

What's design thinking really like?

A seasoned design consultant helps us see beyond the Design Thinker game experience.

We sat down with Peter Coughlan, a senior partner at IDEO and a principal contributor to the Design Thinker game experience, and asked for his thoughts on the differences between the simulation and real world design thinking.

take two to three years. And culture change usually takes 3–5 years to take hold in an organization.

EP: And how is that time split among the Inspire, Ideate, and Implement phases introduced in Design Thinker?

A rough rule of thumb is the 2:1:3 ratio. Imagine a six month project—the first two months would be spent seeking inspiration—understanding the true client need and conducting deep research. The next month would involve ideation—synthesizing research findings, framing opportunities, and

ExperiencePoint (EP): So let's start broadly—how is Design Thinker different from the real world of design projects?

We don't complete projects in four hours! And of course there are a few other things—one relates to representing 'design thinking' as a process. Although for the purposes of learning and discussion, it's useful to tackle Design Thinker in a series of sequential steps, in practice it's rarely so orderly. The specific activities in a project are driven more by principles than by rote steps. Principles include things like “maintain a mindset of optimism and possibility”, “think creatively”, “build to think”, “empathize with users”, and “embrace constraints”. The challenge for novices is that those ideas are quite abstract and only achieve meaning after multiple projects and cycles.

EP: So how long would a project like Los Verdes normally take?

The best answer is “that depends”. A project of this size might be about 16 weeks up through the launch of initial experiments—then months to evolve and grow the experiments. Some projects are finished in less time, whereas significantly complex ones can

Key differences between Design Thinker and design thinking

	Design Thinker (The Game)	Design Projects (The Real World)
Length of Project	4 hours	16 weeks on average, but can be multiple years
Representation of design thinking	A step-by-step process	A discipline with key principles and practices
Ratio of time spent in each phase - Inspire: Ideate: Implement	2:1:1	2:1:3
Research methods	Photo journals	See Methods Cards for multiple examples
Number of extreme user subjects	2	10 to 20
Synthesis: Insights and Opportunities	Treated as discrete steps	Organic and emergent during the research process
Number of ideas carried forward after a brainstorm	1	3 to 5
Number of experiments for each idea	1	As many as needed in the time available

brainstorming an initial set of solutions. The final three months of the project would be spent in implementation—refining ideas through experimentation to evolve and finally validate solutions.

EP: Design Thinker participants often ask us for more details about User Observations. Are there other methods besides photo journals? How many research subjects are required? To what extent can you interact with the subjects without contaminating their behavior?

We have a set of tested techniques for gaining inspiration and building empathy and yet we continue to explore new methods. We've actually published a tool called the "IDEO Methods Cards" which introduces 51 different ways of putting users at the center of your work. These cards aren't intended to prescribe an approach, rather they should inspire the development of methods tailored to the nature of a project. For example, the Los Verdes photo journals actually combine three methods found in the methods deck—Extreme Users, a Day in the Life and Photo Essaying. Regarding the number of research subjects, we are seeking inspiration, not validation, so we find that with just 10 to 20 subjects, we can get more than enough interesting user insights to generate lots of new ideas. And we usually do interact with these folks—asking them clarifying questions to better understand the motivation behind certain statements and behavior. We do this in the field with the user. Although we usually approach an interview or observation with some questions, we let the encounter dynamically unfold—going where there is something interesting to be learned. It is an art for sure—building rapport and trust with your subjects by really listening to what they have to say provides a springboard to interesting insights.

EP: You mentioned that Extreme Users are one of the most popular methods used in your work? Are there others?

Another popular method for seeking inspiration is the use of analogs. We

will look at a user scenario and identify the salient characteristics. We then look for similar characteristics in other industries. For example, a hospital Emergency ward might seek inspiration from a NASCAR pit crew, where precision, speed, and highly coordinated teamwork are of the essence.



Peter Coughlan

EP: When do you engage in synthesis? What does that look like?

We don't view synthesis as a discrete step. Usually, it takes place as we conduct our research. Project teams immerse themselves in dedicated spaces that are filled with artifacts from their research. Patterns start to emerge. A deep understanding of users in context provides the inspiration for new solutions. There is never a single 'correct' insight, rather multiple ones are often revealed in the research process. Although it's great to have multiple insights during the course of research, projects have been known to move forward based on a single great insight.

EP: Although it was identified as part of the design thinking process, "Framing Opportunities" was not explored in depth in Design Thinker. Can you tell us a bit more about that step?

This goes hand-in-hand with synthesis. In our projects, we typically spend as much time synthesizing and framing

opportunities as we do conducting actual observations. Opportunities are the flip side of insights and usually multiple insights are combined to help us determine true opportunities for innovation. We may identify two or three opportunities worthy of exploration. It is exhilaratingly difficult work and tends to live in the back-and-forth conversations of the project teams. For example, the "How might we..." statement from Design Thinker evolved incrementally over a couple of weeks as we digested the Los Verdes research.

EP: After you brainstorm, how many ideas do you typically put forward to develop further?

It depends on the project's expected outcome and the time available for experimentation. Some projects require that we make many (dozens to hundreds) low-resolution prototypes to test out, while other projects have fewer questions to answer and therefore require fewer prototypes. As a rule of thumb, though, we rarely start with just one idea—because prototypes are quick and cheap at this stage in the process, it's the best time to pursue multiple ideas.

EP: And so how many experiments would you run on each of these ideas?

Rather than setting a goal for the number of experiments, it's important to dedicate sufficient time for experimentation and then conduct however many experiments are warranted. On our projects, we typically spend as much project time on the Implement stage as we do on the Inspire and Ideate stages combined! This is especially true if the goal of our experiments is to change behavior within an organization—you want people to have lots of time to "try on" a new behavior in a low-risk, low effort way so they can gradually warm up to the new behavior.

EP: OK, but how do you know how many experiments are warranted? When is that work complete?

Throughout the process, knowing when it's time to move on is critical to success. And truthfully, project schedules play a significant role in focusing attention and moving things forward. There are indicators however that can provide the confidence that you're ready to move on. During research, it's when you feel like you're seeing and hearing redundant information. During brainstorming, it's when the team feels it no longer has other ideas to contribute (plus an additional few minutes, since many great ideas often come out at the very end of a brainstorming session). During experimentation, it's when you reach that point where the effort to further improve your idea is not worth the marginal benefit. And note that rarely is a product or service truly 'finished' when it enters the marketplace—more incremental changes can follow in new versions or extensions. An extreme example of this—which is rapidly shifting the way designers are thinking—is the 'always in beta' philosophy

of many software companies. Google and other software companies practice the Agile method of putting semi-complete products out into the world and rapidly adding significant upgrades and changes based on the immediate feedback received from users. Google's philosophy is "launch and iterate."

EP: Still on the topic of experiments—in DesignThinker, participants get a chance to design an experiment. In your experience, what are the best experiments?

An experiment is a small invitation to change behavior. It should be rough enough that others are encouraged to contribute feedback. It should be temporary enough that if things go wrong, you can revert back to the original idea. And finally, it should be cheap enough that no one is saying "this is a waste of company resources!" So, the best experiments are those that feel "scrappy"—not quite enough resources for people to fall in love with a particular direction for the wrong reasons.

EP: Few organizations are like IDEO. A lot of your behavior is really outside of our typical way of doing things. Many participants ask us, "how can our organization become more like IDEO?"

The reality is, your organization won't be like IDEO, and IDEO won't be like your organization. Every company has a unique culture and trying to replicate another company's culture inside your own is probably not that useful. That said, as with all things design thinking, if you see something that serves as an inspiration for a new way of working, I would encourage you to just try it out, see what happens, and be prepared to adapt and evolve the practice based on how people in your organization respond to it. Learn from the experience—what worked, and what didn't?

EP: Many thanks Peter. We appreciate your time! ☺