leading them in the right direction and up-skilling team members on the value of being customer centric. Depending on the consultancy structure, you might not be directly responsible for other designers' performance reviews as a manager would be; however, you may be a coach for some designers, helping plan their goals for the year, giving advice and working with them on certain projects. Even with those around you who you're not specifically coaching, you will need to give guidance and advice on best practices. You're the guide, showing the team the way with design.

Once you are in a design leadership position within a consultancy, you will be involved in selling design to new clients, which, in turn, will help grow the design team. Leadership requires you to own and drive your own direction and set standards, and the consulting world lends itself to allowing people the room and flexibility (within reason) to do that.

After interviewing leaders across six of the largest global consulting firms, including the Big 4, I found that while they all share the same sentiment and opportunities, their paths to get there often differ, with some providing more support for design growth than others.

Now, if you're ready to step up within your organisation, or if you're already leading in some capacity but want to build your skills and learn more about how you can work and lead more effectively in this new world, read on!





ust as great experiences can only be achieved through cross-functional teams, insights from customers, testing and learning, being inspired and sometimes being bold enough to take the path untrodden, is also true for writing and designing a book.

This book was created not through happenstance, but through wanting to solve a problem and help fellow designers trying to navigate the world of tech and consulting, those who want to be brave, make a difference, articulate the value they create, bring others into our world of design, make experiences of tomorrow better than they are today and avoid having their hard work de-prioritised because it is not understood.

This book wouldn't be the book it is without the help of my trusted editors Susan Culligan and Sarah Walker: thank you for making my words and ideas make sense. Susan, you allowed me to design a book I could be proud of and put my design stamp all over; I must have driven you crazy on a number of occasions with all my tweaks, but we worked as a team, bouncing ideas back

Adam Cellary Founder and CEO RealEye® Adam Hope Principal Experience Designer, Thoughtworks®

Andreas Markdalen Global Chief Creative Officer at frog®

Ange Ferguson Chief Transformation Officer, Thoughtworks

Dr Andy Polaine Ex Global Group Design Director of Client Evolution at Fjord®

Brian Henesey Forrester

Bronwyn Shimmin-Clarke Principal Product Manager, Thoughtworks

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Cassandra Kelsall Director of Experience at Publicis Sapient

Catriona Burgess Head of Frost Place, part of Frost*collective

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Karen Dumville Global Head of Marketing Operations, Thoughtworks

Kate Linton Head of Design, Thoughtworks Kathleen Casford Founder of By Ninja

Kavitha Thyagarajan Lead Designer, Thoughtworks

and forth across the globe. Sarah, thanks for having my back and coming to the rescue on a number of occasions.

Of course there is also my long-suffering husband, who has again been by my side as I embarked on another book. This time was much harder with two young children, careers and businesses to manage, but as always we found a way to get it to work.

But the team that made this possible is much larger than those mentioned above. And while I originally planned to write you all a personal note of thanks, I have unfortunately run out of my page allowance; however, I have just enough space to include all your names. Thank you team for your valued consult and support—without you this book would not have been possible:

- All the clients I have ever worked with apart from the not-to-be-named 1%-ers.
- All those who cannot be mentioned—your input was invaluable.
- And for any that I may have missed, it's not intentional—I've just spoken to so many wonderful humans during the creation of this book.

Kevin Yeung Head of Data Platform at 3P Learning

Kit Rion Citation Specialist, Forrester Kristan Vingrys Managing Director, APAC, Thoughtworks

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Liz Gilleran Senior Experience Designer, Thoughtworks

Luciana Albuquerque Gissing Creative Director, Experience Design at Deloitte[®] Digital in LA.

Maria Gomez Director of Engineering at BCG Digital Ventures®, Berlin

Mariel Maciá Senior Service Design Manager, McKinsey & Company®

Mark Carter Long-suffering husband

Mark Collin Head of Retail, Europe, Thoughtworks

Mark Togher Head of Professional Services, Australia, Thoughtworks

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Matthew Johnston Head of Disability Inclusion, Thoughtworks

Matthew Haynes Founder, The Design Conference, Brisbane, Australia

Matthew Tobin Founder & Managing Director, UAP

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Tony Smith Client Engagement Partner, Fujitsu®

Tiago Duate Engagement Manager, Amazon Web Services®

Are you struggling to get non-designers to understand the value of what you do?

Tech companies and consultancies can feel like an inhospitable landscape for designers. Too often, design is seen as a 'nice extra', rather than an integral part of the process, and designers find their voices overshadowed by decision-makers who don't understand or appreciate the power of design.

77 Carter's new book, DesignedUp, is a useful guide for the modern design practitioner who sits at the intersection of the IT consultancy and agency world - someone who chooses to plot their own course across many companies' diverse set of interests instead of being loyal to just one. In doing so, they have selected an exciting path that will bring them many heralded victories and challenging pitfalls, which Carter has aptly navigated over her impressive career. If you have been in the field for a while, I think you will find Carter's book to be a refreshing antidote to any career doldrums you may have.

> **Dr. John Maeda** VP of Design and Artificial Intelligence Microsoft

Computer Design, Graphics & Media



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CRC Press titles are available as eBook editions in a range of digital formats

This book will help you eliminate obstacles and become a **DesignedUp** leader who can effectively influence everyone from engineers to C-level execs.

By sharing perspectives, methods, frameworks and hero stories from global Tech & Design leaders—including Rebecca Parsons, CTO at Thoughtworks; Andreas Markdalen, Global Chief Creative Officer at frog; Lauren Pleydell-Pearce, Executive Creative Director at PwC UK, Dr Andy Polaine, Ex-global Group Design Director at Fjord—Emma Carter shows you how to:

- Assess and harness your strengths
- Understand and communicate in the language of business and tech
- Develop your influencing skills to bring tech leads and stakeholders on board with design
- Present compelling design arguments that resonate with decision-makers
- Turn execs into design evangelists
- Spread the love for human-centred design far beyond your delivery

Designers have long asked for a 'seat at the table.' What Emma Carter has done is given them the roadmap to not only get that seat, but to redesign the table to fit what tech-driven organisations need to

succeed today.



Jeff Gothelf Author Lean UX and Sense & Respond

