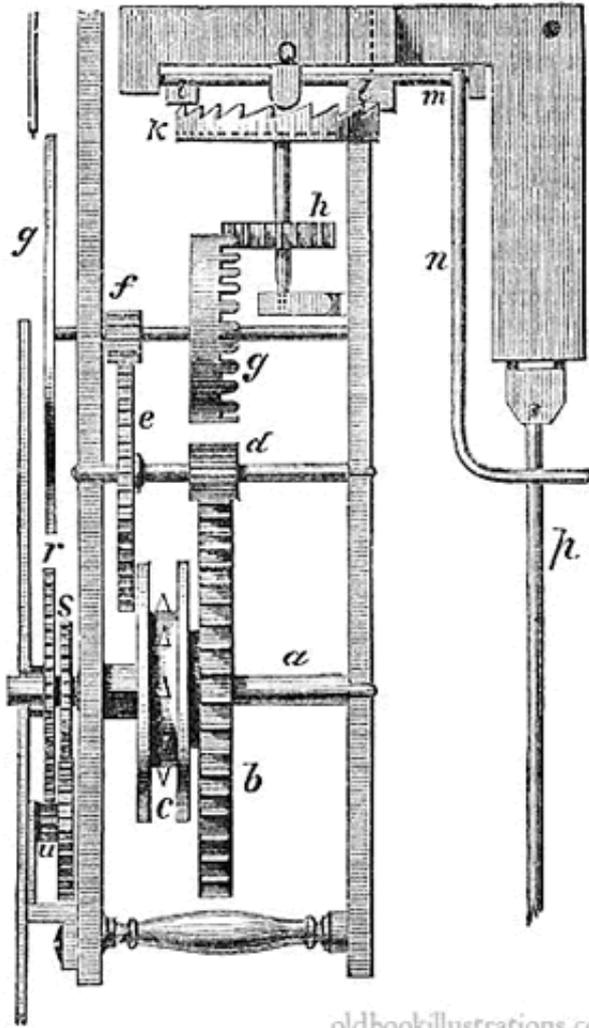# Match the Tool to the Problem

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Our guest author this week is Daniel Ritzenthaler. Dan is a web design consultant based in Boston. He makes videos about common questions he hears from clients on Design Thoughts*, and can always be reached on Twitter* @danritz*. Learn more about him at* http://wurkit.com/.

How long has it been since you've heard designers argue about which method is better: sketches, wireframes, mock-ups, or HTML prototypes?

Probably not long enough...

One designer will claim that you shouldn't do anything without sketching it out while another claims that doing anything less than full-on HTML prototypes is a waste of time. All of these tools have a special purpose so there's no point in discussing which one is better. That would be a lot like an electrician saying his wire-cutters are better than the plumber's pipe-cutters. Within the context of cutting wires it makes sense, but everywhere else it's just silly.

There is one thing all these tools have in common: they help remove layers of ambiguity within a project. Think of them more as communication tools that help you clarify and demonstrate your intentions to other designers and to your clients. Occasionally they become deliverables, but it's important to remember they can never provide the final answer.

This piece is about bringing clarity to this discussion. It will help you decide which tool to use without worrying what other designers are arguing about.

Match the tool to the problem

Sketches are usually hand-drawn graphics that contain screen ideas or explanatory graphics outlining the high-level problem or solution. They are the most valuable when the idea hasn't been fully formed, explored, or realized in any way. Sketches will help you understand what general pieces are needed to accomplish your goals.

Wire-frames tend to be computer generated graphics illustrating the organization of content, features and functionality. Prioritizing the elements of a design and determining general page layout can be a very messy part of any project. A well built wire-frame will help you pull apart the individual pieces and make sure they are appropriate to the goal of the page.

Mock-ups are rich graphics intended to simulate the look and feel of a project so you can understand the impact visual elements have on the brand. A mock-up can set the right impression and communicate emotions and personality. Without actually building the website (which a lot of people do), there really isn't any other way to concretely define what a website should look like.

HTML Prototypes are partially-complete versions of a website used to understand how pages interact with each other and flow from one area to another. More complicated interactions between sophisticated components might require a fully functional prototype to actually understand. When there are a lot of moving parts and goals have multiple steps involved, HTML prototypes can really help you find the gaps in your plans.

Let's play with a few examples

You're building a **Basic Marketing Website** and you already know the website's goal, are confident in the assumed layout, and understand how the pages interact. Jumping directly into the mock-ups will be the best use of your time. That way you can get as close to the final result as possible in the least amount of time.

It's the ninth time you've built a **Well Understood Application** and you deeply understand the goal and know how all the pages interact, but want to make it fit perfectly with your client's team. This is where wireframes really make a difference. They can help you communicate how the application is organized and identify potential ways to make the interface more intuitive.

You're starting a **Brand New Idea**, and the hardest parts are grasping the concept and determining how the pages will work together. For this to happen, you'll probably need to jump back and forth between sketching and HTML prototypes until you're confident the core purpose is captured. These initial HTML prototypes can also become great tools to illicit feedback from your team or potential customers (alpha/beta testers).

Now what?

Every project may need one or all of these tools in various order depending on the challenges you're confronted with. So the discussion shouldn't be about which tool is better or how to align them into a formal and rigid process. It should be about which one, at any given time, can give the most clarity and boost productivity.

Design Systems Need To Be Challenged

As designers, we all have processes, systems and tools that we use day in and day out. Each one employed to solve a specific problem in a specific way. As we attempt to automate our design process and optimize our methods we invariably realize that our answers are becoming more and more generic—formulaic, if you will.

As we utilize frameworks and design patterns to help us move faster, we are accepting that a certain level of our design decisions have already been made for us. And in the process, we begin to bypass the moments that, while often frustrating, lead to incredible discovery or innovation.

We tend to try and automate everything in our lives so that we can achieve more, faster. However, the power of design is its ability to make the inanimate more human. This is not something that happens when design becomes a checklist, a process or a formula. Inevitably, as the designer yields to the design system, we find ourselves faced with products that don't emotionally resonate with us as human beings.

One way to break out of this rut is to challenge yourself to solve the problem in a different way than you normally would. If you regularly build functional wireframes in order to test your design solutions, try paper prototyping and sitting with real users as they interact with a paper version of the design. If you normally jump into Photoshop/Fireworks, it may be worthwhile to bust out some pens and markers and see what results you get from approaching the problem from a different angle.

Regardless of the level of success, no one should assume that their design process "just works." We must understand that no design system is or should be perfect. No one gets it right 100% of the time.

What we can do is diligently apply the appropriate process to the appropriate need and not allow ourselves to become overly dependent on the tools and systems we have put in place for ourselves. After all, it is not the tools or the process, but a usable product that we care about.

Designers Lie. That's OK.

Our guest author this week is Cennydd Bowles*, UX designer at* Clearleft. *His new book* Undercover User Experience Design *is out now and worth your time and attention.*

And then, of course, you ask us how we work. We respond with confidence, bold Helvetica outlining our design process: research, ideas, prototyping, testing, iteration. We hope you approve of our rigor, and perhaps even believe it ourselves.

But the project is always more fluid. We splash between the phases, unable to separate ideas from output, problem from solution. We explore promising avenues that, days later, become dead ends. Sometimes, we solve a month's problem in an hour. It seems unfair to charge you the same regardless, but it avoids those difficult conversations.

Try as we may, we can't justify every decision. The birth of an idea is ineffable. Although we hope it came from our research and analysis, we can never know for sure. Intuition and experience influence our every thought.

We try to predict the effect of our work, but the truth is that design is always a gamble. We can tip the odds in your favor, but never guarantee a jackpot.

Sometimes we proclaim design to be art, sometimes science. This upsets both the artists and the scientists. Fortunately, it's neither. We claim to understand human behavior, but are surprised by it daily. Despite what we say, there are wrong answers. The fold is a myth only when it suits us. And yes, criticism still stings.

Don't misunderstand—we aren't bullshitting you. People who've taken our advice have profited from it. But design resists minute analysis—break it into its constituent parts and it crumbles into dust.

So, reluctantly, we lie. We lie because otherwise nothing would happen. We lie because we don't have the words. We lie because we're human. And being human is what it's all about.