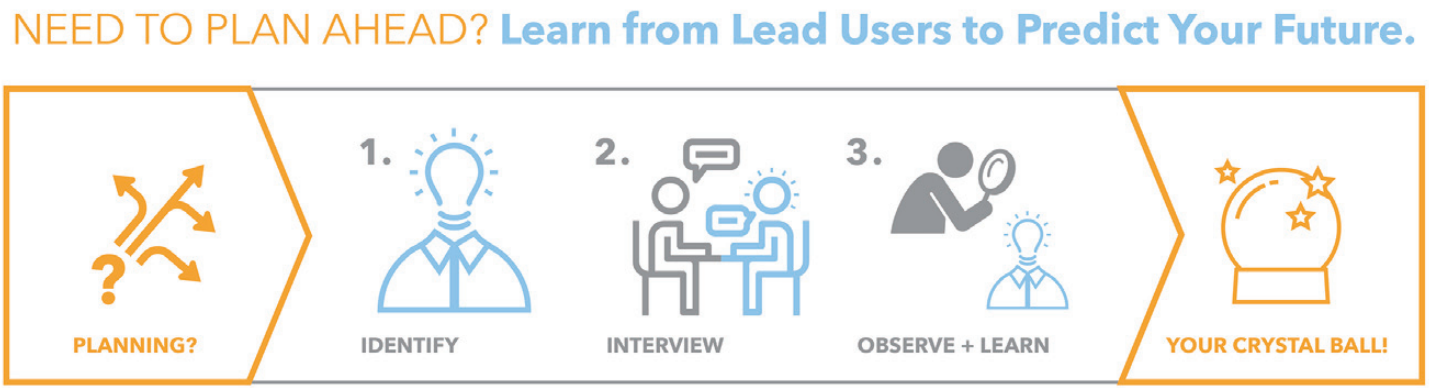
FEATURE ARTICLE

Researching Lead Users to Predict the Future

by Elliot Felix

Lead users represent the future that's already here. Let them be your crystal ball the next time you face a forward-thinking planning project.



DO WE HAVE ALL THE INPUT AND INFORMATION WE NEED?

Have we heard from enough people? Do we have enough data? These are questions we get on almost every organizational, operational, or space planning project we do in higher education. This is not surprising given how much change colleges and universities are going through and the tough decisions they are faced with.

Why the interest in hearing from more and more people? In higher education, there is generally a strong belief in inclusion and consensus building as well as a desire to make informed decisions about complex problems. Often, leaders are hoping that a tough call will be made easier if they can just talk to more people and get more information. Unfortunately, tough decisions can't always be made easier, and more data will just cloud the issue.

A BETTER WAY FORWARD

In this article, we discuss a way of reframing the "Have we heard from enough people?" question to provide a better approach that allows institutions to plan for their future in a more innovative and efficient way—by researching their "lead users" who are at the forefront and whose unique needs and behaviors today represent what will become the norm tomorrow.

To show how this approach works in reality, we'll weave in stories from the campus-wide research project we undertook with Georgia Tech on the future of learning and research on campus in order to inform its library transformation. In this project, our firm, brightspot, conducted dozens of interviews and workshops, shadowed a dozen faculty and students, created insights about how learning and research were changing, developed a playbook of service and space concepts to address these insights, conducted an online survey for students and faculty to identify the most promising concepts, and then created staff working groups to develop, pilot, and implement each of the selected concepts (more information

about the project can be found at http://librarynext.gatech.edu/).

CHOOSING QUALITY OVER QUANTITY

The answer to "Have we talked to enough people and do we have enough data?" is "no"—but also "yes." You'll never get an "n" large enough to satisfy all your critics or convince all your skeptics. They'll always ask for more. Another survey. Another round of interviews and focus groups. More benchmarking.... However, if you talk to the right people in depth, a small sample size can work magic. They can be your crystal ball. So, "Have we talked to enough people?" is the wrong question. "Have we talked to the right people?" is a better one.

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LEAD USERS ARE YOUR CRYSTAL BALL

Who are the right people to talk to when you're doing a forward-thinking planning project? Your lead users. MIT professor and innovation theorist Eric von Hippel has spent decades studying lead users, the people who are at the forefront of an industry or activity. These are the virtuosos whose behaviors are extreme. He found that most innovations come not from companies but from lead users inventing things for themselves to solve their own problems. (If you want to learn more about von Hippel's [2005] work, his book *Democratizing Innovation* is a free, open-access resource that's a great place to start: http://web.mit.edu/evhippel/www/democ1.htm.)

THE FUTURE IS ALREADY HERE

Lead users are proof of science fiction author William Gibson's assertion that "the future is already here—it's just not very evenly distributed." These are people whose forward-thinking ideas, behaviors, and needs will spread to become the norm in the future. One now famous example is the Camelbak water bottle. It was invented by Michael Edison, a distance cyclist who was also a paramedic and so modified an IV bag to provide water hands-free on long rides. This contraption spawned a whole new category, and now drinking from a tube connected to a bag doesn't look odd the way it did for Michael back then.

HOW MIGHT THIS APPLY TO HIGHER EDUCATION?

What does inventing new sports equipment have to do with student success, faculty research, or increased access? Well, the same process can help universities achieve their goals and make informed choices about their future. For example, when we worked with Georgia Tech, we identified a handful of lead users to engage. One taught literature by having his engineering students physically reconstruct Thoreau's cabin at Walden Pond from the text. From this, we didn't conclude that all English professors would have their students fabricate cabins, but we did define some key themes that would apply broadly: hands-on making, using primary sources, participating in team-based projects, combining disciplines, and solving problems in context.

HOW DO YOU FIND YOUR LEAD USERS?

If you stop to think about it, you probably know who your lead users are. You can probably picture one of them right now. But to better identify them and confirm who you might be picturing, here are some things to look for:

- They often make unusual requests that push the boundaries of the services or tools you offer, leaving you saying, "No one's ever asked that before...." or "I'm not sure if that's possible, let me look into that...."
- You're probably already collaborating with them on something. Maybe they presented their work at a showcase event or maybe you pursued a grant or a project with them.
- They are often pushing beyond the boundaries of their disciplines and joining with unusual collaborators (likely from beyond the campus and including industry partners) to work on projects that can only be accomplished by bringing together a unique and diverse team.
- Based on their energy and innovation, they are probably magnets for students, partners, and funding—proof of the adage that if you want something done well, give it to a busy person.

HOW DO YOU RESEARCH LEAD USERS?

Once identified, how should you engage these lead users? Don't send them a survey or bombard them with structured questions. Because you don't know what you don't know, you won't get the questions right and they might lose interest. Instead, you need to spend time with them in ways where you can learn and discover as you go. The two best ways of doing this are observations and in-context interviews.

- *Observations* are an opportunity to shadow them, see them in action, and then ask about what they are doing, why, and how. You have to do this when appropriate; sometimes this happens in the moment and sometimes afterward in a debrief.
- *In-context interviews* are a chance to ask open-ended questions ("Tell me about a successful project you worked on recently....") and then dig deeper as you listen and learn ("How did you overcome that challenge?" or "What did you have to adapt or change to accomplish that?"). Context matters and so be sure to conduct these interviews in a setting that will prompt discussion, like their lab or office.

HOW DO YOU CREATE USEFUL INSIGHTS FROM ALL THIS?

Once you've collected all this data, how do you make sense of it? We suggest a three-step process:

- *Get organized* by doing some light collating and clustering of your ideas to begin to look for patterns; for instance, write your observations on post-its and start to cluster similar observations to begin to get your thoughts together.
- *Conduct a sense-making workshop* with a small group of staff who know the domain well (you can also invite your lead users to such a workshop since they may make sense of or interpret things in novel ways). In this session you'll look inward for patterns and themes from your lead users while also looking outward to broader industry trends or user data that puts your findings in context; for instance, you can compare what you are learning about your lead users with the general population of users. During and after the session, you'll develop a few key insights that are specific enough that you know what to do differently going forward.
- *Vet (and then refine) these insights* with different audiences—including the lead users—to see if they resonate and then further refine what doesn't. For example, in the Georgia Tech project, beyond the pedagogical insights mentioned, a key lesson was also that innovative projects were too invisible and too ephemeral—not enough people knew about the cabin! So, the need to showcase projects, provide storage, and give ongoing support became a key insight.

TURNING INSIGHT INTO ACTION

Once you have created insights from your research and vetted them broadly to see which resonate, it's time to brainstorm concepts that address the problems and opportunities you identified. There are a number of ways to turn insight into action:

- *Spot and support workarounds:* Identify how lead users are hacking the system or using other workarounds that could be turned into a real thing (or help you change the system itself). For instance, it may be that a faculty member is frustrated with the campus learning management system and so adopts an open tool like WordPress to host her class instead, and this more public venue raises the stakes for students who increase the quality of their work as a result.
- *Ask users and staff directly:* In a workshop or interview, ideas and solutions may emerge directly from the conversation about a problem. These ideas can be captured, curated, and refined. For example, a recent workshop on the dining experience on a campus generated dozens of ideas in a brainstorming session, from smaller tables that promote 1:1 conversations to adding a communal teaching kitchen so that groups can learn and cook together to a rotating showcase for local providers.
- *Apply inspiration indirectly:* When there isn't a readily apparent solution, you can approach the problem indirectly in order to uncover an idea. One simple technique is to seek inspiration from other sectors and situations; for instance, we used a technique called "story borrowing" to plan a museum. In a workshop we asked participants about their experiences going to a national park, a farmers' market, a baseball game, and an Apple store and then asked them to imagine a future museum experience infused with those qualities. This generated dozens of ideas from changes to staff uniforms to ways to break up the gallery experience with views outdoors. (*Gamestorming: A Playbook for Innovators, Rulebreakers, and Changemakers* [Gray, Brown, and Macanufo 2010] is an excellent resource for these techniques.)

On the Georgia Tech project, we employed all these techniques to create a playbook of concepts and then developed the "plays" as part of the library transformation. We developed a

- *Research Navigator* role to guide users through the complex administrative side of research including funding, certifications, compliance, and data management.
- *Digital Media & Scholarship Collaborative* to help users discover new information and patterns within their data through visualizations.
- *Consultation Center* where users could meet with experts individually and in groups to get orientation and advice in a convenient, open, and visible place.
- *Teaching Studio* that serves as a neutral, safe space for faculty to work with staff to design, develop, and test emerging pedagogical practices.
- *Innovation & Ideation Studio* to provide a low-tech space with flexible furniture and supplies to help users explore, visualize, and create "messy" models of their ideas.
- *Scholars Event Network* to showcase work through events and information—physically and digitally—to provide inspiration, identify collaborators, and access resources.

Along the way, we were also careful to think as much about the people involved as the ideas they were generating. By involving lead users in the ideation process, we garnered their support to champion the concepts later, promote them among peers, and lead the way. By involving small, empowered staff

teams to take each concept forward, we were able to not only get better ideas but also increase the sense of ownership and accountability in bringing them to fruition.

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GETTING STARTED

So, the next time someone asks whether you talked to or surveyed enough people on a planning project, the answer is that you talked to the right people in the right way. It's fine to have a small "n" if they're the people who represent the future that's already here. Good luck using your crystal ball!

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ELLIOT FELIX founded and leads brightspot, a strategy consultancy that reimagines places, rethinks services, and redesigns colleges and universities to increase student success, improve research support, and enable staff productivity while making space and operations more efficient. He is an accomplished strategist, facilitator, and sense-maker who has helped transform over 70 colleges and universities. He also a prolific speaker and writer, having presented at more than a dozen Society for College and University Planning (SCUP) conferences and written in *Planning for Higher Education*, *Journal of Learning Spaces*, *Library Journal*, EDUCAUSE's *7 Things You Should Know About...*, *Business Officer Magazine*, and *Touchpoint–The Journal of Service Design*. He earned his B.S. in architecture from the University of Virginia and his M. Arch from the Massachusetts Institute of Technology.

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