JUSTINMINDENTERPRISE

MAKING AN ENTERPRISE UX FRIENDLY

A Quick Guide

Written by Cassandra Naji & Emily Grace Adiseshiah from Justinmind, the enterprise software prototyping tool

If you're working in digital design today, it's a safe bet you've heard of enterprise UX. But definitions get thrown around carelessly. Are you sure you could pick enterprise UX out in a line-up of UX trends?

After reading this book, you'll be able to:

- **Combine user needs and business goals to build a solid UX strategy**
- **Strengthen the UX acumen of your team, or build a UX team from scratch**
- **Create enterprise software that meets both user and client needs**
- **Make the business case for enterprise UX.**

Improving the UX of both an enterprise's software and the enterprise itself requires consideration of the needs of product users, business goals and organizational priorities. The payoffs for carrying out a UX refresh can be measured in terms of profit, productivity and people, as we'll outline.

In the book we'll provide practical guidance on the how and why of making your enterprise UX friendly. You'll find real-world examples, plus expert interviews. There are also helpful Chapter Summary box-outs at the end of each section, and visuals to help you visualize your UX upgrade.

The idea is that, with just a little eBook-learning, you can start to build user experience into an enterprise from the ground up, whether in internal- or external-facing software, team knowledge base or organization strategy. We hope you'll find practical advice and insider tips from industry leaders - including our own team experts here at Justinmind - best practices and inspiration.

> *"A successful enterprise UX project considers the users' needs, the clients' goals, and the organization's priorities. The best user experience sits at the intersection of these concerns."*
> *Jordan Koschei, Lead Product Designer at Agrilyst*

01

WHY ALL ENTERPRISES NEED TO BE UX FRIENDLY

02

03

04

Enterprise UX. Two words that can strike fear into designers, UXers, business developers and project leaders alike. Why? Because enterprise UX is difficult. Large organizations, whether national or international, have their own momentum and a change of direction can take months to implement; years of layered complexity clog up software used in-house; management see the user as pretty far down the pecking order, below profits, clients and shareholders.

But all this doesn't detract from one simple truth. User experience is vital to enterprises today. Difficult but vital. Big players across the board are recognizing that users now demand well-designed products, and UX is an integral part in delivering those products.

It hasn't always been like this. Historically, enterprise software has been pretty clunky. Many of you probably have anecdotes about troubles with Lotus Notes or Microsoft Office. And there are plenty of corporate horror stories about malfunctioning enterprise software too: SAP's near-miss take-down of Hershey's back in 1999, which led to an 8% fall over Halloween season; or HP's centralization of its ERP systems, which cost a cool $160 million in backlogs and lost revenue.

The challenges to making large organizations enterprise friendly are not hard to see, but certainly can be hard to solve. Implementing new enterprise software affects people, processes and organization culture – there's a lot at stake when you roll out an enterprise software. And those roll-outs can be costly and unpredictable. And they might not have the desired outcome anyway (increasing profits and efficiency) because of the complexity of the information they need to encompass. In big businesses, the focus has been on **1) getting all the information into the software**, and **2) maintaining profits.** The user comes a distant last place in this shakedown.

So why are enterprises increasingly turning a spotlight on good UX – be it in the software they produce, use internally, or in their own digital outputs and internal culture? Let's break down the 3 Ps of enterprise UX: profits, people, productivity

PROFITS

This is where the rubber meets the road: providing customers and employees with products that generate good user experiences adds value to one of the world's biggest business sectors – information technology. Over 1 trillion USD is spent annually on IT (according to IEEE's Why Software Fails), with the US government spending $60 billion on civilian IT initiatives, and $16 billion on military IT alone.

But out of the all these IT projects, up to 15% will be abandoned before completion. IEEE cited 12 main reasons for those failures, and 3 of those 12 are directly related to UX issues: badly defined requirements; poor communication among customers, developers and users; and stakeholder politics.

Even if IT projects don't fail outright, bad UX still impacts revenues. According to behavioral scientist Dr Susan Weinschenk, failure to consider UX in a product or project strategy can have some eye-watering consequences: **programmers spend 50% of their time on avoidable rework, the cost of fixing errors after development can be 100x more than before development, and factors such as internal training in unintuitive software all raise costs.**

Let's take a look at some concrete cases. The first is Apple vs Samsung. In 2011, Apple started litigating against Samsung for patent infringements; ostensibly, this was all about Samsung copying Apple designs, but in essence it boiled down to Apple having UX so good that Samsung couldn't help but borrow from it, in the words of UX guru Jared Spool. Presenting two key pieces of evidence – a timeline of Samsung products prior to and following the Apple launch, and a UX document created by Samsung's Galaxy QA team documenting all the tweaks they wanted to make to their product – 130 of the 132 changes just happened to make the Galaxy more like the iPhone. Eventually, the court awarded Apple 1 billion dollars. A pretty good argument for having the best UX.

But ROI can be measured in more direct ways too. Take Walmart's redesign of their ecommerce site, which resulted in a 214% increase in visitors. Or Bank of America, which increased online banking registration by 45% after a UX redesign of the process. UX-centered software and digital platforms have a tangible, measureable impact on ROI. According to D3 Infragistics, general estimates of the value of investment in user experience vary from a return of $2 to $100 for every $1 invested in user experience design.

Using metrics such as conversion rate, drop-off rates, increased software usage, reduction in internal trainings, an enterprise can calculate the potential ROI of UX improvements. In her whitepaper, Dr Weinschenk provides three useful formulae to calculate UX related cost savings:

> **Errors**
> (#of errors) x (avg. repair time) x (employee cost) x (# of employees) = cost savings
>
> *Example: (2 errors/week) x (60 mins) x ($30/hour) x (100 employees) = $6,0000/week or $300,000/year*
>
> **Cost of Development and Maintenance**
> (#of changes) x (avg. hrs/change) x (cost of developer) x (4, if late)
> = cost savings
>
> *Example: (20 changes) x (8 hrs each) x ($40/hour) = $6,400 if fixed early or $25,600 if changed late*
>
> **Productivity**
> (time saved) x (employee cost) x (#of employees) = cost savings
>
> *Example: (1 hr/week) x ($30/hr) x (1000 employees) = $30,000/ week or $15,000,000/year*

Forrester revealed that 'implementing a focus on customers' experience increases their willingness to pay by **14.4 %,** reduces their reluctance to switch brands by **15.8 %**, and boosts their likelihood to recommend your product by **16.6 %**'.

PEOPLE

As digital native start-ups begin to eat into traditional enterprises' market share, established players are forced to compete not just in terms of pure tech, but also in terms of holistic product experiences. People everywhere now use apps and websites with world-class UX every day of their lives, and any enterprise software that doesn't meet this standard is going to look and feel prehistoric. Users are shaping business strategy more than they ever have, says Forrester.

First, enterprise employees. These are the guys who've traditionally had to suffer crummy software 9-5, Monday to Friday. Why? In addition to the difficulties of UX-ing complex enterprise systems, in large enterprises the customer was traditionally not the user – a C-level exec decided on an ERP software based on price over usability. If the software was sub-par, employees simply found work-arounds, or worked more inefficiently.

But that's changing. Thanks in part to the start-up boom and to the growth in software competition, teams are choosing their own ERP products, and switching more often if the experience isn't up to expectations. Take the example of Slack, which managed to eat up territory traditionally given over to enterprise project management software just because it is more user friendly and easier to integrate into the team workflow. **The implications for software development teams? It's not the sales pitch to the purchasing department that matters anymore, but the experience of the end-user.**

As far as customer experiences go, when customers jump onto an enterprise product, be it an ecommerce site, a cloud-powered ERP or an app, they expect to be painlessly onboarded, to be able to customize their experience without calling in the IT guys, and to figure out the platform intuitively.

PRODUCTIVITY

There's no better way to stymie employee productivity than with crappy software; anyone who has seen colleagues organizing tasks on post-it notes then transferring them to a bad task-management program will testify to that. It's estimated that hard-to-use technology is linked directly to lower productivity, bad customer service, absenteeism and higher turnover. Well-designed software can streamline communication and vital processes such as purchasing, but badly designed software can strangle a company.

Let's look at an example of the impact of bad UX on productivity. In 2013 Avon Products junked a $125 million dollar software overhaul after discovering that the product was so cumbersome that salespeople actually left their jobs rather than work with it.

On the other hand, Oracle demonstrates the power of good UX in enterprise software: by improving its database application the company thereby allowed administrators to do their job 20% faster. In large organizations, these incremental improvements in productivity add up to millions.

Automated usability testing means enterprises can do more pre-launch research faster and with less spend than previously possible. For example, prototyping an enterprise software and running tests before coding allows software developers to iterate and rebuild faster than ever, dismissing designs that would hamper productivity.

> *If software isn't good for people, it isn't good for business.*

THE TAKEAWAY

Building UX into the software development life cycle and into the fabric of an enterprise positively impacts on profit, people and productivity. Enterprise strategies are no longer focused solely on functional requirements, and now incorporate the end user. Enterprises that don't have a UX strategy and process up and running will want to start on the next step – building an in-house UX team, covered in the next chapter.

SUMMARY

1 UX is vital to enterprises today
2 Creating products with good UX adds business value
3 Mismanaged UX contributes to 25% of failed software development projects
4 For every $1 invested in UX design, there's a return of between $2 - $100
5 If software isn't good for users, it isn't good for business

01

02 BUILDING A UX TEAM IN AN ENTERPRISE

03

04

> *"The first step to getting a good product is nothing to do with the product itself - it is to do with the organizational structure of your company and the product team." Don Norman*

Building a UX team in an enterprise requires you to build a culture of UX throughout the company - **"User nirvana"**, as UserTesting Marketing Content Writer Jennifer Winter has it. You need to involve the entire organization in the core principles of UX and create an environment in which UX can flourish. It may require a shift in direction of your processes and/or business infrastructure.

So how do you create a great UX foundation in your enterprise? We've broken out the 5 main steps you'll have to take when building a strong, sustainable UX team.

1. PROMOTE CORE UX DISCIPLINES ACROSS THE BOARD

As we saw in Chapter 1, **UX cannot be separated from the rest of the company: it is a cross-team effort.** The first step to building an Enterprise UX team is to ensure that the core disciplines of UX are encouraged and in place throughout all areas of your organization. Here are a few ways in which you can evangelize UX across the entire organization:

- Make sure that everyone is on the same page by promoting an open house environment with a communication campaign directed at UX learning. For example, internal workshops can be a great way to educate non-UXers about the core disciplines. Build upon what's been said in the workshops and introduce this into small projects so that everyone gets a feel for UX in the context of their department.

- Try to collaborate with small groups so that they can see how UX intends to help by small examples. In order to create a communal creative process within an enterprise, everyone needs to be aware of the role that user experience is going play in their day to day, as well as long term. By explaining the measurable and tangible aspects of UX in small focus groups, departments that don't typically deal with UX will gain insights into its full reach.

- Documenting processes can help stakeholders understand in-house UX strategy. Create a foundation document for UX strategy that explains UX in relation to business strategy, competitive benchmarking and ROIs. Chapter 3 will explain how to do this.

2. KNOW YOUR TEAM

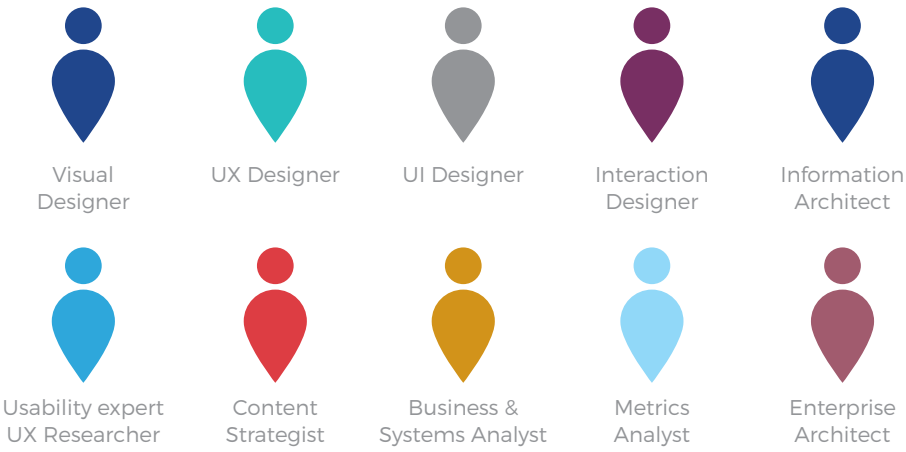
Shifting your enterprise business model in line with UX starts with the individuals. A company is nothing without its employees, who will be the ones required to make the shift towards a UX-centered working environment. So yes, know your users, but equally, know your team.

In order to promote a UX-friendly culture, specific roles must be filled, but it's important to remember that any change to a company's structure can't happen overnight. The process of augmenting your team should be an evolution, not a hiring and firing free-for-all. What's more, before you think about hiring additional players, consider the talent and skills already available in-house. Assess the situation: do you have UX potential in your existing team? Skills can be cultivated and different hats worn, indicating different responsibilities. Different individuals have different strengths: some will share particular skills, but each will have their own area of proficiency. Wearing more than one hat is fine, and should actually be encouraged. In fact, wearing different hats often works to the project's advantage: speeding up the

integration of UX practices and ultimately making the team more efficient.

Large enterprises with a mission to foster UX are following this tactic of role diversification, including IBM, which requires new hires to specialize in multiple areas, such as front end development, user experience design, visual design and design research. One hire, several hats, a more holistic UX culture.

The UX roles that you introduce into your organization will greatly depend on the nature of the organization. Nevertheless, there are some roles that most teams will benefit from during and after the transition to an enterprise UX culture. These include:



Visual Designer: similar to a Graphic Designer, the Visual Designer focuses on the big picture - the concept of graphics, typography, iconography and the color schemes. Visual Designers attend to the aesthetics and rarely enter into the technical.

UX Designer: deals with how the user is going to interact with the product. The main responsibility of the UX Designer is to ensure that the product has a logical flow so that the user can move from step to step without getting lost.

UI Designer: concerned with the form and distribution of graphic elements in an interface. Whilst the UX Designer makes a design usable, the UI Designer makes it pleasant to use.

Interaction Designer: must understand how a user interacts with an app and build up interaction and animation into the design so that it reacts to the user's touch/ instruction.

Information Architect: organizes the design elements so that they make sense. The Information Architect deals with the structure of a website, app or any other interactive product.

Usability Expert/UX Researcher: deals with the user's needs. The aim of the research is to answer two questions: who are our users? And: what do our users want and need? This profile usually conducts interviews with users and does research about market data.

Content Strategist: achieves business goals by maximizing the commercial impact of content.

Business & Systems Analyst: determines operational objectives by studying business functions; gathering information; evaluating output requirements and formats.

Metrics Analyst: compiles and analyzes financial and operational information for an organization as it relates to human resources practices. May be responsible for analyzing costs and effectiveness of staffing practices, training programs, and employee populations.

Enterprise Architect: works with stakeholders, both leadership and subject matter experts, to build a holistic view of the organization's strategy, processes, information, and information technology assets. The role of the enterprise architect is to take this knowledge and ensure that the business and IT are in alignment.

The specific roles required depend upon the breadth of services that your UX team provides. For example, if you offer a comprehensive range of design services, the roles you require are going to be substantial. Your team will almost definitely include visual

and interaction designers as well as usability professionals. Whatever the team, you're going to need individuals who can translate wireframes into user-friendly, brand-boosting software.

3. WHERE THE TEAM FITS INTO THE ORGANIZATION

Understanding where your team is going to fit within your organization is easy: everywhere. Everywhere and nowhere. Whilst UX is the all about you getting closer to the user, it is still a new concept to large organizations and making it work alongside more established processes will most likely require some work. Founding Principal at Perfetti Media Christine Perfetti counsels that an organizational analysis will help you understand the most effective way to set up the team: "Once UX teams understand the organization's goals, they can tie their first activities to those goals and get some quick wins."

Cross-team visibility

High visibility within the team is as important as global transparency within the organization. Visibility and team performance go hand in hand. Transparency between team manager and team members can help to promote an efficient workflow. Try to organize tasks so that everyone knows the status of each project in order to avoid misunderstandings down the road. Timelines are priceless.

For example, teams that follow the Agile Project Management method work on a predefined number of tasks, and rarely add to their task load within a sprint. This allows them to accurately forecast how long a sprint will take and when their work should be ready for delivery. They use an end-to-end agile planning software such as Jira to ensure that everyone's tasks are clear and accurately assigned, as well as to help evaluate their progress in post-sprint clean up meetings.

Getting everyone on the same page will also make it easier to make accurate forecasts about whether a project's turnaround time is realistic and whether the client needs to be informed of possible delays.

Individual and team successes should not be kept a secret. As your team grows, the rest of the organization is aware of their progress. Communication is key to establishing any team. Sharing in each other's successes as well as challenges will help to integrate the team into the fabric of the enterprise. Weekly newsletters or e bulletins are both great ways to hyphen everyone in the know, and keep them as friendly as you need.

4. ESTABLISH WORKFLOW, GOALS AND GROWTH

Whether you're hiring or growing talent from within your team, or both, it is vital to incorporate processes, tools, and programs to support everyone involved. Here are a few ideas to consider:

- When onboarding new hires, aim for relational onboarding instead of transactional onboarding. Transactional onboarding refers to the traditional orientation of new hires: getting them set up with equipment and resources, training them on internal processes etc., and typically relates to immediate and short term employee needs. In contrast, relational onboarding refers to the quality of relationships with current organizational employees. Apps like SelectMinds pre-configure a new hire's corporate social network of colleagues that will be integral to their immediate success, orienting them within the team.

- Organize brainstorming meetings to stimulate creative thinking. Across the board, you should encourage listening, communication, teamwork and collaboration.

Brainstorming sessions are a great way to animate less outspoken team members and stimulate conversation and discussion. This could also be an opportunity to encourage the use of shared vocabulary to get everyone on the same page - seasoned employees and new hires alike.

- Hold team days and informal evening and weekend sessions to interact with employees in a more relaxed set up and encourage cross-hierarchical participation. Refer to such events in future projects, presentations and meetings to build team relationships. For example, IBM holds three-month IBM Design bootcamps for new hires, 2-day boot camps for IBM executives, and week-long sessions to establish the right tools and techniques for product and project multi-disciplinary teams.

- Encourage teamwork and feedback loops by using chat and messenger desktop apps, such as Slack and Google Hangouts, shared Google calendars and virtual project management tools such as Trello, which promote effective teamwork. A team that communicates will be able to avoid misunderstandings and identify warning signs.

> *"Growing a good team requires both tactical and strategic actions that take place over time, for a specific purpose." Jeff Gothelf*

- SWOT analyses to evaluate the internal and external strengths, weaknesses, opportunities and threats of and to your project in relation to the team's performance.

- Individual progress reviews, depending on the organization, typically take place once or twice a year and focus on the overall performance of each employee. Managers can give the employee feedback about their respective successes and challenges, and the employee give their insights into their progress.

- Post-sprint meetings in the Agile Project Management structure are a good way of assessing each task. Depending on the project, some tasks will be repeated in future sprints and by evaluating them on a regular basis, you can promote continual learning.

- The Agile Retrospective is at the heart of Scrum. Team members are encouraged to discuss the ins and outs of their working environment, as well as their work in the project or sprint.

Once you have understood the team's learning gaps, you can begin to translate the gaps into creating learning spots and coaching and performance improvement plans. **A team that is continuously learning together is a strong team.** Never underestimate the power of a well-balanced team, able to work together and bounce ideas off each other.

> *"Organizations that learn to bridge the communication gaps between strategic thinking in design and in business will find themselves in a better position to meet customers' needs and expectations." Andy Fitzgerald, Deloitte's Associate Creative Director.*

Creating frameworks, toolkits, and programs that will support the enterprise ecosystem can be the difference between a fragmented set of individuals brushing up against each other and a unified team.

5: TEST YOUR PROCESS

Once you have your UX process in place, test it out! The only way to be sure that your process works is to test it, continuously.

Group-level usability testing within your UX team can be a great way of setting goals and selecting methodology. If you're looking for an example, take that of Oracle: in 2005, embarking on a project to design and build their next-gen enterprise application suite, the cloud tech corporation made usability the central tenet of the product, and accordingly integrated usability tests into the beginning stages of the design-development process. In foregrounding usability and testing it continuously, Oracle learned more about their internal audience and, ultimately, wove integrated workflows into the fabric of the company.

THE TAKEAWAY

Building a UX team in an enterprise requires implementing UX in all areas of the organization. There is no one-size-fits-all way of building a UX team in enterprise, everything depends on your processes and the in-house skills that can be leveraged. Analyze your organizational model and the strengths and weaknesses of your current team so that you can start pairing skills and recruiting what's missing from the set. Remember that cultivating a team that embraces UX is a constant journey. UX will grow as your team does.

SUMMARY

1 Building a UX team in an enterprise requires a culture of UX throughout the company
2 Know your users, and know your team
3 Leverage the team's existing UX potential, evaluate their strengths and weaknesses
4 Practise role diversification
5 Transparency is a prerequisite for buy-in on enterprise UX projects

01

02

03 WRITING AN ENTERPRISE UX STRATEGY

04

Strategy. The very word implies decision, direction and goals. But is it really like that? Does having a UX strategy inevitably lead to outcomes exceeded, rising profits and all-round office high-fives?

The truth about enterprise UX strategy is probably a little less glamorous, but just as empowering.

In all likelihood, your enterprise UX strategy is going to be a good old fashioned typed document aimed directly at a particular product or platform, produced after a lot of data-based research, discussion and stakeholder brainstorming. **The strategy document will, in tandem with existing strategies such as business development, IT and marketing, be the guiding light for product creation in the enterprise.**

You'll probably want to include 4 main parts in your enterprise's UX Strategy - **vision, mission, activity areas and KPIs**. What you don't want to include are concrete actions – the strategy document is a conceptual guide, not a prescriptive to do list. It outlines where you're going, not every little thing you're going to do along the way.

So we've outlined what a UX strategy isn't; time to dive into what it is and how to build it.

THE 4 PHASES OF ENTERPRISE UX STRATEGY CREATION

As UX guru Jaime Levy has it, UX strategy is "the intersection between user experience design and business strategy"; it's a way to figure out if the experience offered by a product or enterprise is helping achieve stated business goals. Do the product and brand fit the market, and do they move in sync with the market?

Like any strategic endeavor, an enterprise UX strategy should be designed in phases:

Phase 1: Knowledge & Learning

The temptation will be to dive right in and get this thing *strategized* already. But hold on. **A well-designed strategy is founded on a bedrock of data-driven research and learning.** So Phase 1 of designing an enterprise UX strategy is what we call Knowledge & Learning. Let's look at some of the things you need to find out.

First of all, the big existential question – why do you need and want a UX strategy? This isn't about people, profits and productivity, but more an attempt to answer specifically in your organization: what has been going wrong that prompted the call for a UX strategy, or what new goals are you aiming to score once the strategy is in place. **Be specific and plot some measurable success metrics: increased user engagement, quicker task completion, more conversions, whatever lets you know about user success and failure.**

Second, the searching questions – where are we now? What are the opportunities available right now, and what are the resources we have on hand? What useful research has already been done in the enterprise? What's the state of current internal software, as well as customer-facing applications, sites and software? This phase of research will require a hard look at your team, finances and company will to push through the strategy and sustain it.

Third, the future-forming questions – what new resources or skills will you need to make the strategy work? This may be anything from a new in-house UX team (see Chapter 2) to new hardware or the adoption of new work patterns.

Phase 2: Discover and plan

So you've done a lot of soul-searching and figured out the internal impulses, restrictions and opportunities behind your UX strategy plans. Now it's time to gather information about the specific UX environment in your business sector. An analysis of the competition and their UX strategies, accompanied with an honest estimation of the enterprise's external and performance environment, will stand your team in good stead to start acting.

At this stage, it's good to remind yourself who this is all for – the user. Figure out how to incorporate the user into the planning stage of your UX strategy.

So, with all the information from Phase 1, plot out a vision, mission and KPIs; or if you prefer, an overall objective, some design concepts to get you there, and some metrics to help you gauge progress.

The SMART KPIs in the strategy help you ascertain that your product is actually solving the problems you set out to solve. Building KPIs into the strategy is the most effective way to validate that you're doing what you set out to do.

Phase 3: Present and refine

Enough with the research and planning, it's time to roll it out your enterprise UX strategy. Ideally the strategy document is going to be short (if you can make it one/two sheets of paper, all the better), concise and clean.

Gather together all relevant stakeholders and present them the strategy; make the case for why you need it, and what you're going to achieve by fulfiling its mission. Don't

be afraid to get feedback from stakeholders and refine the strategy accordingly; even UXperts with years of experience can miss a trick, so check your pride at the door.

Post the final strategy up in the office wall, pin it in your project management software and make it a reference point for the team.

And that's it – you've got your enterprise UX strategy document in your hands. But Phase 4 still has to be completed, and that's the clincher between a successful UX strategy and just another unread strategy document.

Phase 4: Validate and review

As your UX friendly update rolls out, be flexible. Don't be afraid to tweak the strategy if the competition or market changes, if you get new information thanks to testing on prototypes, or if your stakeholder requirements shift. Prototype **ways to fulfil your mission concepts and validate them as you go** (check out the next chapter to see how prototyping fits into the UX product workflow).

You can validate the strategy against Jaime Levy's 4 main UX strategy tenets – business strategy, value innovation, user research and killer UX. A good strategy is smack bang in the center of these four elements, and should work to boost metrics and value in each of the sectors.

Most importantly, keep evangelizing about the UX strategy during project and product life. Share it and make it the baseline for design decisions and discussions.

> *"UX strategy is the intersection between user experience design and business strategy" Jaime Levy*

WHAT THE STRATEGY LOOKS LIKE ON PAPER

Synthesize all the information gathered in the 4 strategy phases into a 1-2 page document like the example below.

UX STRATEGY BLUEPRINT

CHALLENGES

What's the business problem? What's the user problem? What obstacles stand in the way of you and your product goals?

e.g: lack of cross functional teams, weak UX culture, user migration, increase in non-traditional competitors

VISION

What ultimate goal do you want to achieve?

e.g: market share, user adoption

FOCUS AREAS

What's the scope of the strategy, and what falls outside the scope? Where will the strategy have greatest impact?

e.g: Geographical regions, user demographics, services/products, user scenarios

MISSION

How are you going to get there?

e.g: workflow, coordination of teams, project activity plan

ACTIVITY AREAS

What general activity areas is your team going to focus on?

e.g: prototyping and wireframing, information architecture, user research and testing

KPIS & MEASUREMENTS

What are you going to measure, and how will metrics be graded to define success?

e.g: increase independent task completion by 20%, decrease user abandonment by 30%, reduce number of clicks between tasks by 50%

UX TOOLBOX TO DEFINE STRATEGY

Here are some of the most effective tools for defining a contextually appropriate, business-facing UX strategy.

Stakeholder interviews: one of the central tools to defining UX strategy, stakeholder interviews allow you to truly understand everyone's needs. Apply Kim Goodwin's iconic stakeholder interview checklist to the process.

Prototyping tools: Prototyping tools such as Justinmind will help you refine UX strategy requirements and keep everyone involved on the project onboard, as well as streamlining the design-test-iterate part of the workflow

User interviews: whether you follow the descriptive, inferential or evaluative approach, user interviews will get you one step closer to appreciating the UX impact of the enterprise's existing product, thereby opening the door to strategizing a better product.

Sector expert interviews: particularly useful if you're designing a software for an unfamiliar industry – seek out influencers and mine them for information

Competitive analysis tool: the only way to ensure a competitor-beating strategy is to audit the competition's products, software, websites and apps. The resulting report will be foundational in defining UX strategy.

Concept maps: visual maps of the mental models the UX team will follow in an enterprise

Heart: Google's HEART framework is an outstanding tool for measuring and improving UX once a product has been finalized. The acronym stands for Happiness, Engagement, Adoption, Retention, and Task Success and allows UXers to measure the

success of the strategy against business metrics. Our simplified HEART table is a good place to start; Google has more in-depth information.

HAPPINESS	*Satisfaction, likelihood of recommendation*	**User surveys**
ENGAGEMENT	*How much a user is using your product*	**Analytics**
ADOPTION	*The % of users that adopt your product after signing up/onboarding*	**Analytics**
RETENTION	*How many users stick around*	**Analytics**
TASK SUCCESS	*Time to task completion, error rates*	**User tests**

THE TAKEAWAY

While it might seem like you and your team is jumping through a whole lot of hoops just to get a one-page document to stick on the wall, the UX strategy is in reality so much more than that. It's a lodestar, a mandate for user requirements, and a reminder that what is good for the user is good for the enterprise.

CHAPTER 3 SUMMARY

1 A UX strategy is a conceptual guide, not a to-do list
2 Build the strategy on a bedrock of data and learning
3 Analysis of the competition, external threats and the performance environment will strengthen any strategy
4 Keep the strategy short and concise
5 Prototype, test, tweak strategy

01

02

03

04 CREATING UX FRIENDLY ENTERPRISE SOFTWARE

> *"I have to wonder: what is it about the world of enterprise software that routinely produces such inelegant user experiences?" Khoi Vinh*

Once your team and strategy are in place, it's time to apply UX principles to the actual product – enterprise software. All companies, from a nascent start-up to a global behemoth, need internal enterprise software. Granted, 'enterprise software' is a catch-all term encompassing big players such as ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) and more niche software such as business intelligence and content management. But what unites this disparate software under one roof is simple: it all helps people do their job.

In theory, that is.

In practice, enterprise software has a bad rep. Notoriously clunky and 'inelegant', as Khoi Vinh has it, **enterprise software has been blamed for negative impacts on employee productivity and happiness**. This in turn leads to problems with absenteeism, higher turnover, higher training costs, bad customer service. It also increases the potential for serious problems: software entry errors made by medical employees can lead to life-threatening situations; employee confusion over data storage can lead to cyber-attacks or massive data loss - the full catastrophe.

It's not just niche enterprise software or small enterprises that fall foul of unusable software: in 2011 tech giant Ingram Micro revealed that a disastrous SAP roll-out had led to first quarter drops of over $15 million, from $70.3 million the previous year to $56.3 million. The problem, said Ingram Micro, was down to "difficulties transitioning to a new enterprise system in Australia". Clunky enterprise software and clumsy implementation can have global impact for a company, even one as big as Ingram Micro.

ENTERPRISE SOFTWARE INHERENTLY UNUSABLE?

What is it about enterprise software that causes so many usability problems and development headaches? Is enterprise software simply too complex and too security-centric to ever render the user pleasant and productive experiences?

Yes and no. Undoubtedly, enterprise software is inherently more complicated than many customer focused apps or platforms, with some ERP suites racking up hundreds of thousands of pages and screens. And security, both in terms of employee and outsider access, is a huge concern. Add to that the following and you've got a perfect storm of bad UX brewing:

- The software buyer is almost always a C-level exec, not the user. They're buying on costs not usability.

- Multiple stakeholders mean multiple priorities, and little chance of aligning them in an elegantly usable solution.

- Silo-ing between engineers and programmers, designers and marketers, without a UX team to glue them together.

- A lack of UX tradition in the enterprise.

In a nutshell, as UX Consultant Jon Innes has it, we've been dealing with "software for corporations, designed by corporations", with no thought spared for the user. But that is changing.

CONSUMERIZATION OF ENTERPRISE SOFTWARE

The gap between enterprise and consumer digital products is getting narrower all the time, and it's not hard to figure out why. The software we now use in every aspect of our daily lives, from mapping our exercise and diets to building social communities, is fun, intuitive and addictive. Users now expect, even demand, similar levels of usability in the software the use in work hours as well. Add to that the fact that in more informal organizations enterprise software is now selected by the very teams who have to use it, meaning that design and usability win out over the hard sell.

Executives are recognizing this sea-change. In a 2015 study, PwC found that out of 2000 global executives, 74% stated that user-experience and human-centered design were important to their business. IT consumerization schemes such as Bring Your Own Device (BYOD) have rocketed worldwide, with over 40% of US workers now accessing work software with their personal phone or tablet. **The line between work and play, at least as far as device and software use is concerned, has been blurred for a while now**.

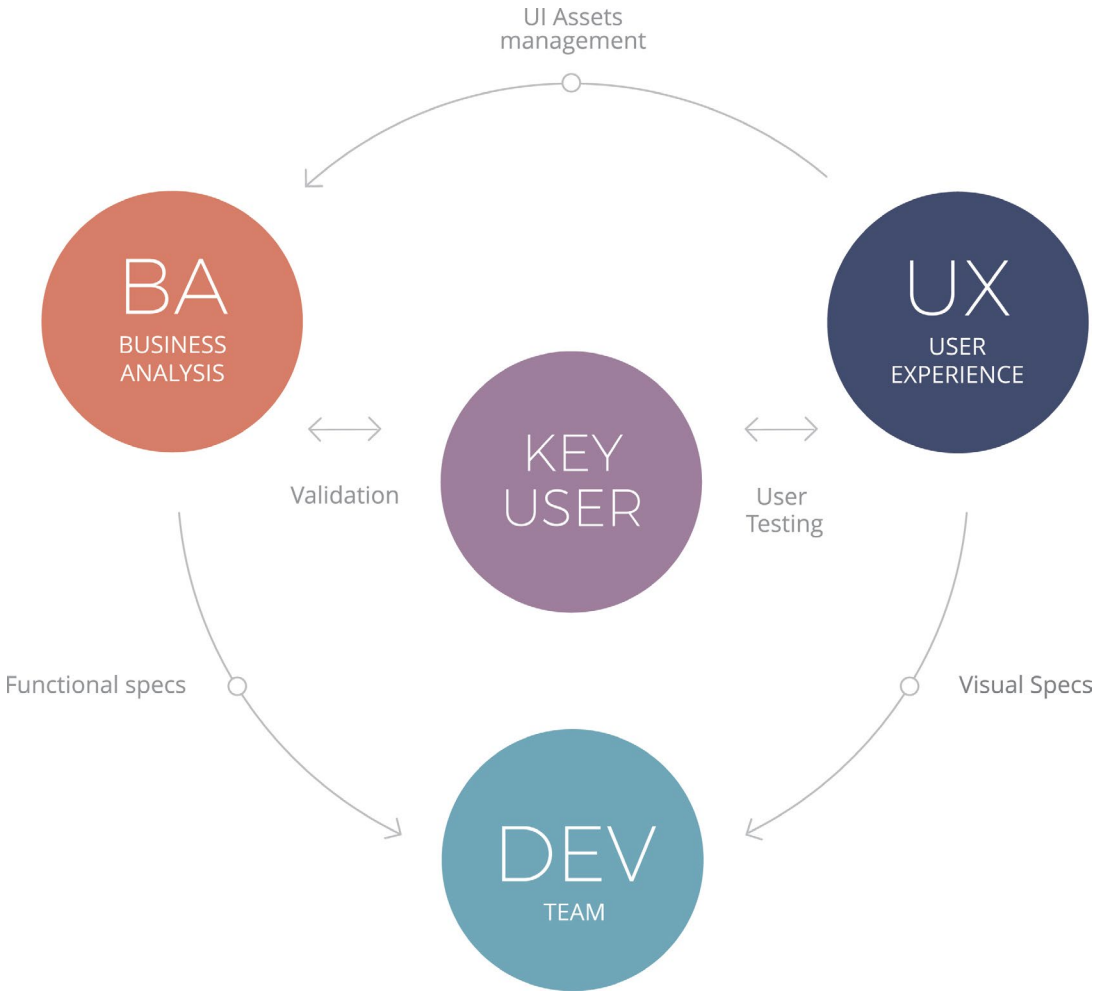
The movement towards consumerization has hugely positive impacts on organizations. Take an example cited by UX advocates Deloitte, who point out that incorporating usability into the redesign of a client's ERP systems led to a 300% increase in worker productivity, a 55% reduction in training time and a 21% improvement in upsell and cross-sell.

> *"What people care about is that they want to get their job done and feel happy when they're finished," Don Norman*

HOW TO CREATE CONSUMER-GRADE ENTERPRISE SOFTWARE

Implement a UX workflow

There's no perfect formula for creating UX friendly software, especially when it comes to organizing the team and their tasks: workflow will differ from project to project, and product to product. The basic workflow outline for Justinmind clients goes something like this:



User experience: The UX team build and share UI libraries, templates and master documents with Business Analysts and PMs, meaning they define and maintain User Experience consistency with customizable assets.

Key users: Key users participate in the process from early on. The UX team can run user tests in order to get feedback, iterate and validate high fidelity prototypes before moving on to development.

Business analysts. Business analysts can create interactive screens and add text requirements to the UI with a simple drag and drop. They can then validate requirements with key users and generate functional specification documents for the Dev team.

Development team: The Dev team simply needs to connect to the prototyping platform in order to get visual and functional specs from prototypes and documentation. This guarantees faster implementation and reduces the amount of rework.

Break down resistance to change

> *"The user experience drives adoption, and user adoption is an important first step toward realizing business value from big investments in enterprise systems," Alan Langhals, Technology Service Leader at Deloitte.*

Executives and managers are alive to the benefits of usable, user-centric software, but that doesn't automatically simplify the integration of UX processes and principles. "It's a big shift for companies to adopt this way of thinking and this way of working," points out Lean UX author Jeff Gothelf. "People fear change, they fear for their job, their bonus, their salaries, and if you try to change stuff too quickly without telling them why, they'll resist." Breaking down resistance requires above all transparency. "**The more transparent you can be about why you're trying to change and what that change looks like, the more likely you'll be to drive meaningful impact in your organization**," says Jeff. Read the full interview with Jeff Gothelf at the end of the eBook

Talk to workers, not the Board

Obviously, you got to talk to the Board sometimes, but not right now. Honest discussion of what workers, users and departments need from the software they use is paramount. Contextual investigation into how workers engage with current systems is a good place to start - try to spot their improvised work-arounds for failing features (a note reminding them how to process a purchase order; a mind-map of how to find archived invoices); have them narrate their processes or thoughts as they interact with an interface; record how many out-of-system integrations they're stitching together. This goes for internal and external users alike: **UXers simply have to understand how people do their job**.

The only way to create consumer grade employee, B2B or partner software is to put the user at the center of the development process, and the only way to do that is to listen and learn.

User-down, not IT-up

The vision for a new software solution should be user-down, not IT-up; in other words, it should be built around what the user needs, not what IT needs. It sounds idealistic, but a user-down approach maintains a business core. Jeff Gothelf again: "we try to understand the business problem that we're trying to solve. Baked into that business problem are typically a whole lot of assumptions about who the customer is, what value they might gain from a product or feature, etc. So let's extract those assumptions, and then using those assumptions we create hypotheses - testable statements that help us think about how we can potentially solve this business problem." This requires blue-skying on how users might perform their work roles, a 100% familiarity with business systems and processes, and interaction with user groups.

Design, prototype, iterate, repeat

There's no better way to validate (or dismiss) a solution than by seeing it in action. Prototyping a software solution, be it a single feature change or an entire new enterprise system, is an effective way to maintain a UX centered approach. Static wireframes can be used to test navigation flows and intuitive information architecture, whereas high fidelity prototypes lets users run through the entire gamut of daily tasks in the system and provide feedback. Full on user testing can be run on prototypes even if they don't house the data and information of the eventual software. **Prototypes are low-risk, low-cost, low energy, and impressively high impact**.

Involving the users in testing and commenting on prototypes has the added bonus of increasing investment in the UX overhaul, and in improving the chances of adoption on release.

Establish the user-centric process as a constant

A UX-friendly software development cycle isn't something that happens once and is then shelved. An enterprise that has absorbed UX into its fabric will bring in the user perspective every time software is updated, tweaked or introduced. Each player in the process, from engineers to business analysts and end-users (not to mention the UX team!), stands to benefit from a strong enterprise UX culture. **User requirements should be baked into the general requirements documentation along with functional and non-functional requirements, and business needs**.

HOW DO YOU KNOW IF ENTERPRISE SOFTWARE IS UX-PROOF?

> *"Building products for people to use at work shouldn't be an excuse for bad design." Amanda Linden*

Let's take a look at some targets a design-development team should be looking to hit in UX friendly enterprise software:

- In one of their first encounters with the software, users should be able to achieve something on their own, advises Asana´s Amanda Linden. It can be something as simple as creating an order or uploading a file. But users should be able to do it without help. The first iPads were released without instructions because, according to Apple, "you already knew how to use it." That's also the UX benchmark for enterprise software.

- Users should be able to customize the software, even just a little. Adding an avatar, an out-of-office update or a color palette should not require users to spend 30 minutes on the phone to IT.

- "No-training" might sound an unrealistic goal, but it should be the ideal state that designers are aiming for, even of complex enterprise software. As more millennials enter the workforce and user familiarity with various interfaces increases, lengthy and costly training sessions in how to use software should become a thing of the past. Invest in no-training and work for it.

- Upon opening the interface, users should be able to access 50% of their vital job functions immediately, and within 2-3 clicks have access to 80 or even 90% of their job function, advises Alan Langhals of Deloitte. Intuitive interface architecture is crucial to achieving this goal.

THE TAKEAWAY

When it comes down to it, the advice from UXperts and enterprise software developers is consistent: observe users interacting with software, design from a user perspective, involve users in testing prototyped solutions, get buy-in from management and define a development cycle that is iterative and interactive.

> *Usability problems, once solved, become business solutions.* 

CHAPTER 4 SUMMARY

1 The gap between enterprise and consumer software is getting smaller

2 People fear change, so reassure them

3 UX implies understanding and caring about how people do their jobs

4 Stay user-centric through frequent design-prototype-iterate cycles

5 User requirements are not an add-on; they're an integral part of requirements documentation

MAKING AN ENTERPRISE UX FRIENDLY: CONCLUSION

We've learned the following to be true:

- Enterprises must become UX-ready or suffer negative business impacts
- Bad UX negatively affects people, profits and productivity
- Integrating UX culture starts with integrating a UX team, however small
- A UX strategy can be as short as one page, but should impact every decision made
- Resistance to change must be met with transparency
- The user's perspective should inform the software solution; the business impact will follow

So there it is, a quick guide to making enterprise processes and software UX friendly. Implementing a cross-functional UX strategy requires planning, problem-solving, monitoring of results and, perhaps most importantly, honesty and transparency about where your enterprise is and where it wants to be. By researching, designing, prototyping, testing repeatedly, you'll come up with a UX culture that positively impacts both users and business goals; a UX culture that builds products that work.

Contact **Justinmind Enterprise**

HOW LEAN UX BUILDS BETTER PRODUCTS: Q&A WITH JEFF GOTHELF

Lean UX, a little prototyping and a whole lot of product development – we take a peek inside Jeff Gothelf's mind.

As the co-author of Lean UX: Applying Lean Principles to Improve User Experience, Jeff Gothelf's hypothesis-based approach to user experience design has helped revolutionize product creation over the last five years. In the book, which just launched its second edition, he and Josh Seiden combine lean ideas with design and strategy to build processes that are more collaborative, iterative and open. The result? Better teamwork, better transparency and, ultimately, better products. Products that people actually want to use.

We spoke to Jeff about Lean UX, its impact on business, and his tips for building a user-centric design process. Oh, and he also told us about that time he ran away to join the circus. No, really.

Can you explain what Lean UX is, in your own words?

To explain it concisely: Lean UX is how we integrate user experience and design into Agile product development. It's really an approach to bring the customer into the center of the conversation consistently, and to do so in a cross-functionally collaborative way, working with colleagues in engineering, product management, marketing, and QA. The point of that is to experience our ideas together as a team, so that we build a shared understanding of what's working and what's not. Instead of debating "does this work, does this make sense", we actually get to the fun part of making products and services, which is figuring out how to solve problems. I think that's the biggest benefit of practicing Lean UX.

Give us an example of what a Lean UX product development process looks like and where it fits in with Agile

If you think about Agile in the way it's being adopted today – which is different from the way it was intended– but if you think about it in the way it's adopted by most companies, Agile is focused on increasing the pace of delivery of software. The Agile folks call it 'velocity' – how to get more stuff out the door faster. Where that fails is it doesn't help teams determine what they should actually be working on, and it doesn't help teams understand what done actually means. When you optimize velocity, done means "it works, we shipped it"; but that doesn't tell us whether customers use it, whether it adds value, whether it makes our business more successful, etc. And so what Lean UX does is it adds a brain, a decision-making mechanism into the Agile software delivery process.

We do that by discovering collaboratively what we should be working on. We take a look at what we're tasked with doing, and we try to understand the business problem that we're trying to solve. Baked into that business problem are typically a whole lot of assumptions about who the customer is, what value they might gain from a product or feature, etc. So let's extract those assumptions, and then using those assumptions

we create hypotheses – testable statements that help us think about how we can potentially solve this business problem.

We then start to run experiments round those hypotheses to get a sense of whether they're valid. Those experiments take many forms – landing page tests or feature fakes, for example – but even earlier than those tests you can bring in a lot of design-based tests like prototyping, paper sketches or customer interviews. These are all ways where you can start to build a dialogue with the folks you're building products for, to understand whether or not you're actually building something they want.

So, outlining the steps of a Lean UX process: we take a cross-functional team, we get them to declare their business assumptions and write hypotheses; we start designing some solutions together to figure out how to build lightweight experiments against those designs; then we use that feedback to determine whether this is still a good idea and whether we should invest in developing it.

We're moving away from the feature as the measure of success, and proposing a change in customer behavior, an outcome, as a measure of success.

Tell us a true story that illustrates why large enterprises should be investing in UX, and how they should be doing that?

There are several case studies in the book. One of my favorite is PayPal. We started engaging with them 4 years ago, and when we started working with them they would write 30 page specs to change one line of copy on the website, and it would take 2 months to implement. Now they've taken a tremendously healthy step forward in modernizing their processes, the integration of design, front-end engineering and product management. They've facilitated a tech environment that allows them to build experimental prototypes, and then if those prototypes succeed they can move seamlessly from prototype to production. Integration of their various disciplines has moved them away from heavy documents and deliverables, which kept them from

moving forward with any kind of speed for a long time.

Another example is AutoTrader UK. As an organization they realized that implementing Lean UX is not a standalone silver bullet; they've taken the ideas behind Lean UX and have built cross-functional teams that are tasked with changing customer behavior. They realize that this is a cultural shift as well, so they are changing how the teams are incentivized, measured for success and they are shifting the way they assign work to the teams.

One of the biggest challenges of product discovery or Lean UX is you frequently discover something that goes against what you were tasked with doing; that happens a lot, because what we're tasked with doing is built on assumptions, and if we go in there and start to test those assumptions we may find that that task is the wrong thing to be doing. In many organizations that's not a very comfortable or safe conversation to have; very few people feel comfortable going up to their boss and saying 'that's a bad idea, we shouldn't do that'. And so what AutoTrader UK has done is create a culture where evidence trumps: you can come in, present the evidence and use it as a justification for doing one thing instead of another. That's a cultural shift that is needed to support this way of working. It's a big shift for companies to adopt this way of thinking and this way of working.

Top tips for building a strong UX team within an enterprise?

I think the best thing you can do is to start engaging with customers as regularly and consistently as possible, and bring as many people as you can to the conversation. The more we can expose people to customers, the more humility we start to drive into the organization and the resistance to Lean UX, product discovery and outcome-based management starts to soften. That's key. Jared Spool talks about exposure hours – the minimum house per month that staff are required to spend with customers – and companies that mandate exposure hours build more successful products. By far that's the most successful tactic.

The second tip is to build small dedicated cross-functional teams. Build these pods of product, design and engineering that sit together (if they're distributed at least make sure they're in the same or very close time-zones) working on the same project for an extended period of time. You want these folks to get to know each other, to build trust, shared language and rapport, and through that simple spending of time together they start to look at different ways of working and respect each other's opinions more. They start to think of themselves as a unit that wins or loses together.

If you already work in a company and you're trying to get this way of working to be more mainstream, find the one executive that has already bought into the idea. There are executives in your company that have read all the lean books; find that executive and ask them to sponsor some kind of pilot initiative.

One of the most important things to getting this way of working accepted is transparency: people fear change, they fear for their job, their bonus, their salaries, and if you try to change stuff too quickly without telling them why, they'll resist. The more transparent you can be about why you're trying to change and what that change looks like, the more likely you'll be to drive meaningful impact in your organization.

You've spoken about Amazon as something of a software development paragon – what do they do that works?

I've spoken about Amazon both for good and bad in the past! There are things they do culturally as company that are right in line with this way of thinking – they put the customer first, solving real customer problems, delivering customer value and waiting for the business value to come from that as opposed to just shooting for short-term business gains.

Amazon has always had a customer centric point of view, but on the other hand they also have CEO/Founder who is very smart and opinionated, and he forgets some

of these customer-centric mantras sometimes. Look at the Fire phone – that was a Bezos driven project focused solely on competing with Apple, that didn't take into account any assumptions about customer value and that delivered a product that was DOA. The company learned a very valuable and expensive lesson. If you hear Bezos talk about it today, he says, "we're a huge company, we took a huge risk, and they only way we're going to continue to grow and get better as a company is to take these risks".

Very few companies are on the scale of Amazon, but taking small risks, doing experiments and running tests provides insight into where to go next with products and services. Lean Start-Up, Agile, Lean UX, product discovery – all of these things are risk mitigation tactics. That's it. If you could make risk mitigation into a sexy book title, you could sell it just like that. You're reducing the risk of making things that people don't want.

The second edition of your book is coming out in October, co-written with Josh Seiden – what updates have you made, and how has the Lean UX landscape changed since you first published?

It's been 4 year since we turned in that manuscript: in those 4 years there's been an even more rapid adoption of Agile, there are a lot more people practicing Lean UX and our thinking around what we wrote initially has evolved. We wanted to update the book to include new case studies, explicit conversations around design sprints, the concept of dual track Agile and dual track Scrum, and to really update the thinking to be more strategic.

While the book is still practical and tactical, when we wrote it initially it was a very tactical designer to designer conversation, and we wanted to be more strategic because that's where they questions that we're seeing these days are headed. People want to know how to get buy-in for this way of working, how to build it into roadmaps and planning, and how to use data to make decisions. We added a lot of those

elements into the book and modernized it, and frankly just wrote it a bit better. We're just better writers than we were 4 years ago!

There's a hunger for participation in the strategic planning process by UX designers and designers in general. In most organizations designers don't get that privilege, so this way of working helps make the design process more transparent, and hopefully more obvious to the folks who strategic decisions. Design and UX are critical to those strategic conversations.

Is it true you ran away and joined the circus after graduating? What did it teach you? What out-there advice would you give young graduates hoping to start their careers in UX?

It's true! I was in my last week of university I wasn't sure what I was going to do. I was partially a music major and partially a media production major, the circus was coming through town and they needed a sound guy. It was a gig, and it paid more money than I'd ever made in my life; so I graduated on Saturday and I joined the circus on Monday, travelling with them up and down the East coast for 6 months. It was crazy and I hated it for a while, then I kind of learned to love it.

My advice is, do that crazy shit. I've been telling circus stories for 20 years and I wouldn't have those stories if I didn't do this crazy thing. I learned a ton about a world that I never knew existed, and in hindsight I wouldn't trade it for anything. As crazy stuff like that comes up, take the risk. Folks always ask me what's a good way to break into design or Lean UX, and my answer is just start doing something – you don't have to do it all, or transform a company or department top to bottom, but pick a thing that you care about and activity that you think will add value and take the initiative to drive it forward – take that risk.