

Why we should all be **prototyping**.

We speak different languages

We do. And not different in the same sense as English and Spanish, for instance, are different. Even when speaking the same language there are times we don't understand each other properly for the simple reason that we see different meanings for the same words. And that basically happens because...

We have different backgrounds

From the early days of our elementary school through everything that is/has formed us professionally, we are very different. We see things differently as architects, engineers, and business leaders. Besides our uniqueness being the most wonderful thing in the world, this may sometime lead to communication difficulties that need to be addressed.

We are (mostly) visual beings

Most of our understanding about the surrounding environment comes through the visual senses. Why I think that is so it's because there are so many shapes, colors and combination of them, and their number is overwhelming comparing to the amount of words & concepts we use to denote them. And besides that, it's easier to spot a shape than to read and comprehend its literal description. It's far easier to take that shape and visually integrate it into a larger picture than it is to do the same thing using only your imagination.

It's faster & cheaper

To be more specific now, prototyping is by definition a very early draft version or a simulation of a yet to be built product. It only make senses to invest time and resources in prototyping only when it's cheaper and faster than building the real product. That's why, most of the time, prototyping is done in a different technology than the one used for the real product. It is important to realize that by their very definition, prototypes will represent some compromise from the final production design. Due to differences in materials, processes and design fidelity.

It can be done by non-developers

When it comes to user experience prototyping, the ones that know best how the experience should be are not necessarily the most technically skilled persons in the team. It's just as easy for non-designers/builders or even project managers to simulate experience in a environment for the sake of prototyping.

Allows more iterations in a shorter period of time

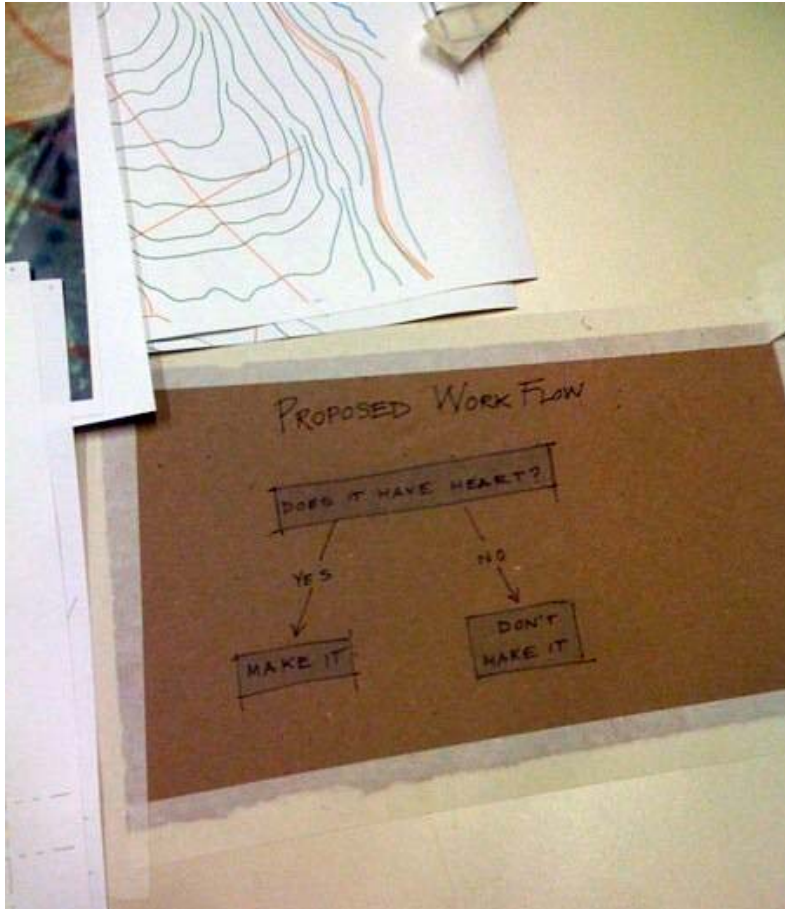
When things come together faster, it's much more easier for everyone to meet, share ideas and iterate over. This way it will be less likely that concepts and story lines diverge into separate iterations. The team takes the next step forward (or backwards) together with a clear understanding of the prototypes development.

It's better for usability testing than static one dimensional drawings & mock-ups

While simple static images linked together can help, it's far more realistic to prototype using assets that closely resemble the experience users will have when facing the real product. From simple dimensional objects to story boarding or functional prototypes the closer you are to that user experience, the more accurate your user reaction will be.

Plan your Prototype

Depending on the complexity of your project and team, gather as much information as possible and as needed before diving into prototyping. Build feature lists, do site-maps, sketch if you like (and you should like that!). Draw user work-flows and see how complicated they can get. There are many factors that will influence the structure and the content of your prototype.

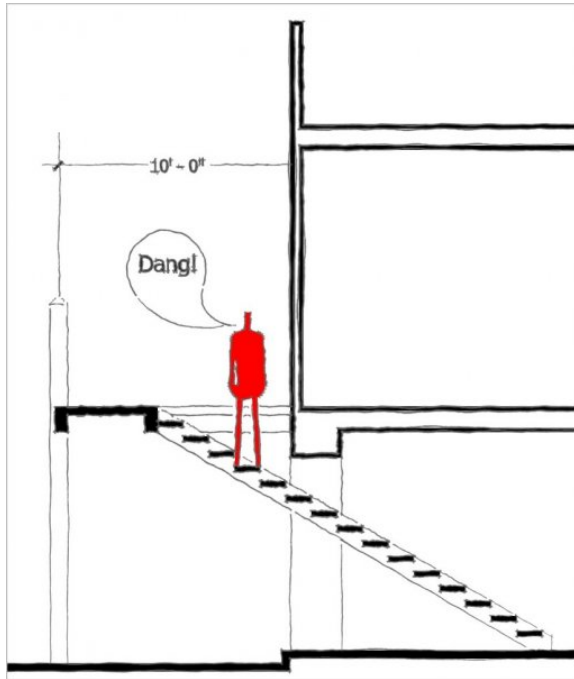


It's important to get a good feeling and image of the desired result and start to have at least a couple of alternatives in mind for the most sensitive features. There are several ways to do the same thing and it's essential to investigate as many as possible alternative paths before sticking with one of them. Start overlapping this content and experiences and let this inform what information you want your prototype to communicate. Prototypes can be built to illustrate one data group like the dimension of an object, but prototypes that communicate multiple data sets across one prototype will give a more completed story or user experience.

For instance, in Architecture. Floorplans of a building are used as a one dimensional view point of a buildings space, It's not until I overlay dimensions/wall types/materials that the space comes alive in a textual/dimensional viewpoint...but maybe only to someone in the construction industry. We need to communicate this space to the non technical, so I use a perspective to illustrate my ideas in a visual manner. I draw in 3-Dimensions and I give the space volume, I give feel/color for material types, and fixture placements. I visually connect what the space would look like as if the user was standing there.

Sketch and Draft

Prototyping is in many ways similar to sketching. It has to be interactive, thoughtful and well informative. That's why prototyping is not always the first stage in product design process. There are other less expensive ways to start visualizing things before actual prototyping.



Paper sketches are, for instance, a great way to clear your mind and to focus on the big picture. I personally find it to be very effective for me to take my notebook and then step away from the computer to take notes or draw something, either in another room or even outside.

Whenever attacking a new subject, I always find it better to first visualize the boundaries of the problem on the table. Either when it was a college exam or, later, a big building task, I always felt more comfortable by knowing upfront how far I need to go before diving into the details of a very specific subject. Even if only superficially, being aware of the existence of a particular item will most certainly make you take better decisions and be more efficient.

So be sure to make one or two drafts first. Give your prototype a first consistent shape and get feedback. Or even if you don't go in for a critique to ask for feedback with your drafts, you will at least be facing something that is starting to resemble the product and is already posing some problems: "Will this part actually fit there?" or "Aren't there too many steps to this simple task?". This type of questions arise fast when prototyping, while they may not necessarily be that obvious while sketching.

Dive into the Details

When time comes, you need to get you yourself wet and step into more and more corners of your prototype. Depending on the time-frame and initially established purpose of your prototype, the level of detail will differ. Nevertheless, make sure that you identify and address those sensitive aspects that have the most weight in your prototype. Form and Function and the above mentioned floorplan example with data layering, is something that significantly influence the structure of the prototype.

Don't look so relaxed.



What's the problem?



We're bringing clients through the office.
We need you to look industrious.
Put down your coffee cup.

I'm generating PDFs of my current drawing set.
I'm not sure how much more industrious I can look,
but would it help if I rolled up my sleeves?

That's a start.



And I'll start skipping a few
showers in the mornings.



Skip a few meals, too.
For that hungry look.

And remember that details are not necessarily only visual. The entire apparatus behind a label or a number you put on a prototype may heavily influence important planning decisions. Small details like the color, material selection etc. have their role in the story for the user.

Limit Yourself

Prototyping should be fast and cheap. A great way to maintain momentum in a project is by doing things at a constant and fast iterative pace. Prototyping is not, by any means, an exception. Spending too much time by yourself prototyping, decoupled from the rest of the team will only increase chances that the project will slightly go off track. Especially when someone else is waiting for you to deliver. Think carefully about how much you really need to put in a prototype. Half done parts will raise lots of questions. Be prepared to answer them or simply take out that part until you'll be ready to provide answers.



Improvise and be as flexible as needed to achieve the desired results faster. Even if not everything is fully functional, it'll be O.K. Just do what's required by your audience to complete the experience for them (some types of audiences will need more than others, that's true!). Remember that most of the time, prototypes are throw away artifacts. In the rare cases when you'll do functional prototypes you might just reuse some portion, but even then the prototype will quickly evolve and change. And in the end this is not the point of a prototype, it's to prove a concept..