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Design Unbridled, see page 24.

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The quarterly publication of the Industrial Designers Society of America (IDSA), *Innovation* provides in-depth coverage of design issues and long-term trends while communicating the value of design to business and society at large.

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Cover photo: Cat in the Hat at Universal Studios Orlando by Tucker Viemeister, FIDSA

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By Drew Smith
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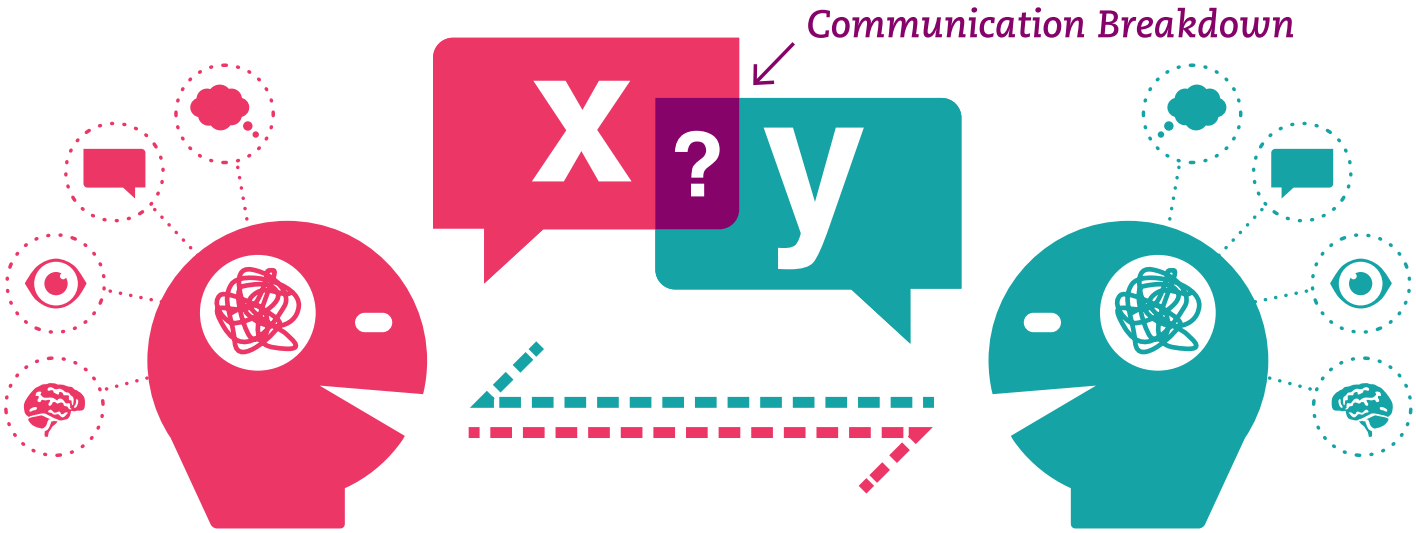
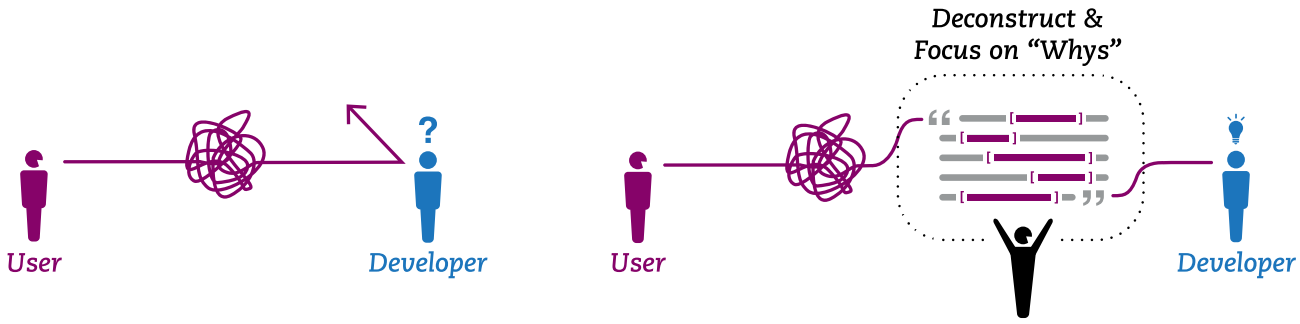
Drew Smith is a director of insight translation at Lextant, an ideal experience firm. He works with the industry's leading companies helping to uncover and communicate user insights to foster a deep understanding of the customers' desired experiences and provide a strategic vision for the business.

Avoiding Communication Breakdowns

BRIDGING THE GAPS IN INNOVATION USER-CENTERED DESIGN



I am always fascinated to watch people explain what they do. You'd expect it to be an easy task since we spend such a significant portion of our lives working. And yet when someone asks "What do you do?" the facial expressions of those listening reveal how effective our response is, from the furrowed brow of confusion to the dulled eyes of boredom. Such looks are signals that there is a breakdown in understanding.



These moments are not unique to conversations about what we do; they can occur anytime knowledge is being shared: when a doctor discusses a prognosis with a patient, when an IT support tech explains a computer issue to an employee or when a sociologist explains a behavioral theory to a designer. Communication breakdowns can have significant consequences, such as emotional turmoil in the case of the patient, utter embarrassment in the case of the employee or a flawed solution in the case of the designer.

These breakdowns are occurring too often in the business world as well, especially when it comes to innovation. Designers, with our ability to abstract complex ideas and navigate ambiguity, can have just as much impact facilitating communication and understanding during the development process as we can fueling the conversation with ideas.

Breakdowns during Innovation

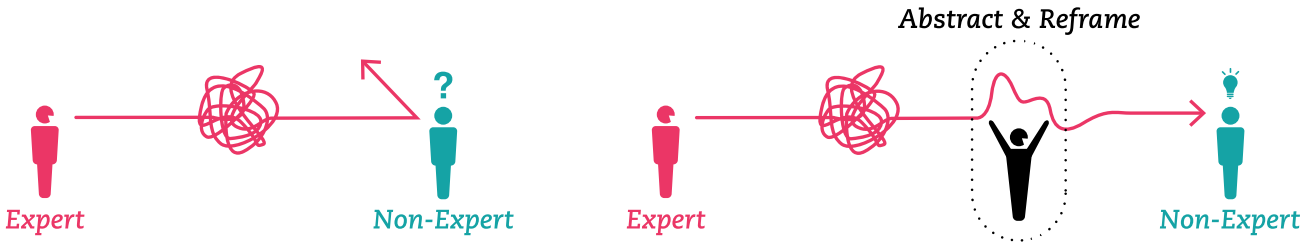
These breakdowns during the development process are often caused by the gaps that exist between people, be it with their knowledge and expertise, the experiences they've had, the perspectives they bring to the discussion or the language they use to communicate. There are many moments when these breakdowns can disrupt the development process and cause unneeded tension between the various stakeholders. A familiar instance of this can occur between the user and the development team. A less commonly acknowledged, yet equally consequential breakdown, can occur between the members of the development team itself. Both types of breakdowns present unique opportunities for designers to serve as translators and facilitators.

There is no denying that users are playing a larger role in the development process these days. They are helping ensure that more meaningful products are brought to market that address their needs and expectations. However, as users are introduced into this process they bring with them different languages and styles of communication. The challenge is that they don't necessarily speak the language of design or in a format that directly translates to design criteria or product opportunities, but rather through stories of experiences. Buried within these stories are rich insights that are often concealed within seemingly irrelevant tangents and unreasonable ideas that are not readily accessible to the average observer.

When properly understood and identified, these insights can provide the necessary understanding and inspiration that can lead to breakthrough innovations. However, when these insights are misunderstood or misinterpreted, they can cause the development team to question the value of the user's perspective or lead them down the wrong path—a path that may not only cost them time, effort and resources, but may also prevent them from arriving at a successful solution.

Imagine the following account from a user: "So just about every day as I'm about to leave for work, I am frantically scouring my house trying to find my car keys. It stresses me out. I waste so much time looking for them, and I end up being late for work. People are starting to get the impression that I don't want to be there. It's embarrassing. I know I should just put them in the same place everyday, but I can't seem to do it. I'm just not that disciplined. I would love it if I had some sort of alarm that I could put on my keychain that could help me find them. That would be amazing. I could focus on getting ready and just walk out the door each morning without even having to think about where they are or spend the time looking for them."

In this story there are a lot of things going on, and it is easy to get caught up in the fact that this person wants a keychain alarm. The obvious solution is to develop some sort of alarm, or maybe one variation better: a GPS tracking device that can lead the user to the keys in the event that the



alarm is inaudible. However, it's not *how* this person solved the problem (envisioning an alarm) that's the true insight, it is *why* they want one in the first place. As a designer, I used to find it difficult to not immediately start trying to solve the problem. This often caused me to lose the bigger picture. In this case, the experience that this individual wants to have is to walk out the door each morning without having to think about where their keys are or spend time looking for them. An alarm will not help them achieve this. Sure, it will help them locate the keys a bit more quickly, but an alarm will still require extra time and thought.

When communicating with a user, it is critical for anyone on the development team to take off their problem-solving hat for a moment. Once this happens, it enables us to identify the drivers behind what users want or dislike, so we can begin to develop solutions that are more meaningful and more innovative.

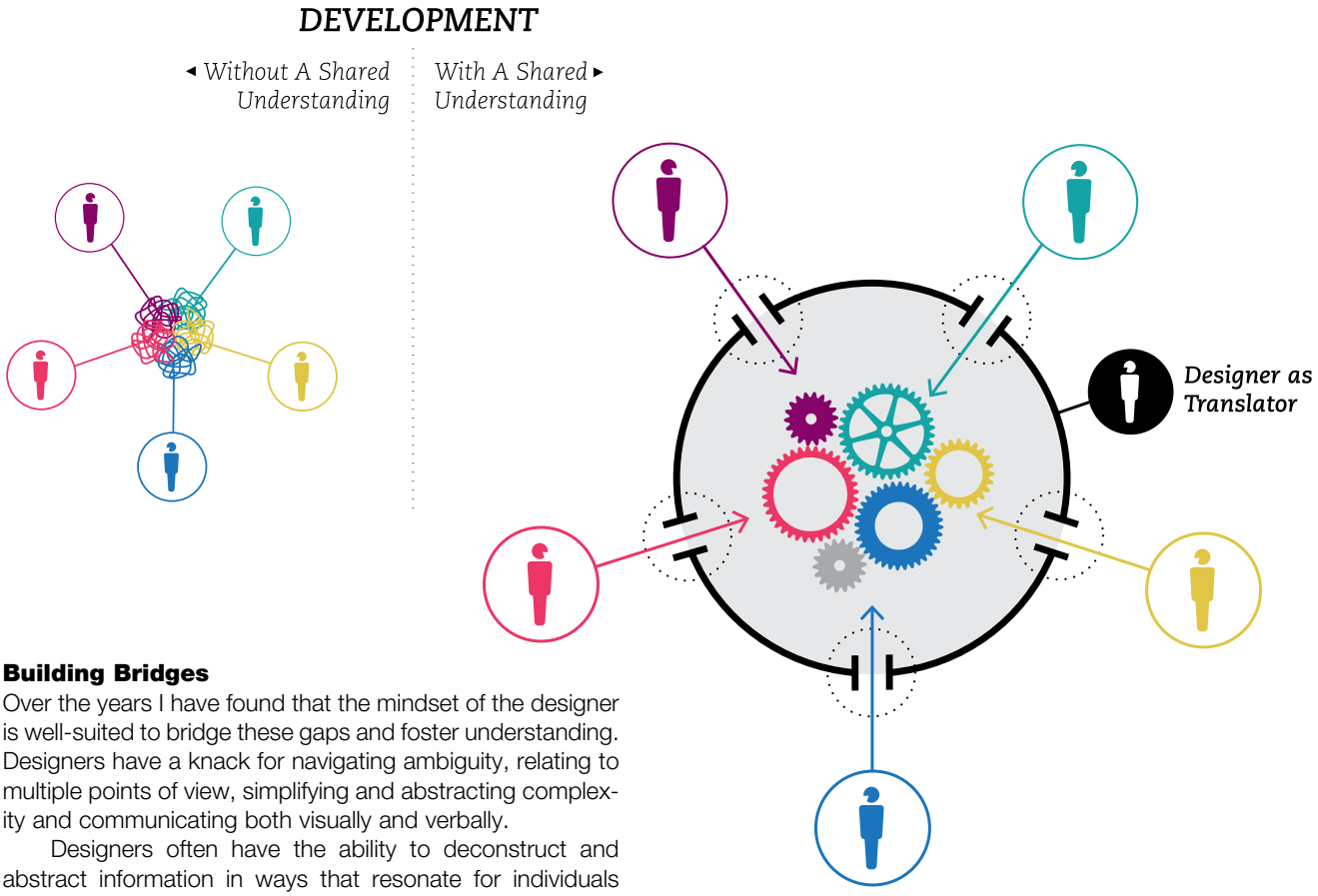
A second type of breakdown in communication and knowledge sharing occurs when there is a gap in the knowledge, expertise and perspectives among the individuals who make up the development team. This is becoming more common as more organizations begin to leverage cross-functional teams to solve complex problems. These cross-functional teams provide immense value to the process of innovation, but with each new discipline introduced to the team comes a nuanced language, varying domains of expertise and unique perspectives—the quantity and complexity of which can disrupt communication.

Just a few months ago, some colleagues and I were conducting a workshop with a large cross-functional team consisting of engineers, designers, marketers, product planners, managers and executives. During this workshop, an engineer explained a technology that could be leveraged and how it might improve the overall customer experience. After a few minutes of explanation, you could glance around the room and see the confused looks. The only ones who fully comprehended and nodded along in agreement were the other engineers. It wasn't that this individual wasn't concise or articulate—quite the contrary. The problem was that he was speaking as an expert to a room full of nonexperts. It was as if he was speaking a foreign language.

As he finished, I found myself trying to deconstruct what had been explained and began throwing out abstract metaphors that might foster understanding. At first there was some resistance to what I was trying to do, as if I was oversimplifying something that in its nature is complex and therefore should remain complex. However, **when complex concepts or ideas arise, it is important to create a common understanding or foundation before layering on complexity or detailed terminology.**

So there I stood fumbling around for potential metaphors amid some puzzled looks. But once we identified one that worked, you could see the light bulbs turning on for people. Everyone began to understand—certainly not at a technical level, but at a conceptual level. From then on, people began using the metaphor as a vehicle to expand upon the idea or challenge it. This conversation prompted a strategic discussion that has led to some significant internal changes within the organization. Looking back, I hate to think that we may have not arrived at the place we did simply because of a challenge sharing knowledge between disciplines.

Knowledge is a basic necessity for innovation to occur and is often the foundation that helps it succeed. Whether we find ourselves communicating expert knowledge within a cross-functional team or knowledge about the users for which we are designing for, large gaps can often disrupt or derail the development process. It is important to ensure that knowledge is communicated in a way that is accessible to anyone and understood by everyone, so we can benefit from the diversity of knowledge and perspectives being brought to the table.



Building Bridges

Over the years I have found that the mindset of the designer is well-suited to bridge these gaps and foster understanding. Designers have a knack for navigating ambiguity, relating to multiple points of view, simplifying and abstracting complexity and communicating both visually and verbally.

Designers often have the ability to deconstruct and abstract information in ways that resonate for individuals with varying knowledge, expertise and perspectives. It is similar to how a parent might explain a complex social construct to a young child, such as how money works. The vast gap in experience and knowledge between a parent and child might suggest a higher likelihood of confusion; however, parents often have an innate ability to recognize this gap and reframe the conversation in a way that's very different from how they might communicate with another adult. In these explanations, you will notice the absence of conversation shortcuts (such as acronyms and expert terminology) and the use of abstract metaphors. It's no surprise that we find designers using these same techniques. **We are trained to bring to life ideas and concepts that exist only in our imagination. We have learned to communicate them in a way that anyone can understand, because if we are unable to do so even our best ideas will go no further than the sketchbooks in which they were envisioned.**

This ability to communicate knowledge that designers possess, although often overlooked, is as important to innovation, business and society as the creative ideas designers are more commonly known for. There is so much more to innovation than simply developing ideas, and innovation is not limited to the development of products and services. There is a great need for individuals to help facilitate these processes, foster communication and help identify the meaningful connections that are essential to any form of design and development. Designers can and should fill this role; after all, who is better suited to promote and institutionalize design thinking than designers themselves? ■

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