



THE USER EXPERIENCE GUIDE BOOK FOR PRODUCT MANAGERS

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Preface

This book is a product. It has a certain function, content, design and clear goals. I've planned it as a product; I've managed the process of creating it (which mostly meant managing myself, but it still counts...); I've user tested it and I'll distribute it all over the world.

This book is no different than any product that I or you have worked on. It's just like my first professional websites, eCommerce services and mobile apps - designed to solve the problems of a target group.

Your reading this book (and hopefully finding a value in it) proves that techniques that I used while writing it work. That's the perplexing nature of product development. It's always validated by customers.

And today, finally, customers are at the center of the product development process. We live in a world where companies fight for customers by

providing a stunning experience. That's a great world to live in. It's all still relatively new though. While User Experience Design formally started in the 90s (and informally can be dated back to, at least, the late 70s) it has never been anywhere near as popular as today.

I think this is the right time to show User Experience Design outside the User Experience Design field. All the members of product teams of the Tech world should understand and participate in the design process.

Hence this book. The guide book to User Experience Design for Product Managers. I hope it will be the starting point of your journey to the heart of UX. Enjoy!

Marcin Treder

P.S. As my customer, please assess my work bearing in mind my goals for this book:

Explaining what User Experience Design is and why it matters
Showing the place of Product Managers in this design world
Teaching a couple of crucial things about the practice of cooperation in the design process.

1. THE RISE OF PRODUCT MANAGEMENT

In this age of massive consumption the world has been flooded by products. Products have penetrated markets, public space (advertising) and our minds (everlasting desire). Products lead economic progress and cause crises (e.g. the whole issue of bank loans sold to people). Products are so deeply rooted in modern culture that we've hardly noticed that we've become products ourselves (e.g. social media).

In this broad view it's relatively easy to lose the meaning of the word "product". On a very general level everything that can be purchased is a product. **A product is something promoted to be effective in an economic exchange.**

That's certainly a concept as old as human culture. Barter (commerce based on the exchange of goods) created products before the concept of money was invented by the Phoenicians. Somehow the creation of things that are to be desired lies in our nature and supports our evolutionary progress.

Our modern times added something uniquely new to the reality of the product - **surgical precision of product engineering**. Planning the design, technology and marketing in such a way that doesn't leave unaware consumers a chance. A couple of tricks and a line forms in front of the Apple Store waiting for a new gizmo.

That's something that started to happen with the arrival of the first iPod. Not the first mp3 player on the market, not the cheapest one (actually, among the most expensive...), not the best one... but simply **the one**. The one that has dominated the world.

How come? That's simple. The iPod was the first modern product. A product engineered to be a success by an interdisciplinary team led by the best Product Manager in history - Steve Jobs.

Thousands followed. Today among hundreds of successful startups we can see the same pattern. Great leaders guide their teams to the creation of well designed products that are engineered to cause extreme desire. The magnetism of new products cannot be ignored. Fortunes are being created. The economy prospers (well...maybe not globally, but just take a look at Silicon Valley). Consumers are surrounded by physical and digital things that are irresistible.

That's the situation, which from one hand is perfectly natural and from the other hand is worthy of applause. The efficiency of the modern product is an amazing sign of progress. Not only do we buy more, but we're actually handed better products.

I suppose many would disagree. It's easy to hate modern times because

of the constant selling-buying process that there's no escape from. I agree that it might be wearisome.

On a deeper level though modern products simply couldn't be better for us. Why? Because they're human-centric.

Cheap tricks don't work anymore. Bad products lose; the best things are admired. And the best things are beautiful and stunningly smart. The experience of a consumer just recently became the single most important thing in the world of products.

To give you an example: the greatest power of [UXPin](#) (my company) isn't our agility, or even the fact that we're a group of designers who are building an environment for people who design websites and mobile apps. Our greatest strength is the fact that we care. We care for our clients. We care for all the people who are trying to design something meaningful. This constant care is leading our product development cycles and leading us to dominance on the market.

Care is an inseparable part of the human-centric product development process, which is responsible for the greatest products ever made.

Changes in technology (it's cheap to make a digital product today) and the financing of small businesses (seed capital is easier to gather than ever) made it possible for a small group of people to create a ground-breaking product. **A product capable of changing everything.**

And this, ladies and gentlemen, is the time of the rise of Product

Managers. The world needs great products. Great products need great leaders.

The Role of a Product Manager

A Product Manager's role in the organization may seem to be ambiguous. It lies at the crossroads of the competences of multidisciplinary teams and plays the important role of a lighthouse guiding each individual team-member through the meanders of his/her tasks.



Photo Credit

This may leave you feeling that a Product Manager is not needed in the team. This role doesn't add any 'hard' skills (design, engineering...) nor

generate tangible results. Instead a Product Manager (PM) works as a communication hub, an integrator of the stream of communication, a facilitator, timer, calendar and a guard of product quality.

It's such a general, multidisciplinary role that it seems like it's not necessary.

In reality it varies from company to company. The value of Product Management depends on the maturity of the product, the maturity of the team, the size of the team, the need for speed, etc.

In the case of [UXPin](#) we didn't need a formal Product Manager in the first 2 years. A company run by UX Designers was doing just fine with a small team and average speed. We were testing a lot of concepts looking for our place in the market and it seemed like we had everything that we needed.

But one day we understood that we either start to improve our product development cycles or we die. Death was not in our plans, so we made sure that we were hiring the best Product Leader possible and we designed the organization around him. Since this decision the company has been on the right track to complete success.

While finding a place in your team for a Product Manager might not be an obvious choice, it's worth taking the risk. You need the best product and the best product needs the best leader.

In the case of startups at a single point in time (probably after a second round of financing) the CEO cannot be the product leader, or the only product leader, of the team. A product requires constant care and atten-

tion. If you try to take care of it on your own, you may fail. And this kind of failure might be decisive.

The key to success in shaping the role of a Product Manager in your company is a precise definition of it.

Sachin Rekhi, an entrepreneur from San Francisco, a former Microsoft and LinkedIn Product Manager, says that the PM's role is threefold and based on the possession of certain parts of the product development process. In his opinion product management can be described as:

- **Owning the vision** - clearly formulating and then evangelizing the audience you are targeting, the distinct problem you are solving and the solution that will lead the company to dominate the market.
- **Owning the design** - working with designers to make sure that the user experience is aligned with the vision. Overlooking the overall quality of the product. Being the voice of the users together with designers.
- **Owning the execution** - PMs must do whatever it takes to ship the product on time and with a quality better than expected. Most Product Managers that I know use very traditional tools to deliver this goal: creating the roadmap, setting the scope for each part of the overall project, tracking the progress, prioritizing bugs and feature suggestions, etc.

I once heard: "There is a difference between building the product right and building the right product." - and the Product Manager's role is to

make sure both parts of the equation are properly served.

In a way, the Product Manager is doomed to be torn between the users and the team. The creation of a great product means listening to both sides. The team and the users united by the Product Manager are the human mixture of success.

Cooking the mixture of success requires the constant choice of ingredients. And that's probably the single most important duty and competency of a brilliant Product Manager: choosing what is valuable. Among many design, feature and technology requests the Product Manager must choose what's absolutely necessary for the final success of the product.

As Paul Graham from YCombinator said: make something people want. This cannot be done without a great team of engineers, designers and marketers but the overall ownership of the product falls on the shoulders of the PM.

What do Product Managers do at big companies?

Many of the best companies in recent years have been established and run by great Product Managers. Mentioning Steve Jobs again would be too easy. Instead, think about Larry Page from Google, Evan Williams and Jack Dorsey from Twitter, Kevin Rose (Digg), Caterina Fake (Flickr) - these extraordinary people created amazing companies around their amazing products. They understood their users and their team. They were able to deliver stunning design, technology and marketing.

Today, entrepreneurs shaping their products and companies should take a look over the shoulders of their big brothers - mature companies, to understand what role Product Managers play in big companies.

By far the best description that I've found of the PM's role in a big organization has been written by Edward Ho, former Google Employee, on [Quora](#). I'll take the liberty to quote it, so you'll see what Product Managers are like in the eyes of an engineer:

"Alright, I'll give this a shot based on my experience working at Google with the best Product Managers I've ever seen anywhere. I am not a PM, so these are based on my observation of the best at Google.

(PMs) Take ownership of the product and all issues related to it. This goes a long way; if you own the product, you are the first one looking for bugs, first communicating with users and first worrying about whether or not you got it right. You're always first to volunteer to do the many varied tasks that go along with running a product/team like taking notes, sending emails to customers, filling things out, triaging bugs, or doing a quick mockup. Always start with: **It's not someone else's responsibility, it's your responsibility.** (...)

Be incredibly persuasive. (I don't really know how to do this one, but I see it done every day.) You want to get things done, but you are not in charge so to speak. None of the team reports to you and they really don't have to do anything you say. **You need to be convincing rather than commanding** to get things done at Google. If you are doing #1, this is easier because everyone knows you are going to be in the trenches with everyone else if the stuff hits the fan.

Be an engineer. I don't mean that you actually need to be coding the product. I mean you should be curious about how the product is built as if you were an engineer. You should be interested in understanding how much something costs in engineering time, and why it costs so much. What algorithms are in use for that feature? Why is this page slow? Any engineer on the team will pay a lot of attention to big architecture decisions that affect the product and so should you. You should be able to explain the tradeoffs of major engineering decisions if you run into the founders and they want to know why something works the way it does. The best PMs at Google **enjoy getting very technical whenever they can.**

Be endlessly positive. Your team is likely composed of engineers and some of us tend to be very cynical. A very positive PM can make a world of difference in the mood of the team. You may feel silly being so positive all the time, but it's infectious and your team will feed off of it. Remember that you and your Tech Leads (lead engineers) may know of a million things to get you all down, but the rest of your team is likely not exposed to all of that. You help them do their jobs better by not wallowing in your worries because as the PM, **you are the team's window/messenger to the larger company.** If you are negative, then that's how the team will think the rest of the company perceives their work.

Don't self-promote. This should be obvious, but if you attempt to self-promote, it's incredibly obvious and poisonous. Celebrate others on the team, you and the Tech Lead(s) are already the primary contacts for the project and you don't need any promotion. If you are dragging around the hard work of others attempting to earn kudos for yourself, you're doing it wrong and you won't go far. **Be inclusive.** Whether it's a blog post, or

a launch video for a new feature the best PMs promote their team members. Take a look at the blogs for some of the best products at Google. You'll find the blog posts are written by a very wide array of individuals and not always the Product Manager because they are actively promoting others. (Please don't confuse my usage of "promote" with actual job promotion which is a different animal. BTW the latter is highly dependent on peer reviews.)

Fearless. A better writer could explain this better, but you must be blind to titles. The best PMs will speak to the founders the same way they speak to engineers or designers on their team. If you freeze up when questioned about your product decisions by execs, you won't be successful. Give succinct answers and **be fearless when defending your team's ideas.**

This amazing description shows how important the role of the Product Manager is in an organization and how some of the best Product Managers in the Tech world achieve stunning results.

Mixing soft skills and facilitating the work of others, with a broad set of skills and interests and the ability to share the success seems to be very important for Google employees and who knows, maybe it will be important for yours as well? It's worth trying.

Why Product Managers will be even more important tomorrow

A product-centric world needs great Product Managers today and will be in need for even better PMs tomorrow. Why?

The changes in the world push small companies and startups forward in an unprecedented way. Instead of huge corporations, companies that have a couple of dozen, up to a couple of hundred employees are winning the market. The agility of the team and the lack of bureaucracy make such companies the most dangerous weapons of the modern economy.

At the same time, today customers demand amazing products. It's not good enough anymore to have great technology and a so-so design. Everything must be top notch. Design has become king and it has a huge court. Managing products with such an emphasis on quality cannot be done by teams devoid of product management skills.

2. PRODUCT MANAGERS IN THE AGE OF USER EXPERIENCE DESIGN

Design was never as important as today. Products win or lose because the merciless market judges their user experience as amazing, or a terrible misunderstanding. That's the completely new era that we all need to face. That's the new age. **The Age of User Experience Design.**

What exactly does "The Age of User Experience Design" mean? Does it affect the job of a Product Manager? Should we be concerned about this new age, or is UX just important to designers? We'll try to answer these questions in the following paragraphs.

The Age of User Experience Design

To start with let's consider some proof that the Age of User Experience Design really exists.

Think about the infamous patent wars. They used to be exclusively about technology, but today Samsung and Apple fiercely fight over design. Do

you remember the leak of Samsung's internal presentation about things that designers should copy from Apple's devices? That was a scandal, but it shows how important design became. It's not only the decoration of the product. Today User Experience Design is the very nature of every product.



Photo Credit

The Apple/Samsung battle shows that even the biggest corporations know that whoever wants to conquer customers' emotions with unique designs, must make User Experience Design the heart of the product strategy. Now, remind yourself of Microsoft, who surprised the design world with a coherent, beautiful system across devices – Windows 8. And though Windows 8 has its stronger (Phone 8) and weaker (PC version) points, Microsoft could have lost everything if it hadn't been ready for a strategic change - treating User Experience Design seriously. Instead of the drama,

they won back their important position on the mobile market. Microsoft showed that today innovation is done through the design.

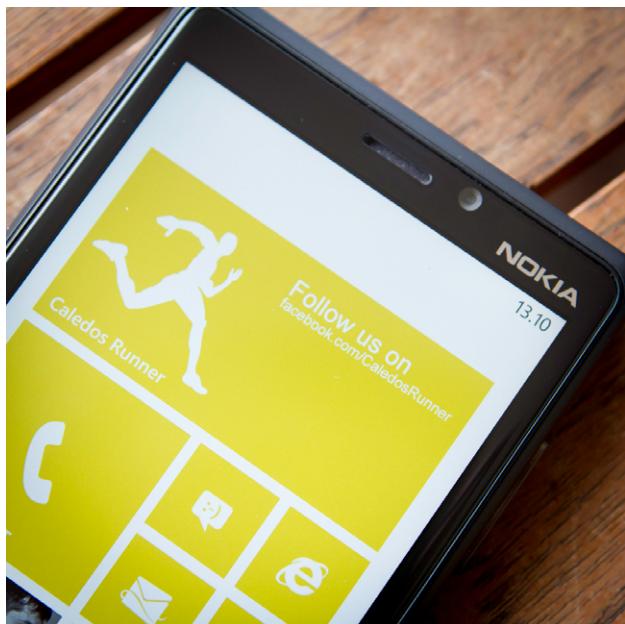


Photo Credit

Google, the former engineers' kingdom, redesigned all its significant products and employs UX designers all over the world. They understand the value of UX (the User Experience acronym) as a whole organization. On several occasions, Larry Page (CEO) mentioned that his main duty is to make sure all the products deliver an unmatched UX.

Not to mention Apple, the most valuable company in the world, that built its success on well-crafted designs. Most Apple products (especially after the return of Steve Jobs as the CEO) are clever and beautiful designs. That's why the iPod, iPhone and iPad were revolutionary, instead of all the

other devices on the market.

On the contrary, an incident that emphasized the growing importance of UX design was O2 UK's rejection of the sale of the BlackBerry Playbook, because of "issues with end-to-end customer experience".



[Photo Credit](#)

In the Age of User Experience Design you either have the guts to take UX seriously, or you lose everything.

For all Product Managers, there's nothing more important today than learning how to help teams build products with stunning designs and deliver an unforgettable user experience.

And of course making sure that the product is alright was always the PM's

duty, but today the **design is at least as important as the technology**. That's an important change of paradigm.

We got used to the Tech ruling the world. After all, the Tech revolution was started by engineers. The Woz (Apple), Bill Gates (Microsoft) and Bill Joy (Sun Microsystems), were all geeks playing with code and circuits.

And even further down the road - techies ruled. Internet startups that survived the dotcom bubble of 2000 were run by tech bright minds. Think of Google's Larry Page and Sergey Brin, eBay's Pierre Morad Omidyar, Max Levchin and Luke Nosek of PayPal, David Filo from Yahoo – these guys know how to code. And in even more contemporary times developers struck again: Jack Dorsey (Twitter) and Mark Zuckerberg (Facebook) shaped the social media with their tech expertise.

Suddenly, **the age of technology ended**. Fierce competition among similar (when it comes to technology) products forced executives to look for a new kind of differentiation. Technology was not enough anymore, as it became easier and cheaper than ever. Consumers didn't care about engineering tricks. They started to care about the experience. Design became the new leader of the race.

“Design and marketing aren’t just as important as engineering: they are way more important.” [says Dave McClure](#), founder of [500 Startups](#) – one of the most important startup incubators in the world, and he’s got a point. The world has changed and products now succeed if they provide stunning UX.

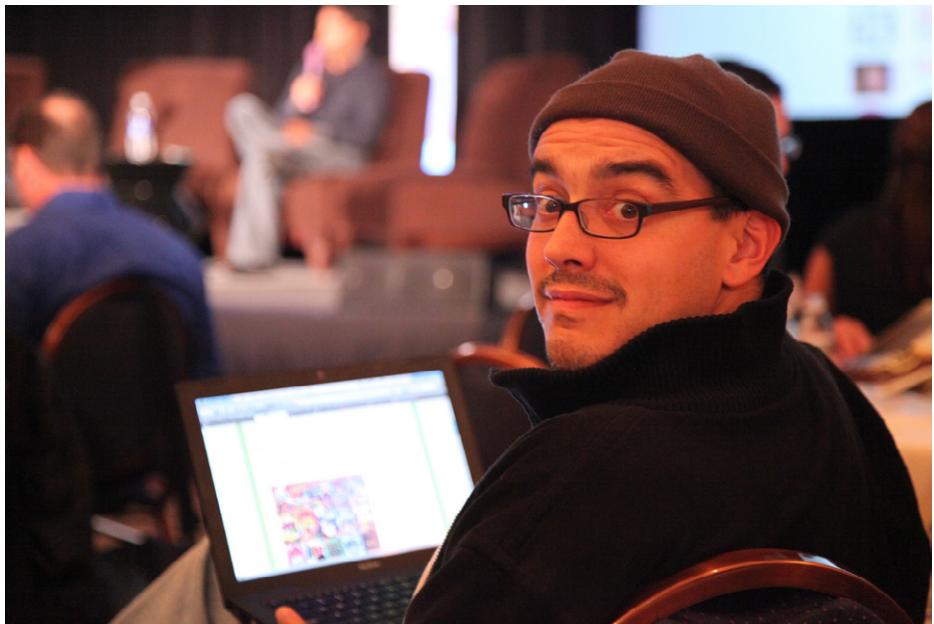


Photo Credit

YouTube, Airbnb, Flipboard, Square, Pinterest, Etsy, Path, AboutMe, Slideshare – all these well designed, successful products were co-founded by designers. Can your products afford to ignore this trend? Do you want this trend to be ignored?

The practice of User Experience Design is not only a direct route to a successful product. It's also a road to satisfied customers. And as you're well aware - sometimes we're makers and sometimes we're consumers. In the best interests of all of us we should treat UX seriously.

What does this whole situation mean to product management practice? Today's PMs have to understand the design process, know how to support it and treat products holistically - from the technology, through the design

to the distribution. A successful product is more than tech.

What is User Experience Design?

If you're working as a Product Manager you've probably already been working with some UX designers. You've seen the techniques that they use in action and you've seen their approach to the design. Does it help understand the whole concept? Hardly. Theory often gets lost in the tumult of everyday duties and only the theory leads to overall efficiency, rooted in the understanding of the whole picture.

It doesn't help that UX has become a hype word. Everyone talks about a term, believing it's obvious, and in no time at all it loses its meaning. To be the best PM today you need to understand the nature and the reason-to-be of User Experience Design better than the designers themselves. After all, you are supposed to guide them to the creation of the best product possible.

Let's start with the definition then:

User Experience Design (*abbreviation UX, UXD*) – A discipline focused on designing the end-to-end experience of a certain product. To design an experience means to plan and act upon a certain set of actions, which should result in a planned change in the behaviour of a target group (when interacting with a product).

A UX designer's work should always be derived from people's problems and aim at finding a pleasurable, seductive, inspiring solution. The results

of this work should always be measurable through metrics describing user behaviour. UX designers use knowledge and methods that originate from psychology, anthropology, sociology, computer science, graphic design, industrial design and cognitive science.

You now know that UX is not about prototyping, is not about visual design, is not about research. UX is broader than that. **User Experience is about the creation of efficient and pleasurable products based on knowledge about human behavior and emotions.**

That's why I'm always saying that User Experience Design lies at the crossroads of art and science and requires both extremely acute analytical thinking and creativity.

To better understand the nature of User Experience Design let's consider an example: we're about to create a door handle. Your usability specialist's task would be to make sure that the person faced with the need to open doors will be able to perform the task using your newly designed door handle. He/she would conduct a series of user tests and iterate on the best solution. The UX designer would not only be interested in a usable door handle. He/she would like to create something that will encourage people to open doors and will provide a unique experience. You want people to open doors twice as enthusiastically as before. Again, the final product will be achieved in a series of iterations, but the approach would be broader and the measured results will be focused on the user's behaviour.

User Experience Design at its heart is an optimization: an iteratively improved solution to a general problem. UX is the air successful products

breathe.

The best Product Managers in the Age of User Experience Design

Now that we've proved that today User Experience Design is the center of the Tech universe and we've discussed what that exactly means - it's about time to check how it all refers to the Product Manager's role in an organization.

Product Managers, on a general level, have just one major task: **making sure things happen**. PMs have to be crazily good facilitators that help people to reach their potential in building the best products possible.

The difference between "today" and "yesterday" is simple: today the only way of achieving a great product is *through* a great design. **For your consumers your design is your product and your job is to make sure the product will provide a stunning experience.**

It's not enough anymore to define the scope of the project, create a schedule, set daily meetings... **today, to be a great Product Manager, you need to sell your team the vision that there's nothing more important than User Experience and that each and every member of the team can make it or break it.** Only a group of people with different perspectives and knowledge about users can reach to the stars and create a stunning product. The Product Manager should take care of communication between these experts to make their work matter.

So what distinguishes the top 1% of Product Managers from the top 10% in the Age of User Experience Design? The best Product Managers today:

Value User Experience Design

The best PMs today understand that there's nothing more important than crafting a great experience for customers. User Experience Design is the job of the whole team guided by the Product Manager.

Understand customers

The best PMs truly understand their customers. Talking to customers, actively participating in usability testing, researching - today that's not only the job of a UX Designer/Researcher. A Product Manager has to absolutely understand customers and help his/her team build a great product based on this knowledge.

Craft the vision

Great Product Managers thoughtfully craft the vision for the whole product. More importantly, they can take a complex vision, simplify it, and communicate it - making it easy for people to understand and relate to.

Facilitate communication

Great PMs are amazing communicators. They connect dots in the team to draw lines in the product. They know how to talk to people and they're not afraid of even the toughest conversations. They ask "Why, Who cares & So what?" and help everyone in their team to understand what the road to a great product is like.

Understand the whole

The best Product Managers understand the whole. They're able to magi-

cally review the product from afar to see how it fits the big vision. They're unicorns that have a strong background in many fields. Design, Marketing, Engineering, Statistics, Sociology, Psychology, History & so on. Always curious and eager to understand, learn and share their view of things.

Are leaders of multidisciplinary teams

Product Managers have to be great leaders. What does this mean? They make everyone around them better. They inspire, guide and mentor with one clear goal: the product must deliver an unmatched experience for consumers.

Build relationships that matter

Product Managers are probably the most “human humans” in every team. They care for people and they’re eager to build strong relationships. The best among PMs are absolutely honest. They don’t build relationships for the sake of meeting the deadline. They really care.

In the Age of User Experience Product Managers are more important than ever. In this experience-centric world that actually understands the value of a great product, the bar is higher than ever and only great PMs can help the whole team jump high above it.

The top PMs are setting new records.

3. PRODUCT MANAGER AND UX DESIGNER - WHAT'S THE DIFFERENCE?

Winning products are created by visionary, multidisciplinary teams that are able to deliver a stunning experience. Those who have mastered the magic of crafting the user experience are able to smash their weaker competitors.

Sounds pompous, but it's widely recognized as the undeniable truth. When I was in Silicon Valley for the first time, showing people my idea for the company that will change the world (and it does!) - [UXPin](#) and I introduced myself as a UX Designer they said "UX Designer? Where have you been? The whole Valley is looking for people like you". User Experience Designers were and still are employees in high demand for any tech company - no matter how big or how small. The Tech world cannot live without us.

And yes, it's just like fashion, but at the same time this is perfectly reasonable. Today, User Experience Design is often associated with efficient, smart and beautiful products. Products that are simply well designed. This is exactly what the market wants to pay for. This is why Apple became

such an important company. This is why Instagram is worth so much. And so on.



Photo credits

This culture-creation task is usually handled either by a User Experience Designer or somebody who's fulfilling the role of Product Manager (in small startups that's often one of the founders). Why? Because design oriented culture can only be created by people who understand users and understand the product. While the culture of a organization is the sum of the people in the team, the task of forming and pushing it towards an experience-centered creation should be the specific task of people who fully understand the issue.

And if you think about a Product Manager's role (in general) and a User Experience Designer's role, you'll notice that somehow they overlap. Gathering knowledge on user behavior and guiding the development of the product is something that certainly links both roles. And although UX Designers are more on the 'craft' side and PMs are rather considered with the 'management', both roles can, if not clearly divided, be in unfortunate opposition to each other. That's a situation that always hurts the product.

I've seen it happen, years ago when I was a UX designer in one of the companies I used to work for. A senior UI designer was in a constant battle with the Product Director. They couldn't agree on anything and they didn't respect each other's competencies. Why? Because they were scared to lose ground in the organization. Both wanted to be in charge of product development. Both wanted to deliver an absolutely stunning product. Both thought that their opponent doesn't understand his own role.

The Product Director thought the UI Designer should shut up and simply draw the interface based on his wireframes. The UI Designer thought that the Product Director should mainly deal with *boring spreadsheets* and shouldn't stick his nose in product development.

This kind of unfortunate fight between Product Manager and UI Designer is nothing unusual. It often happens because both roles have the exact same goal – to do everything that they can to create an excellent product with an amazing user experience design.

The same goal and overlapping competencies - that seems to be the recipe for a catastrophe, right? I assure you that this problem can be solved. This complicated relationship might be taken care of in three different

ways:

- Hiring just a Product Manager and dividing the role of UX designer between him/her and a graphic designer
- Hiring just a UX Designer and giving him/her the competencies of a Product Manager
- Clearly defining the role of both and teaching them how to cooperate

None of these scenarios is purely good or bad. They all work under certain conditions. To understand which of them works then let's first consider the common ground of both roles - the practice of User Experience Design.

Product Manager vs. UX Designer

I always advocate in favor of a broad definition of the practice of User Experience Design. One that contains not only UI design, but a whole set of activities that lead to the creation of a great product.

Here's the definition from my recent ebook [UX Design for Startups](#):

"User experience design (abbreviation UX, UXD) – A discipline focused on designing the end-to-end experience of a certain product. To design an experience means to plan and act upon a certain set of actions, which should result in a planned change in the behaviour of a target group (when interacting with a product).

A UX designer's work should always be derived from people's problems and aim at finding a pleasurable, seductive, inspiring solution. The results of that work should always be measurable through metrics describing user behaviour. UX designers use knowledge and methods that originate from psychology, anthropology, sociology, computer science, graphic design, industrial design and cognitive science.

When you're designing an experience, you are in fact planning a change in the behaviour of your target group. You've found out their problem and you're trying to destroy the burden using design methods.

User experience lies at the crossroads of art and science and requires both extremely acute analytical thinking and creativity.”

Planning, measuring, building, validating – that's a pretty broad set of actions, but this is what, I believe, must be done to create a stunning UX Design.

As you can clearly see UX exceeds prototyping and wireframing and is more of a product development strategy. In fact, I've heard from a couple of well respected UX Designers that currently Product Development and User Experience Design are almost the same and in the lean future they actually should become the same. UX Designers are expected to understand business objectives (couldn't agree more!), be really team-oriented (collaboration is crucial!) and guide the product through iterations (we should be great at measuring behavior and acting upon results!).

This scenario suggests a unification of the roles of PM and UX Designer. That's a possibility, but not necessarily a probability for all kinds of compa-

nies and all kinds of projects.

Let's go through it step by step.

UX Designer - the lone ranger

In certain kinds of organizations a UX Designer might be the Product Leader, who combines business, design and team-leading competencies.

A UX Designer stays constantly motivated to fight for the good of users, since she/he knows the most about their problems and knows how to embody the solution for these user problems in the interface of a product.

For small startupish teams a UX designer and a Product Manager can be the same person. A UX designer should have a very good understanding of business goals, user needs and should be focused on delivering an amazing product. The product is created through ongoing, efficient collaboration with other specialists.

If there's not a lot of dealing with stakeholders, marketing is done guerrilla style, sales are limited to simple activities, the financial side of the product is rather obvious, strategy doesn't need to be adjusted to corporate strategy, etc. and there's no need to bring on board an additional person.

A small team can deal with most of the problems on their own. In fact, this is how we used to work at UXPin in the early days. I was working both as a UX designer (research, prototyping, usability studies...) and Product Manager (scope planning, customer development, execution...). Honestly,

it was quite efficient in a tiny team of 4, but absolutely not acceptable in a company of 20 people.

Product Manager - the product leader

I've seen many startups and, unfortunately, some bigger companies, that were doing OK without a UX Designer on board. The more the PM in the company was on the product and less on the *manager* side, the better the product was.

Why? If you don't have a UX Designer on board, you absolutely need a Product Manager who wants to work with customers, is obsessed with good design and knows how to push the culture in the right place.

In this scenario the design tasks are fully handled by the graphic designer, who can only succeed if he/she is working closely with the PM.

Again this is rather a temporary solution for a small team. Soon the speed of work, ambitions of the team and the need to grow, will force you to hire a full-time UX Designer and do things properly.

UX & PM - the design duet

Finally, if you're lucky enough to work in a mature organization, you probably have both UX Designers and Product Managers on board. The chance is that you'll be able to super-efficiently craft the best design in the world, while the organization will be transforming itself into an experience-cen-

tered machine that grows thanks to the accelerating satisfaction of users. The biggest challenge is to build a design duet that will be working together to create a stunning product. To do that you need to clearly divide both roles.

The division that works excellently for [UXPin](#) and a couple of other companies is as follows:

- UX Designers - embody the vision of the company in the interface based on knowledge of user behavior while always bearing in mind business objectives. A UX Designer is focused on assessing the experience of users, discussing a possible solution to their problems and designing it as a result of discussion with the team
- Product Managers - are masters of execution, who are obsessed with shipping the perfect product with the perfect timing. They facilitate cooperation between people with different skills. PMs help to translate user problems and requirements into tasks. They support the User Experience Designer's work and emphasize its importance

Both roles are closely connected to the product, but UX Designers work on the expression of the idea, while Product Managers optimize the execution of the idea.

Having great people in both roles - that's the idea of product team heaven.

4. THE BATTLE OF THE PRODUCT: COMMUNICATION IN THE DESIGN PROCESS

So you want to build a great product. Something that people will be obsessed with. Something that people will love. But are you obsessed with those people? Do you love them? The energy of a great product won't generate itself.

I might sound like a madcap, but in reality those are the questions that are extremely crucial for the whole product development process and you'd better take them seriously. That's my friendly advice. Without obsession and love, the user experience design will be lukewarm at best and the success of the product will be in question.

UXPin as a product and as a company is the result of pure obsession with the problems of the user experience design process and love of the design.

But that's more of a starting point than the road itself. You know that products don't grow on trees. Even the best apple if not placed in the context of eating or as a part of a recipe for a delicious apple cake, will be pain-

fully meaningless. And the apple itself won't even be close to the desired level of tastiness if somebody doesn't spend quite a lot of time nurturing it.

I bet that in a professional apple orchard a whole team of people is working on the apple tree so it will be able to reach its full potential - giving the best fruit in the world.

Oh yes. There's no great user experience without love and obsession. There's no efficient product development today without multidisciplinary teams. And there's no great multidisciplinary team without outstanding communication in the design process. Communication that is planned and brutally executed throughout the design process.

And no, it's not easy. In fact it's far from easy. A design usually generates extreme emotions. After all that's something that everyone can refer to. It's tangible, it's facing you and it seems to be obvious. That's an explosive mixture that must be properly handled. And that's exactly the job of a Product Manager.

As a Product Manager your goal will be to:

- Spread the design-centered culture across the organization
- Optimize the design process through facilitating proper communication
- Include and engage each and every team member in the design process

Let's try to understand how to do it.

The rules, the rules are on fire

RULES AND REGULATIONS

Adopted by the Local United States Food Administration for the season of 1918, pertaining to the harvest and threshing of grain.

RULE I.
That the local U. S. Food Administration designate the man in charge of each threshing machine operating to act as their agent, to see that all ways and means be observed, so as to prevent the waste of grain in any manner.

RULE II.
It shall be in his power to direct all men who are working about the machine or on the job of threshing, and see that they give efficient service, and in any event any one is negligent he shall be reported to the United States Food Administration, who deals with according to the rules laid down by the Government.

RULE III.
It shall be the imperative duty of every man in charge of a threshing machine to see that his machine is in perfect running order before he shall attempt to do any work at threshing and in case he is unable to correct its defects, he is allowed the privilege of seeking aid of the U. S. Food Administrator who will rectify his trouble and the manufacturer of his machine, and get his troubles adjusted.

RULE IV.
As it is an order to save grain, the man in charge of the machine and farmer are to arrange to have a man to attend to the cleaning up around the machine, and help where needed, to keep the machine running correctly, and not allow bundles to be run over by teams and wagon; also it is recommended that they have a team of horses and a sufficient number of racks to haul bundles on, which will be built with tight floor and a 2 x 4 around edge for the express purpose to save grain.

RULE V.
It is also demanded of the managers of threshing machines to provide canvas, size not less than 10 x 14, to be put under the feed of the machine and to avoid all leaks; and the men who are pitching to the machine must observe these rules:

1. That bundles must be pitched head first into the machine which is the correct way of feeding a machine. Also the bundles must be pitched at a uniform speed, and in no case pile them upon the feeder.
2. That the demand is made by the Government that the fall wheat and rye shall be threshed first. Strip wheat wheat to be threshed at time of threshing oats.
3. In regard to time for a day's work, we would recommend that as the Government asks us to save all the grain possible, we think it advisable to use all the day time that is available and it shall be expected that the men will labor from 6 a.m. to the best hours of the day, owing to the morning's dampness and the difficulty in doing good work in the early morning, we would recommend that the hour of quitting shall not be before 7 p. m., new time.

RULE VI.
It shall be the duty of the machine man to avoid all waste for the following reasons:

- A. Threshing grain when it is tough (damp and unripened.)
- B. Loss from shattering in bundle wagons.
- C. Carelessness in keeping threshing cylinder up to speed, and in adjustment of blower, etc., dull and bent teeth.

RULE VII.—Pertaining to Farmers.
It shall be the duty of the farmer to see that all wagon boxes are tight. Also to see that there is no waste at the bins due from scooping and at the machine while changing the canvas from one wagon to another. We would recommend that if it is impossible to raise the grain head before the finish of the wheat threshing, it be raked after, and threshed on the return of the machine for the oats threshing, also to see that no grain is left by the man who pitches on the shocks. "Always scrape up after each shock and pick up all bundles lost or dropped from wagons by the wayside."

Every effort should be given with the object of getting the grain into proper channels of trade and not permit no great a percentage to be distributed upon the ground or into the straw pile to be fed later to the stock on the farm. The practice of overlooking the leaks with the excuse that the stock will get the benefit when turned in, should be discouraged this year, when no wheat should be fed to animals.

Suggestions and mention of instances where wastes during threshing has occurred in the past will be appreciated.

We are all soldiers of the Home Guard fighting to win the war, and the first duty of a soldier is to obey orders.

A. F. PADEN F. H. FAULKNER W. H. MACHIN

Threshing Committee of the U. S. Food Administr'n for Knox Co.

Photo credits

The first rule of communication in the design process is... there are no rules. Best practices may guide you, provide a starting point, give a broader context to your own situation, but will never (never!) answer all your questions and give a ready-to-implement solution.

Why?

Simple. Because communication (prepare for a painfully obvious statement) is an interpersonal process that almost entirely depends on the people that are participating in it.

If you want to optimize the design process in your team, start with careful observation of the team that will lead you to a conclusion about their communication needs. Some people require more of a conversational style and some prefer a predictable structure of communication that will leave no doubt about requirements and next steps.

Since your goal is to include and engage everyone in the design process you cannot exclude anybody from the communication. That's why crafting the communication process specifically for each team is so important.

The structure that I'll present below is something that just recently started to work for [UXPin](#). It still needs plenty of improvements and testing, but it seems to be going in the desired direction. Hopefully, just by reading about the process of forming communication patterns you'll have a couple of ideas about improvements for your own team.

Pre-product phase - working on the experience jigsaw

I bet most people think that the design process starts when drawing takes off. Nothing farther from the truth. The design process starts exactly when there's a decision that something in the product (or the product itself) must be done. Formulating the business objectives, the customer development process, defining the scope of a project - these are all parts of the design process, just as wireframing and prototyping are. Although this broad definition of the design process is a counterintuitive statement, it is very important to present it as such inside your team.

Explaining the connection between design, user experience and business objectives should be the foundation of your product development process. It doesn't only show how important the design is and why the whole team should care about it, but also immediately engages them in the process and that's our goal.

That's why in the pre-product phase we organize a meeting for the team at which we discuss together:

- What *the experience* goals of the project are (in other words, what we are doing for our users)
- What the business objectives of the project are (how the business should be affected)
- What we know about the problems of users and how we can improve this knowledge
- What the current scope of the project is (what we know at the very beginning that should be done)

Number three is especially important and I'd like to share a remark with you. Of course this is the part of the process when we're conjoining our analytical results, interviews with customers, knowledge from previous projects, etc. That's probably very obvious. Something non-standard that we've learnt at [UXPin](#) is that our customer service team should take an active role in every project. They know more about the problems of our users than any of us. Their role is absolutely indispensable.

In a recent project of redesigning our dashboard this pre-product phase was started by gathering all the knowledge that the customer service team

had been considering for this part of the product and grouping it into meaningful chunks. It helps us better understand what the challenges are that we're facing and the opportunities.

That's exactly why you want to engage the whole team in the design process. Suddenly, the opportunity for the success of a project grows to an enormous size.

Democratizing the design process is the way to go!

And yes - a really important thing is to start with a meeting, not an e-mail exchange. Build the communication based on a common understanding of user problems and the product development process that you want to introduce.

Communication on the run - design feedback loops

When you have the first meeting behind you, it's about time to move farther down the road. What happens now is all project-dependent. Sometimes this is the time for a usability study, sometimes some customer development work is necessary (customer interviews) and sometimes your UX Designer moves straight to the wireframing phase. One thing never changes for us. Each stage is reported to the whole team.

If we're doing the usability study, we explain why and how to the team. If we're wireframing, we share the project with them in [UXPin](#), so they'll be able to see how this part of the work gets done (thanks to our google docs like live collaboration) and they will be able to contribute to each stage.

Multidisciplinary collaboration must be constantly facilitated in the team. You want to have a team that naturally communicates within itself and deeply cares for user experience design. There's no other way to this point than through sharing the whole design work and inviting others to share their ideas.

I'll give you a personal story.

When I started my career in User Experience Design, I was convinced that the key to my success would be establishing the highest possible role of UX in the organization that I used to work for. And I was thinking about my role (damn, I must have been annoying). I was eager to fight for the good name of design with the whole developer-driven company. And I did. Unfortunately, the result was far from my expectations.

As a young and aspiring user experience designer I was a part of an IT frontend team and... my work was always fiercely questioned. No wonder that when I joined the company as the first UX Designer their world was shaken. Somebody was messing with their product development cycles! No matter whether I delivered wireframes or prototypes or results of usability testing – the developers remained unaffected. I was anxious.

They believed that technology is what matters while interfaces are a kind of ornament decorating what, for them, either way, was beautiful code. And since analytics was business-oriented (instead of being user-oriented), they didn't even know exactly what worked and what didn't in their products. I just couldn't stand it.

It took me a couple of months and lots of nervous breakdowns to realize that fighting was futile. Endless discussions over the role of design in product development weren't leading to any reasonable results, because fighting always comes up against resistance. If you instigate a fight, expect your "opponents" to defend their positions. In a company that wants to create amazing products, constant fights with other departments and specialists are just silly. Dangerously silly. They waste time that should be used for developing products to solve the real-life problems of users.

Finally, the Product Manager advised me that there's no point in fighting. The only reasonable thing is to engage engineers in the design process.

Gosh I needed a lot of time to digest that. When I finally did, we all started to work together. My friends from the frontend team were invited to participate in planning the process, advising on the interface, watching usability studies, etc.

The result for the final product was mind-blowing.

Final advice: collaborative design takes no hostages and leaves no man behind.

What does it mean? It's quite simple:

- You won't take any hostages if you ensure that you convince people that they are needed in the design process even if they are not designers.
- You won't leave any men behind if you welcome everybody in the process. And yes I actually mean everybody.

As a Product Manager it's your responsibility to facilitate open collaboration in the design process and constant knowledge sharing.

The Decision Day - final frontier

Finally, at the end of the project you will face **The Decision Day** - a day in which the whole team must decide to go with one option or another. To launch, or not to launch, to pivot or not to pivot, etc.

That's the day on which you're pushing the ship into new directions.

The easy way is to decide on your own, ask people to do that and wait for the results. The hard way is to, one more time, play with teamwork.

The way we do it at [UXPin](#) - the team sets the final frontier for the project. The team must review the whole project and answer one question asked by our Product Manager - is this the best thing that we could do? If all are in favor, we ship the code to production.

That admiration of quality and of achieving our personal record of great user experience - lays at the heart of the whole product development process. Great products are created by great teams with great leaders.

Spreading the design-centered culture

In today's design-oriented world, great Product Managers are fighting for process efficiency. The road to efficiency goes through the collaboration of

people with different perspectives and experience in one multidisciplinary team.

As a PM your deepest concern should be to make great user experience design possible for each project (in the short term) and for the whole product (in the long term).

If you consequentially enhance communication and collaboration in the design process, your projects will not only attain better results in less time, but also the whole company will reach the much desired level of a design-centered culture.

This culture cannot be artificially built. It must be a result of constant care for the product.

5. WIREFRAMING AND PROTOTYPING FOR PRODUCT MANAGERS

Product Managers' skills are usually perceived as soft - organizing meetings and other procedures, motivating the team, telling stories about the vision... - that's the usual image of a PM. An image that is terribly inaccurate. Why? It's built on the wrong assumption that a group of skills can describe such an important role in the organization. Instead of a skills-centered job description, I'd rather advise you to use a goal-centered one.

The goal-centered description of a Product Manager focuses on the result of the work of the whole team. And the goal is clear – the creation of the perfect product.

Bearing that in mind, you should understand that your job as a Product Manager isn't to organize meetings and throw procedures at your team. **Your job is to do whatever it takes to build a magnificent product.**

Though it might seem to be wordplay it's actually a crucial change of a paradigm. If you see a PM's job through this goal-oriented perspective you won't feel tied to soft skills. In fact, I strongly believe that you shouldn't feel tied to them.

A Product Manager is a fully capable member of the product team and as such should have equal rights to engage in the design process. Design reviews, testing, usability studies and even prototyping - these are all activities that can and perhaps should be done in cooperation with PMs.

That's why in the following paragraphs I want to guide you through prototyping and wireframing, so you'll be able to join your UX Designer and work on a product together.

Get ready for some practical knowledge!

Prototypes, Wireframes, Mockups - what's the difference?

Before we go to tips&tricks for prototyping and related design techniques that you as PM can engage in, let's explain a couple of issues related to important terms and definitions.

User Experience Design, just as any tech field, has its own dictionary that outside of the UX world is simply confusing. Most non-UX folks and, unfortunately, some UX designers that I've met during my career didn't understand the difference between a prototype, wireframe and mockup. And yes...there's actually a substantial difference between them.

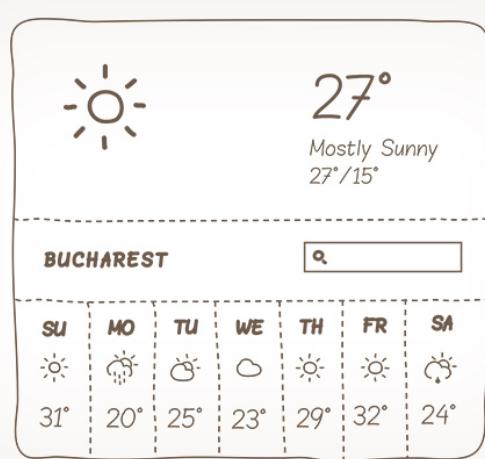
Let's dig into that so you'll be able to easily communicate with your UX Designers.

What is a wireframe?

A wireframe is a low fidelity representation of a design. It should clearly show:

- The main groups of content (what?)
- The structure of information (where?)
- A description and basic visualization of the user – interface interaction (how?)

Wireframes are not just meaningless sets of grey boxes, though they may look exactly like that. Consider them as the backbone of your design and remember that wireframes should contain a representation of every important piece of the final product.



"Representation" is a crucial term here, which will help you find the right fidelity – speed balance. You can't go into too many details, but on the other hand, you need to create a solid representation of the final design that won't miss out any important piece of it. You're setting a path for the whole project and for the people that are working with you (developers, visual designers, copywriters, project managers – they all need well-created wireframes). In fact you're creating a map of a city. Every street is represented on a map, but it's vastly simplified. You can sense the architecture of the city if you look on a map, but you can't perceive its beauty.

Wireframes should be created quickly and almost the whole time should be spent communicating with team members and...thinking. The mere activity of wireframe creation should be really quick.

Visualization should be aesthetic, but this is vastly simplified. Black-grey-white are the typical colors you'll use (you may add blue to specify links). If something takes too much time to prepare (e.g. choice of icons, uploading images), you have to represent it in a simplified way (e.g. using placeholders – crossed rectangles for images, plus an appropriate description). We tend to call wireframes low-fidelity deliverables (lo-fi).

Remember – a well-created wireframe communicates design in a crystal clear way and sets a path for the whole team.

Wireframes are typically used as the documentation of a project. Since they are static and fix interaction with an interface at a specific point in time, they should be accompanied by the written word (from short notes explaining interaction to, when needed, complex technical documentation).

However, they might also be used in a less formal way. Since they are quick and simple in form, they serve well as clear sketches for inner communication in the team. If developers ask how something should be done – the answer can be provided as a rapidly created wireframe.

Consider this: [UXPin](#) is a start-up with really rapid development cycles (releases every couple of days). We use wireframes to quickly visualize tasks (even small ones!). It eliminates misunderstandings and is really cheap.

Wireframes are hardly used as a testing material, although they may help to gather feedback in initial, guerrilla-style, research, in which you don't care about methodological purity, but rather try to get some quick insights.

Wireframes placed in the context of the whole design story can be surprisingly effective and, though in recent years they've received some bad press, are still indispensable as an initial stage of complex projects.

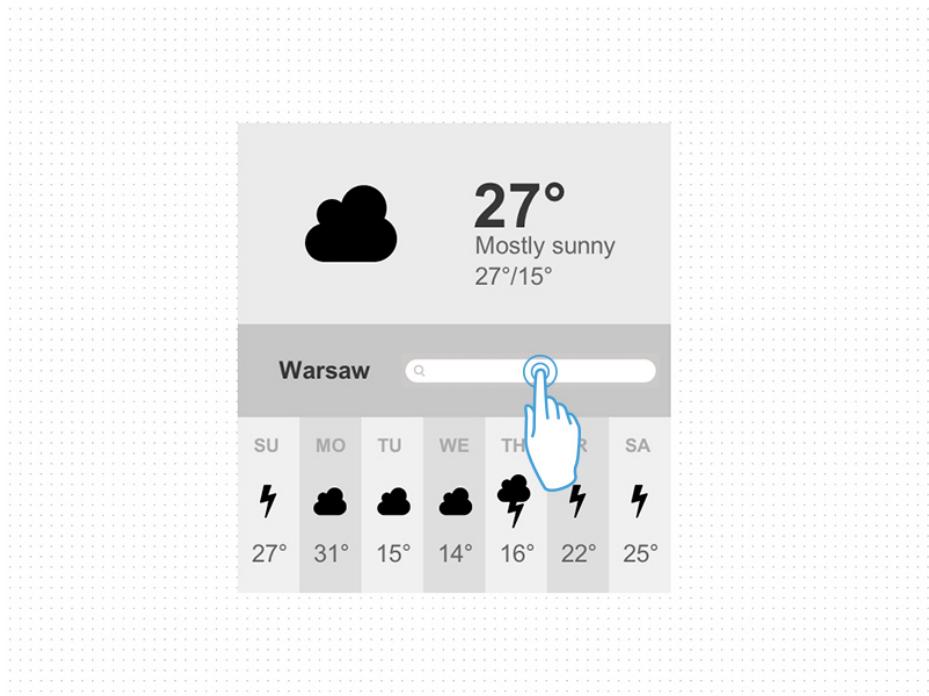
What is a prototype?

A prototype, often confused with a wireframe, is a middle-to-high fidelity representation of the final product, which simulates user interface interaction. It should allow the user to:

- Experience content and interactions with the interface
- Test the main interactions in a way similar to the final product

A prototype is a simulation of the final interaction between the user and

the interface. It might not look exactly like the final product, but should be vastly similar (it's definitely not a greyish, sketchy thing). Interactions should be modeled with care and have a significant resemblance to the final experience. Interdependence between the interface and backend mechanisms is often omitted to reduce costs and speed up development cycles.



Prototypes are used to their full potential in user testing. Such a simulation of the final interactions forms great material to check the usability of the interface, before the development actually begins.

Prototypes usually aren't the best documentation you can imagine, since they force the "reader" to take some effort to understand the interface. On

the other hand, a prototype is the most engaging form of design documentation as the interface is tangible and straightforward.

With e.g. [UXPin](#) you can quickly model interaction, create a prototype and share it with people, as well as do the proper usability study.

What is a mockup?

A mockup is a middle-to-high fidelity, static, design representation. Very often a mockup is a visual design draft, or even the actual visual design. A well created mockup:

- Represents the structure of information, visualizes the content and demonstrates the basic functionalities in a static way
- Encourages people to actually review the visual side of the project

Mockups are often confused with wireframes, due to the names of some software companies.

Mockups are particularly useful if you want to get early buy-in from a stakeholder. Thanks to their visual nature, mockups don't have the resistance of the low fidelity deliverables and are much quicker to create than prototypes. They are a good feedback-gatherer and, if placed in the context of the whole design story, can form a great chapter of documentation.



The Product Manager in the world of UX deliverables

In most cases, a Product Manager engages in the creation of wireframes and mid-fidelity prototypes. Since neither of them require art-related talent, but rather knowledge about user behavior, PMs can easily join their teammates in the process of creation to add their unique perspective.

Using e.g. [UXPin](#) - collaborative design application you can work together with your UX Designers. You can virtually meet in the application and exchange your ideas for the interface. Working together in real time builds a much desired atmosphere of collaboration. Just be careful and always give people arguments for your design solutions, while never trying to force

your opinion on them.

Contrary to popular belief, low-fidelity deliverables (wireframes) are harder to properly craft than mid-fidelity ones (prototypes). While prototypes will usually take more time (adding interactions to elements of the interface always needs some work), wireframes are easier to spoil through misunderstandings about this form of design expression.

I've seen Product Managers making so many mistakes in the wireframing process that were hurting the communication between them and the rest of the team, that I wish I could have got a couple of cents for each one. Putting either too many details in a wireframe, or too few - is a dangerous failure of form that unfortunately might affect the whole design process.

Go with me through 5 rules of wireframing that hopefully will help you protect yourself from some unfortunate errors.

1. Eliminate all the distractors

Crystal clear communication may be achieved only if we eliminate the distractors.

What's a distractor in a wireframe?

- Inappropriate color use
- Wrongly applied level of fidelity
- Ugly images and icons
- Comic Sans and any strange font
- Any signs and codes that only you can understand

- ...and actually anything which keeps your readers far from understanding your design concept. To cut it short: No ornaments allowed, keep only the essentials on board.

Consider this story: one of the UX Designers that I know used abbreviations on every placeholder (a crossed rectangle) to mark what type of image he was expecting. This had a certain meaning to him, but couldn't be understood by any outsiders.

Is it ok to use such secret signs just for yourself? No, not if you're going to share this documentation with your team and clients. These abbreviations distracted readers and disturbed their perception of the design.

2. Use colors carefully

There's a lot of misunderstandings when considering colors. Should wireframes be a black & white only, visually harsh, set of boxes? Or should they perhaps be colorful endeavors to suggest the visual design?

Neither. Why? Because neither black&white nor rainbowish things, can clearly communicate the design. I'd rather suggest that you follow these simple rules:

- Use shades of grey for the wireframe structure of the interface and the content,
- Visually suggest a hierarchy and set an order in your wireframe by using different shades of grey,
- Always set any images and icons to grey (you don't want them to visually stand out),
- Use an appropriate contrast between elements (especially in the case

- of text – it must be readable!),
- You may use blue for links, red boxes for alerts, green boxes for confirmations, blue boxes for information and yellow for warnings (it's especially important in forms; the color of validation messages matters a lot and by setting the appropriate hue, you're letting your team know about its importance),
 - Avoid black – black borders make your wireframe messy, cluttered and really boxy – in some cases this might be a distractor.

3. Don't over-design it

Over-designing wireframes is a common mistake. You must remember that you're trying to communicate design ideas in a simplified, clear and fast way. Don't get too fancy.

Spending hours crafting an element of the interface only because it doesn't look good on a wireframe is a waste of time. Whenever you face a dilemma as to whether a certain element is ready or not, ask yourself:

- Does it make sense in the context of user scenarios of this particular product?
- Does it clearly communicate its sense and value?
- Will your teammates understand it?

Don't ask yourself if it's pretty; ask if it's clear and reasonable.

4. Use real sizes (approximately)

You have to set a real size canvas for your design (e.g. if the width of the

web application is 980px, you should wireframe on a 980px canvas) and wireframe all elements of the interface in a proportional way.

Why? It would be way too easy to place a lot of broad elements on 1200px, while the visual designers would be forced to squeeze them into 980px. You must be aware of constraints. Using imaginary sizes on your wireframes is a direct route to product development disaster. Don't risk designing something that is unreal.

5. Affordances matter!

Back in 1988 the father of User Experience Design, Don Norman, used a psychological term coined by James Gibson - affordances, to describe the possible actions suggested by a thing that are perceived by human beings. Buttons in software interfaces look like they're designed to be pushed; tabs suggest the act of switching between chunks of content; inputs suggest typing in, etc.

To clearly communicate your ideas – your buttons must look like buttons, tabs like tabs, inputs like inputs... I would even risk saying that affordances matter in the final product just as much as in the wireframe. In the final product, they suggest a certain action, in the wireframe, a certain meaning.

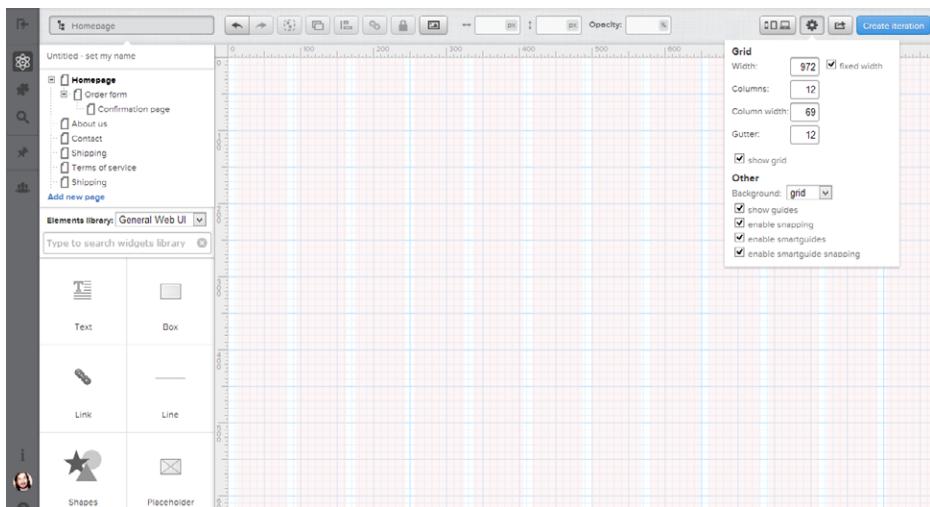
Affordances will let your wireframes speak properly.

Practice your design skills now!

Design, just as any skill needs lots of practice. Wireframing & prototyping, though they might look easy, have their own rules that you need to learn through putting them into practice.

Let's imagine that you and your team are working on a simple eCommerce landing page. You have your own ideas on how it should look and work alike and you'd like to present them to the team as an optional way to go.

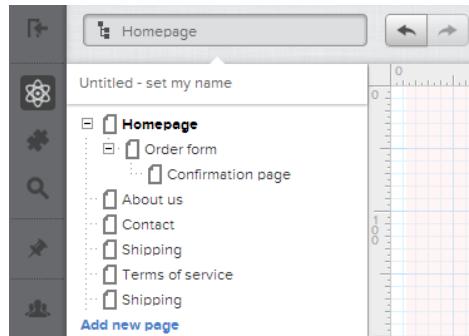
1. Prepare the canvas first. Set your grid and the width of the website. It will give you a proper perspective of the project and its visual constraints. 980px is a pretty standard width of a website nowadays. I also set up a classic 12-column grid to help me get UI elements aligned, but consider it optional.



2. Plan the architecture of the site and create a sitemap. From conversa-

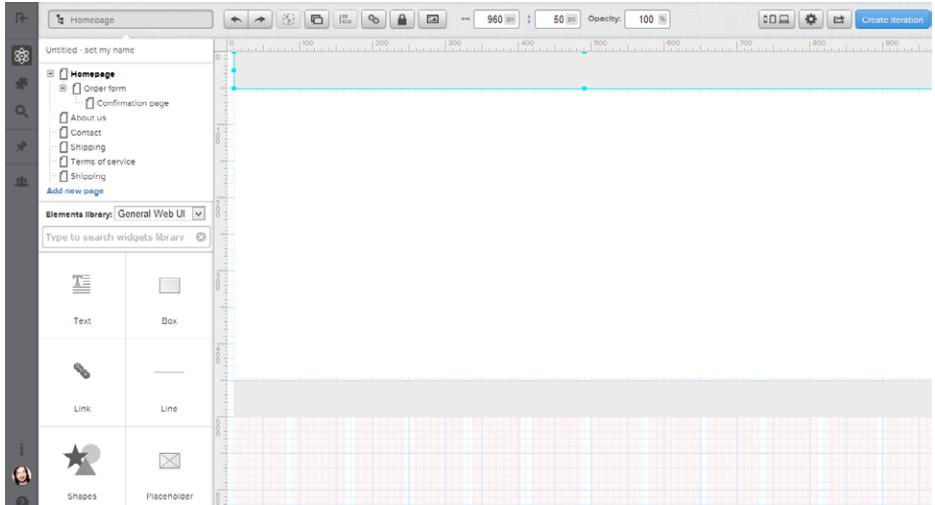
tion with your client and your user story, you know that on this simple landing page there should be:

- A main page with descriptive content,
- A cart page,
- An order form,
- A confirmation page,
- A shipping page explaining all the delivery details,
- A contact page, about us,
- A terms of service page.

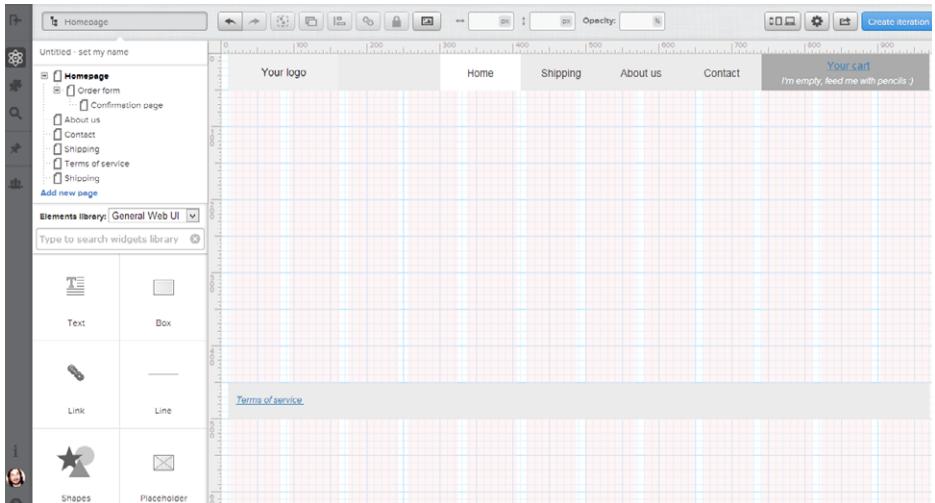


Create all the pages and form a simple sitemap by adding new pages in the wireframe editor. Then drag and drop them till they represent a hierarchy of your site.

3. Plan the main structure of your first site. You decided to go with navigation at the top. Draw a box for the main content and a footer. You have the basic layout ready to fill in with your creativity.

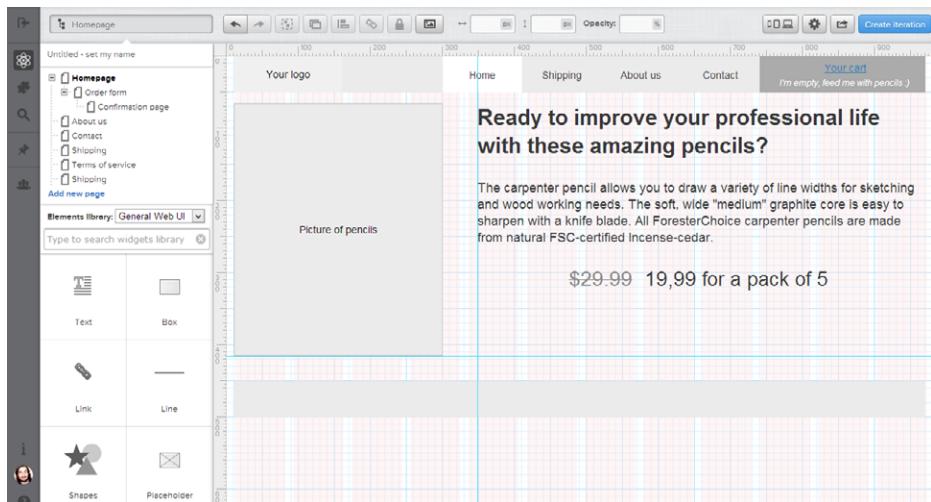


4. Create the navigation. Start with the top menu. Make sure that the page we're on right now (home page) is visually marked with a white background to avoid the user's confusion. Your cart and Terms of Service are also important parts of the navigation.



I used blue and underline to clearly communicate that these elements should link to specific pages (you can actually link them and the whole navigation straight away to reuse these elements later on). I also used different shades of grey to mark the visual hierarchy in a nice aesthetic way.

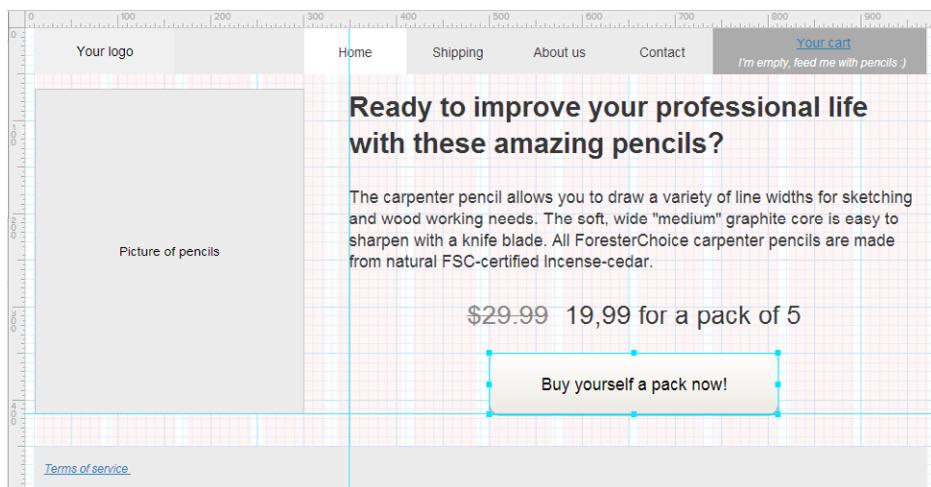
5. Set up the main content chunks. Keep it real with content that will be actually used on the site. It gives you the right perspective and shows the constraints. This also makes quick guerrilla tests much easier.



Bear in mind that the aesthetic part of the wireframe plays an important role here. It can't be mistaken with the visual design, but it looks professional. The visual hierarchy is clearly visible through shades of grey. Humble typography doesn't distract readers. I used a grid and guides to keep the elements aligned.

Final refinements. To finally refine this simple wireframe I added a but-

ton with a clear affordance. It actually looks like a button and suggests pushing it in. Link it to the cart page to make it easier for your readers to understand simple interactions.



You may also add a couple of project notes (bottom right) to add a description for developers. It will make the communication of this wireframe even clearer.

Wireframing, Prototyping and Communication

You should always remember that wireframes and prototypes are communication tools. To clearly communicate design ideas is their main objective.

You're drawing a wireframe in [UXPin](#) to tell the team what are you thinking about a certain solution of a certain user's problem. You could probably try to describe that in words, but as we all know an image is worth a thousand words.

Whenever you want to fight over a piece of a wireframe, remember that you designed it to communicate the idea, not start a battle for your position in the organization.

Chill out and enjoy the journey to a great product.

6. CUST DEV AND USABILITY STUDIES FOR PRODUCT MANAGERS

User experience design is deeply human-centric - it dies without a decent amount of interaction between human beings. Human interactions inside the team and outside it are absolutely crucial for the process of product development. Products cease to exist when people inside the team refuse to talk to each other and when the team doesn't talk to people outside itself - the customers.

While usually Product Managers understand the value of efficient communication in the team, I've met just a few that were actually aware of the importance of communication with customers.

Just think - when was the last time you actually talked to users? And I mean talking in an organized way, with a clear goal and the script in mind. This kind of a systematic approach to customer-team conversation may lead the team to a great success, yet it's vastly omitted even by experienced PMs.

Why?

That's simple. It's really easy to sit inside the office and generate new ideas. It's much harder to go outside the building and confront those ideas with real customers in the real world. There's great effort and great ego-related danger in facing the customers with your just-done prototype.

Believe me, I'm not trying to admonish you. I know how hard it is to actually force yourself and the whole team to do some solid customer development and usability testing. We all tend to be lazy. Laziness, unfortunately, is unacceptable on the path to a great product. Users and competitors don't show any mercy to those who choose easy paths.

Great Product Managers are great leaders that are not afraid to lead their team to success through efficient, though unpopular, roads. The Customer Development Process and Usability Testing are among them. As a Product Manager you should show the value of both and encourage your team to participate in the process. Even if they oppose you and tell you that they want to *cut to the chase* and stop *wasting time*, you should insist that only talking to customers may give you the knowledge that will be the foundation of an amazing product.

And believe me, show them the users and you'll be surprised how much they will start to care for the user experience.

The Product Manager and UX Research

There are two basic scenarios that you might find yourself in: you either have user experience designers that can run a usability testing session and oversee customer development interviews, or you don't have them.

In both cases it's your obligation to remember that each and every project should go through the important phase of having conversation with users that we can call *UX Research*.

The best UX Designers will remember about the research, but still they need your encouragement and, most probably, help to actually run the session in the project. What's more - you should want to participate in the sessions to understand customer behavior and opinion on your own. That will help you to clarify the vision of the product, force user-centered solutions and lead the product to success.

And while you don't need to be an expert in usability testing, you should be able to run a simple study and draw a conclusion from it. Research that every one of us can conduct is called Guerrilla Research. Let's try to understand it.

Guerrilla Research

Guerrilla Research methods were first used in the market research field following Jay Conrad Levinson's 1984 book "[Guerrilla Marketing](#)". Guerrilla stands for atypical, cheap and somewhat aggressive methods of achieving goals.

An example of guerrilla marketing would be graffiti or a flash mob used for promotional reasons. The crazier and more buzz-generating, the better.

In the user experience design world guerrilla methods became extremely popular after the famous book "[Don't make me think](#)" by Steve Krug, who

encouraged people to do research even if the only subject they tested their design on was their mom. That radical approach says: it's better to check your product with one person than not check it at all, argued Krug. Today we're calling such a research method "guerrilla user testing".

There was a time in my career when I strongly disagreed with Krug. I believed that only methodologically valid research led to meaningful results (no wonder, I'm kind of a statistics nerd). When I started my own company I quickly re-learnt Krug's old wisdom though. Whether the results of a study are meaningful or not depends on your definition of meaningful. And you should always do research that is the most economically valid, that is, that creates the biggest value for the least amount of money.

I believe that Product Managers are, deep at the bottom of their heart, entrepreneurs, so I bet you'll like guerrilla research as much I do.

And of course, the methodology of guerrilla user testing isn't exactly right. You can't extrapolate the results achieved by one, two, or even ten people on the whole targeted population, but it doesn't make it meaningless. It just makes it meaningful in a different way. Judge its meaning by the results it brings to your company and you'll see the benefits in a brighter light than the flaws.

Quick and dirty research is an amazing way to explore your product. You'll find out more possible problems than you ever bad-dreamed of. An additional perspective on your project is a lever that may be crucial for the whole endeavor. Each time we make a quick usability study (usually on around seven subjects) we learn so much about our own mistakes, which is just overwhelming. And bear in mind that two of the [UXPin](#) founders are

experienced UX designers.

Each tested person increases the probability of your success, so I strongly encourage you to make it your routine. After all, it's free and all you're risking is a couple of hours.

As a rule, we never stop doing the guerrilla usability testing of [UXPin](#). Talking to customers, watching them working in our application is a constant part of our product development cycles.

How to do guerrilla user testing

Reach out to your users (or any approximation of the target group)

Think about where you can find your users. The local Starbucks? Walmart? Perhaps a park? It all depends on your target group. In our case, it's easy since UXPin provides tools for anybody who's working on the User Experience Design of web and mobile applications; we just invite local UX designers to visit us in our office (it's a small community and we all know each other somehow).

Wherever they are, grab your laptop and go and talk to them. Show them what you have and check if it's usable. If finding your users is a problem (e.g. there's no cafe or shop in your neighborhood and extreme weather plus polar bears make it tough to go outside), try your neighbors. In the worst scenario use your family. Just talk to somebody! Go outside your ego and check the value of your work.

You must remember though that your closeness to subjects will affect the

feedback. Your family probably don't want to hurt you.

Prepare a testing script

This is the single most important thing while preparing a usability test. The script guides your testers and shapes the whole interaction. Plan it thoroughly thinking about specific parts of the product that you want to test.

I always prepare a short story that provides a context for research. It lets subjects use their empathy and kind of role play (like in an old-fashioned RPG). Thanks to the context, people soak up the research and the whole situation is closer to real-life.

For example, in the last research we did at [UXPin](#), we provided a brief from a client and a story out of a UX freelancer's life. It helped our subjects stay on the right track and feel the pain of the problem they were trying to solve.

The results of that research were stunning.

Get your gear ready

The one thing that's surprisingly easy to break during guerrilla usability testing is your gear. Here's my short checklist, originating from my personal list of shameful mistakes:

- Always check your screen recorder before the session
- Always use ethernet or cable network, rather than WiFi (which likes to disconnect you during a study - been there, done that).
- Check that the mouse works properly (a customer sitting on my

mouse almost ruined the research).

- Check the power source (oh yes, I've run out of power).
- Avoid any non-standard keyboard shortcuts (again custom settings on my Mac made it really awkward).
- Turn off all the unnecessary software (taking extra care with Skype and Messages).

Avoid these lame mistakes and you'll be good.

Prepare the participants

First of all, accept the fact that people may be scared of your research. Give them confidence and treat them like experts in the field. Say clearly that the results of the tasks don't matter; what matters is their opinion. Encourage them to speak aloud while performing tasks and justify this by the fact that you need to know what they're thinking while interacting with the product.

Don't let them blame themselves if something goes wrong. Let this experience be pleasurable.

Record the session

Record the screen (in the case of mobile app testing - a whole mobile), the face and voice of your research participants. It'll let you easily assess what was going on during the interaction.

Analyze the results immediately

Always take some notes during the study. Write down only catchwords, which will help you recall a specific situation and won't take too much time and attention during the test. As soon as possible after the study, change your notes into specific tasks.

In my experience - if you don't do this in the first two days after each session, you'll never do it.

Just do it

I know that to some of you it might sound like extra work. Please remember though, in the Age of User Experience Design, people are in the center of the product development process. If you ignore their opinion, they will ignore you and your product.

As a Product Manager you need to fight for the best user experience possible and this fight can be won thanks to outstanding knowledge about your customers. The knowledge that you can gather from User Experience Research.

Try it once and you'll never stop.

7. USER EXPERIENCE DESIGN TOOLS & ADDITIONAL MATERIALS FOR PRODUCT MANAGERS

Great introduction books

[J.J. Garrett, The Elements of User Experience: User-Centered Design for the Web and Beyond](#)

Norman, Design of Everyday Things

Norman, Living with Complexity

Krug, Don't Make me Think

J. Johnson, Designing with Mind in Mind

J. Gothelf, Lean UX: Applying Lean Principles to Improve User Experience

UX Design App:

[UXPin](#)

- Wireframing
- Interactive Prototyping

- Responsive wireframing/prototyping • Live collaboration
- Full project view (personas, research results etc.) • Communication in the design process
- Reviews
- Iterations

Wireframing:

- [UXPin](#)
- [Balsamiq](#)
- [Mockingbird](#)
- [Moqups \(free\)](#)
- [Mockflow](#)
- [Pencil Project \(free\)](#)

Prototyping:

- [UXPin](#)
- [Axure](#)
- [FluidUI](#)
- [Hotgloo](#)
- [iRise](#)
- [Just In Mind](#)
- [Pidoco](#)
- [Proto.io](#)
- [Protoshare](#)

Diagramming:

- [Cacoo](#)
- [Creately](#)
- [Draw.io](#)
- [Gliffy](#)
- [Omnigraffle](#)
- [Lovely Charts](#)
- [Lucid Chart](#)

Web analytics:

- [Adobe Analytics](#)
- [Google Analytics](#)
- [KissMetrics](#)
- [MixPanel](#)
- [Piwik](#)

Feedback tools:

- [GetSatisfaction](#)
- [Kampala](#)
- [Survey.io](#)
- [UsabilityTools](#)
- [UserVoice](#)
- [Qualaroo](#)
- [4Q Survey](#)

Session recording:

- [Clicktale](#)
- [GhostRec](#)
- [MouseFlow](#)
- [OpenHallway](#)
- [Tealeaf](#)
- [UsabilityTools](#)
- [UserReplay](#)

ClickTracking:

- [Clickheat](#)
- [Clicktale](#)
- [CrazyEgg](#)
- [UsabilityTools](#)
- [UserZoom](#)

Remote usability Testing:

- [BagelHint](#)
- [Chalkmark](#)
- [Ethnio](#)
- [Feedback Army](#)
- [Five Second Test](#)

- [Keynote](#)
- [Loop11](#)
- [TryMyUI](#)
- [UsabilityTools](#)
- [Usabilla](#)
- [Userlytics](#)
- [User Testing](#)

Offline usability Testing:

- [Camtasia](#)
- [MediaCam](#)
- [Morae](#)
- [Silverback](#)

A/B testing:

- [Adobe Test and Target](#)
- [Artisan](#)
- [GlobalMaxer](#)
- [Optimizely](#)
- [Visual Website Optimizer](#)