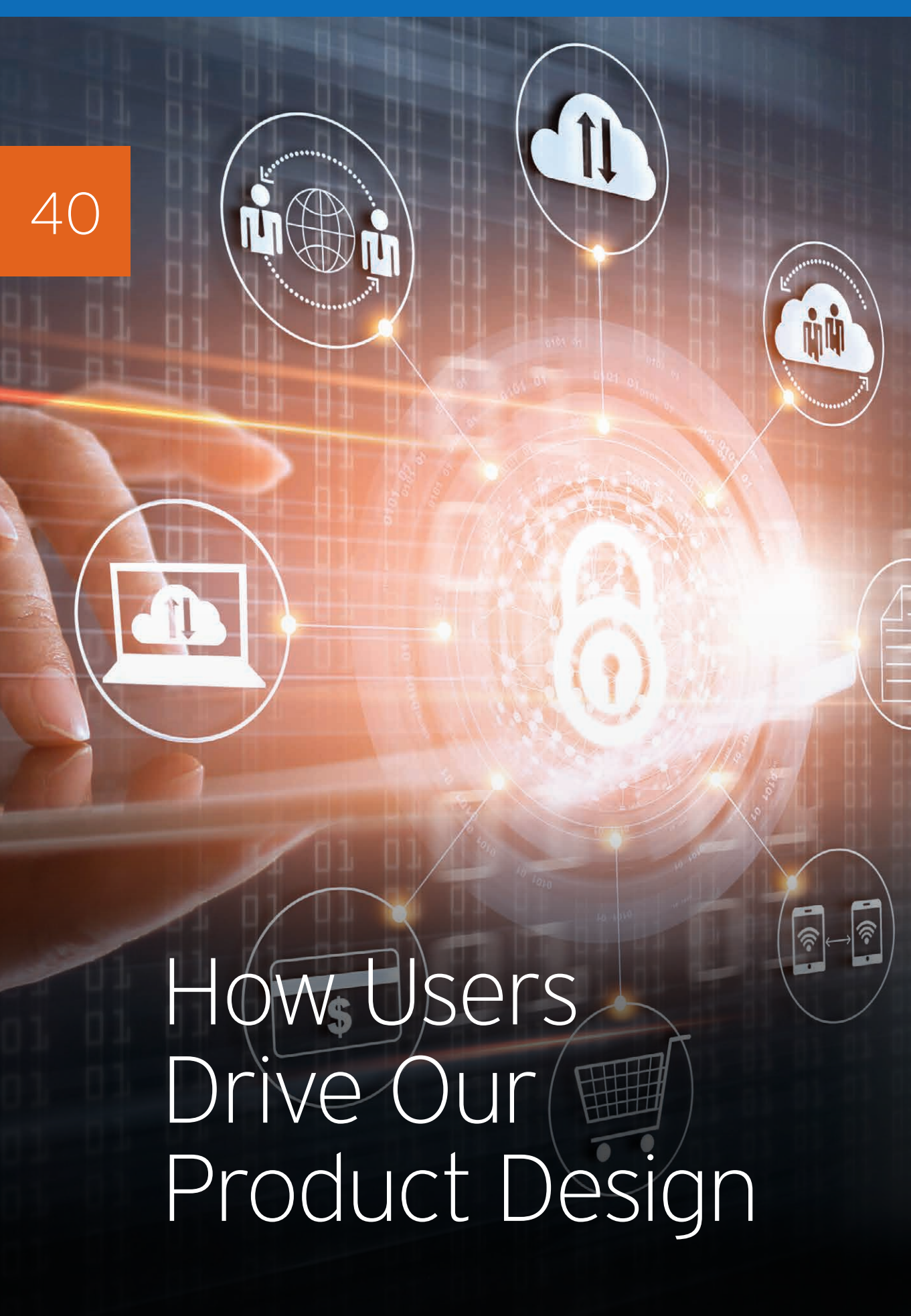# How Users Drive Our Product Design

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Technology has become an integral part of all of our lives. In response, Citi Treasury and Trade Solutions (TTS) is changing how we design, develop and deliver products. Our goal is to deliver the best possible user experience.

In the past, organizations followed a design and development model based primarily on delivering new features, with limited focus on how end users would interact with those features. Software development's primary aim was to create a system that worked and was reliable; they then added a front end, and trained clients to use the system.

Over the past 20 years, all of us increasingly interact with digital devices in our personal lives. As a result, interaction design has come to the forefront of product delivery. To improve our user experience, Citi TTS has adopted a user-centered design model (first described by cognitive scientist and usability engineer Donald Norman in the best-selling book *The Design of Everyday Things*).

User-centered design is focused on solving users' problems. In practice, it means that instead of setting out to build a specific solution, we start by building empathy for our clients. We sit with clients and observe their daily routine to discover the challenges they encounter. Using a series of interviews and guided conversations about their needs and preferences, we ideate concepts that will deliver value for our users.

For example, a few years ago (under our previous approach), we created a CitiDirect mobile solution that used a device's browser. A primary consideration was the extent to which we could reuse existing elements of the CitiDirect desktop experience.

Since that solution was created, our expectations as consumers have rocketed — we are used to using streamlined apps to order a taxi in just a few swipes. When we decided to revisit our mobile offering, we spoke to users to discover their time-dependent tasks and find out under what circumstances they need to be completed when they are on the move.

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How we think about design

TTS primarily uses two models for design; both involve users in product design throughout development in order to validate and refine the product or solution. The models are:

1. **Design Thinking:** This model ensures that we truly understand the problem space we are aiming to address from our users' perspective. We study their behavior, analyze their challenges and speak to them at length about their everyday routines. Then, with multi-discipline teams, we ideate on how we might solve, or better yet, eradicate the problem. Design Thinking aims to come up with lots of new ideas and then identify those that deliver most value for users. It is usually applied to a new problem space and relies on upfront in-depth user research.

2. **Lean UX:** This approach has a tighter focus than Design Thinking. Typically, we identify a potential problem, develop a hypothesis and then validate – although we accept that our first guess may not be right and that users will determine what changes are made. Lean UX works best for an existing product that we want to improve or add new features to. Compared to Design Thinking, it is relatively quick because it is focused on a clearly defined scope.

Putting these two models into practice has required a shift of mindset. To some extent, we have had to set aside our long experience of developing solutions and be humble: an important part of these design models is accepting that we don't know exactly what clients want. Instead, we adopt a scientific approach to find out what our users need, and then build from there. In addition, we monitor developments across industries – if we don't know what "excellent" looks like, we can't build it for our users.

Putting our design models into practice

Our adoption of user-centered design, using the Design Thinking and Lean UX models, has already been applied to a number of products. In each case, we have sought to discover users' mental model in an effort to understand

how they perceive information and accomplish their regular work tasks.

When we created the CitiDirect BE® Mobile app, we created sketches and prototypes that we thought would work and then tested them extensively with users. By the time we embarked on code development, we were confident about the design because it had already gone through multiple design iterations and had been validated by our users.

We have also redesigned elements of the payment approvals process by speaking extensively to users about the most important data points for payment authorization. We created different designs to identify which information should be most prominent. One insight from working with users was that payments made using a payment template in CitiDirect BE® are considered trustworthy because payees and payment methods have already been verified. In response, we added a badge to all payments made using a template so they can be easily identified and immediately authorized.

Another project identified user login as a potential problem. We developed a hypothesis that existing login experiences placed too much cognitive load on the user. We used a prototype to validate this hypothesis and got feedback that login is a friction point because users are forced to make a choice when they log in. To address this, we flipped our login model on its head and now we guide the user through their login process, step by step, rather than relying on our users to make a selection upfront. Additionally, based on user insights, we developed a "remember me" feature, so users do not have to enter their ID every time. We also introduced the ability to make passwords visible so users are clear what was entered.

Elsewhere, we discovered through client interviews that senior executives, such as CFOs, may have different user behavior and login patterns. These user insights drove the team to add push notifications to our mobile app to tell users that they have items pending authorization.

We intend to implement these same thought processes and methodologies across all of our channels to give our users the experience they want and deserve.

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Working together

Underlying our design approach is a development methodology called "agile," which is about learning early and often. In practical terms, it means we strive to deliver a complete feature every three weeks so that they can be tried out by a product designer and their feedback can be incorporated into the next iteration. In the past, a large document was usually written about an application and how it was intended to work; feedback might not be received for six to nine months, limiting opportunities for improvement. In contrast, agile methodology delivers small, concrete chunks of a solution and facilitates rapid feedback.

Agile methodology also overcomes a problem that often occurs in large organizations whereby different parts of the business do not speak to each other frequently or work as a coherent team; sometimes communication among the front office, the technology team and testers can be poor, meaning details risk being overlooked. Agile empowers product, technology and testing teams to work together to deliver solutions. At Citi, product managers, testers and designers meet every morning for a quick daily standup meeting to discuss progress. By maximizing communication across teams, turnaround time can be improved significantly.

Benefits for all

TTS' use of user-centered design, the Design Thinking and Lean UX models, and agile methodology, has delivered many benefits.

For Citi, they help ensure that we are building the right things. Consequently, our investment budget is used as efficiently as possible. For clients, these methodologies ideally mean that their experience of using Citi solutions is as streamlined and straightforward as any consumer app they have on their phone. Functionality is now so intuitive that they are less likely to have to call support. Ultimately, our approach to design helps save users' time, adds value and provides reassurance that their critical tasks are being executed securely and efficiently. ■

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