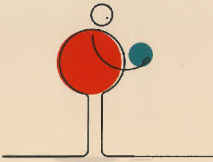


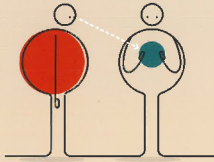
ARCHETYPE 01



### Direct User

I engage the solution directly and personally

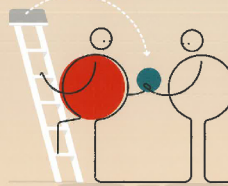
ARCHETYPE 02



### Indirect User

I engage the solution personally but indirectly, through another user's use

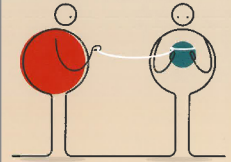
ARCHETYPE 03



### Intermediary User

I enable other users to engage the solution through my own engagement with it

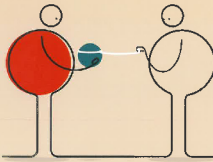
ARCHETYPE 04



### Governing User

I engage the solution in a way that significantly affects the quality of other users' engagement with the solution

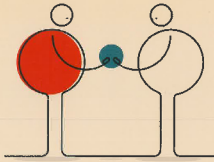
ARCHETYPE 05



### Dependent User

I engage the solution as enabled by another user

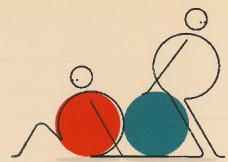
ARCHETYPE 06



### Parallel User

I engage the solution along with others who engage it in a similar way

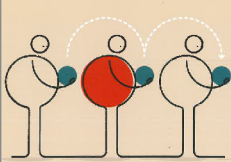
ARCHETYPE 07



### Complementary User

I engage the solution along with others who engage it in a different way

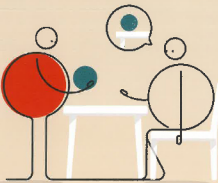
ARCHETYPE 08



### Serial User

I engage the solution in a series of other users engaging the solution

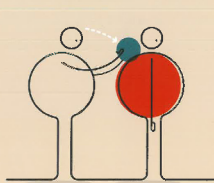
ARCHETYPE 09



### Surrogate User

I engage the solution as a stand-in for another user

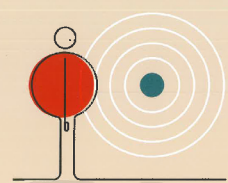
ARCHETYPE 10



### Terminal User

I engage the solution as the focus of its use by another user

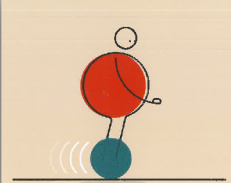
ARCHETYPE 11



### Ambient User

I engage the solution through its effect on my immediate environment

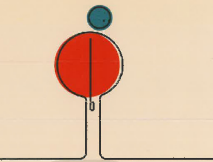
ARCHETYPE 12



### Conglomerate User

I engage the solution intimately and unconsciously, as an add-on or extension of myself

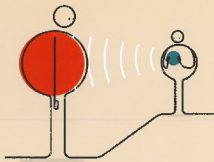
ARCHETYPE 13



### Autonomic User

I engage the solution automatically, unconsciously and seamlessly

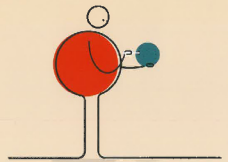
ARCHETYPE 14



### Oblique User

I engage the solution through the by-products of others' engagements

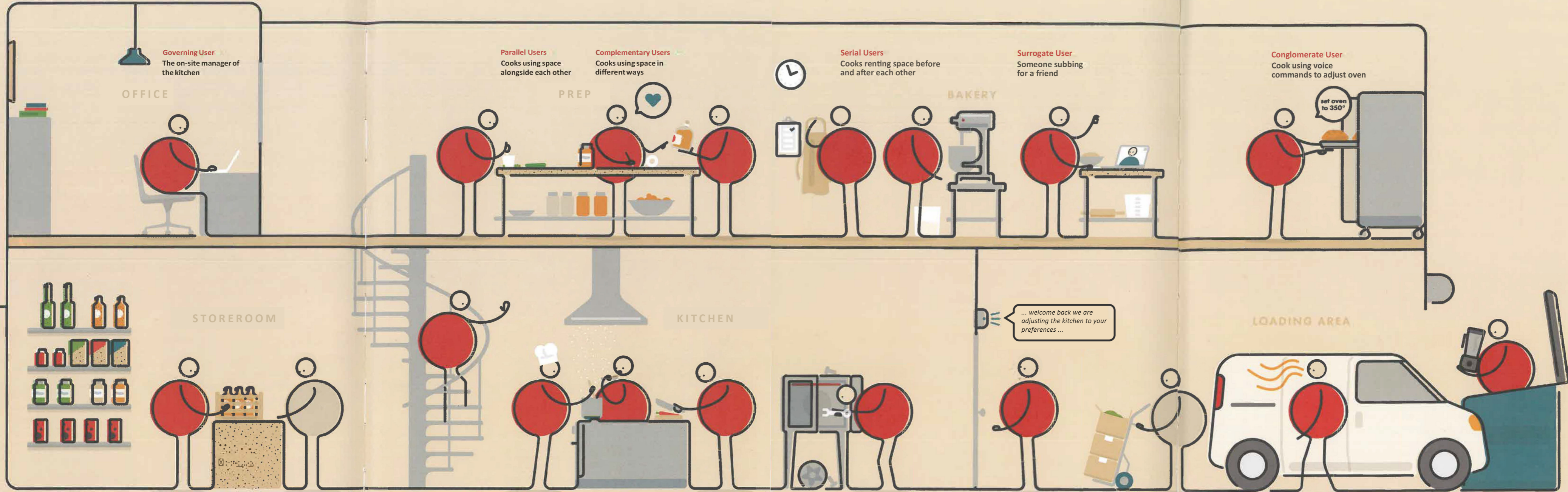
ARCHETYPE 15



### Generative User

I engage the solution in a way that alters the solution itself

15  
generic user  
archetypes



**COMMERCIAL KITCHEN**

**Terminal User**  
 Restaurant employee picking up food made in the kitchen

**Intermediary User**  
 Friend who helps prep the kitchen space

**Direct User**  
 Entrepreneurial cook renting the kitchen

**Indirect User**  
 Family member or partner giving feedback

**Dependent User**  
 Intern or trainee under cook's supervision

**Generative User**  
 Cook altering space or equipment

**Autonomic User**  
 Cook in future-state kitchen that automatically adapts to specific needs

**Ambient User**  
 Pedestrian smelling food and avoiding unloading cooks

**Oblique User**  
 Someone scavenging materials or leftovers

**ARCHETYPE 01**

**Direct User**

I engage the solution directly and personally

**ARCHETYPE 02**

**Indirect User**

I engage the solution personally but indirectly, through another user's use

**ARCHETYPE 03**

**Intermediary User**

I enable other users to engage the solution through my own engagement with it

**ARCHETYPE 04**

**Governing User**

I engage the solution in a way that significantly affects the quality of other users' engagement with the solution

**ARCHETYPE 05**

**Dependent User**

I engage the solution as enabled by another user

**ARCHETYPE 06**

**Parallel User**

I engage the solution along with others who engage it in a similar way

**ARCHETYPE 07**

**Complementary User**

I engage the solution along with others who engage it in a different way

**ARCHETYPE 08**

**Serial User**

I engage the solution in a series of other users engaging the solution

**ARCHETYPE 09**

**Surrogate User**

I engage the solution as a stand-in for another user

**ARCHETYPE 10**

**Terminal User**

I engage the solution as the focus of its use by another user

**ARCHETYPE 11**

**Ambient User**

I engage the solution through its effect on my immediate environment

**ARCHETYPE 12**

**Conglomerate User**

I engage the solution intimately and consciously, as an add-on or extension of myself

**ARCHETYPE 13**

**Autonomic User**

I engage the solution automatically, unconsciously and seamlessly

**ARCHETYPE 14**

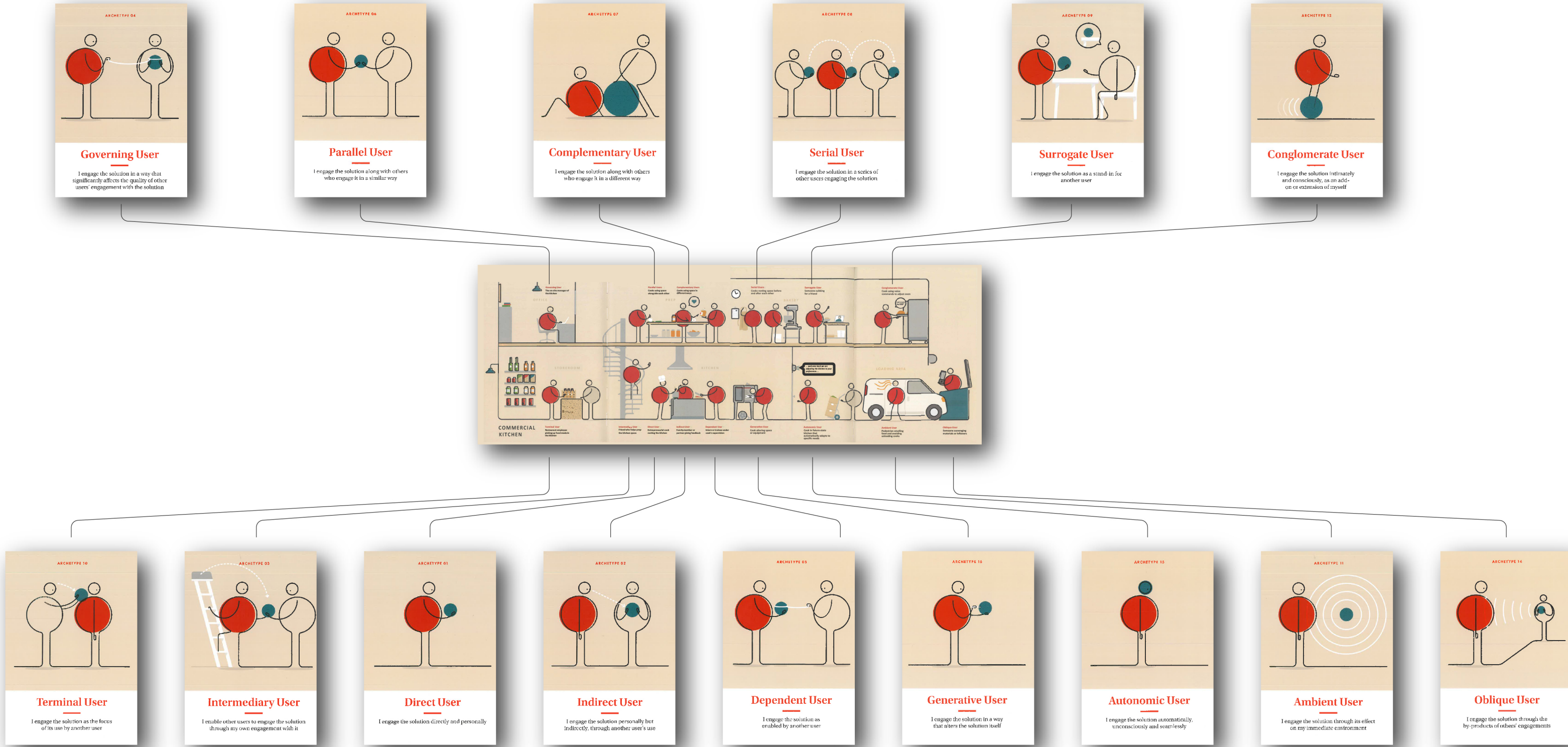
**Oblique User**

I engage the solution through the by-products of others' engagements

**ARCHETYPE 15**

**Generative User**

I engage the solution in a way that alters the solution itself



# Direct User

*"I engage the solution directly and personally"*

The Direct User Card highlights the form of engagement with a product or service that we all tend to think of by default. This is the classic subject-object idea of a user in an active, one-to-one relationship with an artefact.

One of the reasons we tend to give direct users so much attention in design and innovation practice is that they're almost always the easiest users to imagine as our customer. That's because their engagement with the stuff we design seems clear and intentional. The driver of a car; the player of a video game; somebody making a call on their mobile phone; somebody using a pair of scissors, pushing a vacuum cleaner or making a deposit to their account at a bank: these people can all be seen as direct users. Alongside the other User Archetype Cards, the Direct User Card pushes us to see these users in a broader ecosystem that includes many other users and relationships.

This card also helps to remind us that we may have built-in assumptions about these users that hold us back. One such assumption is that direct users engage artefacts deliberately and voluntarily. This may not always be the case. Like us, you've probably encountered direct users who use an artefact only because it is required by their job or even by law. Who, for example, would put money in a parking meter if it wasn't required?

Here's another less-than-voluntary case: direct users are often compelled to engage artefacts as a precondition for getting to some other necessary or desirable experience. Think of those thick, impossible-to-open plastic clamshell packages, for example. This packaging works extremely well to protect small but valuable products and to prevent those small things from being shoplifted-but opening that clamshell to get at the cool new gizmo inside can be a frustrating, negative experience for direct user customers. This is just one example of how, even though we tend to think most often of direct users, we might be missing opportunities to support them as well as we could.

## Things to think about

- » What are some possible examples of direct users for our product or service today? In the future?
- » Is this user's experience deliberate or desired?
- » Are there any potential forms of direct use that we tend to overlook for our product or service?
- » How do direct users shape the experience of other users in the ecosystem?

Although direct users are almost always the easiest to notice, that doesn't necessarily mean they are straightforward and knowable. In some instances, the specifics of their engagement with artefacts can be obscure and hard to imagine. For example, at nuclear waste sites around the world, where radiation is expected to pose dangers for the next 10,000 years, specialists have designed warning signs and labels that will still be visible and meaningful for people centuries from today. Those future people are direct users-but, being so far away in time, we can only partially imagine who they are or the context of their lives and how to best design signs and labels for them.



## Direct User

I engage the solution directly and personally

## Indirect User

*"I engage the solution personally but indirectly, through another user's use"*

The Indirect User Card reminds us to consider how we can experience products and services in ways that are less linear and clear-cut than the ways direct users experience them. Indirect users are usually less immediately noticeable than direct users—mostly because our conventional concept of users and the ways we research them can lead us to unintentionally overlook them. This is a mistake because, in many instances, they are probably even more numerous than direct users in an artefact's ecosystem.

Indirect users are often easy to identify once we get comfortable with them. If the driver of a car is a direct user, then a passenger is an indirect user of most of the features and functions related to driving. (But the passenger would be a direct user of some other parts of the car, such as the passenger seat.)

As an example of a missed opportunity to design for an indirect user, Youngblood thinks of his own car on those occasions when he's the driver and his wife is a passenger. It's difficult for her, on the passenger side, to see the speedometer because it's oriented toward the driver. If she wants to check how fast the car is going, she has to crane uncomfortably from her seat. The designers of the instrument panel seem not to have considered this use by an indirect user.

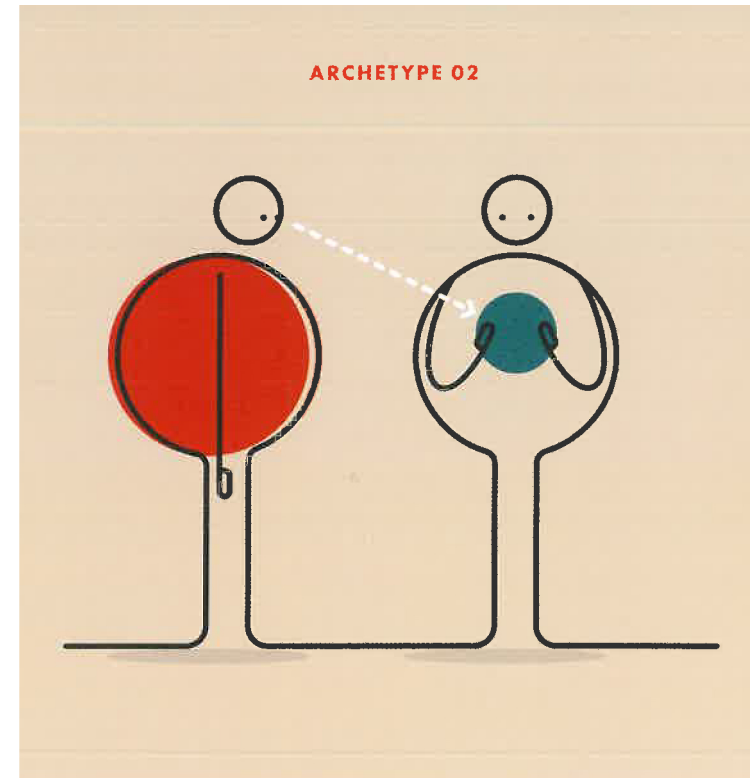
Here's a success story about designing for indirect users: children's books for pre-readers. Before they can read independently, children can't directly engage with pages of text. They rely on others to read to them, making them quintessential indirect users of the words on the page. However, book makers long ago recognized the value of integrating images, colours, even textures, to enable children to engage these aspects directly while listening to the text being read to them.

Another example that highlights the potential value of engaging indirect users more directly is spectators of people playing

video games (a kind of indirect use that we didn't think much about in the early days of online gaming, but that is now a gigantic industry in its own right). We can also think of mentors of family members following and supporting a student's progress in an online college course (as described earlier). Recognizing and designing for these indirect users alongside direct users has had significant impact on how we think about design in the online gaming industry, and could elsewhere as well.

### Things to think about

- » Was our product or service designed with indirect users in mind? Should it be?
- » What are some possible examples of indirect use for our product or service today? In the future?
- » Why and in what ways are these users' engagements with our product or service indirect?
- » What are some advantages and disadvantages for users when they experience our product or service indirectly rather than directly?



## Indirect User

I engage the solution personally but indirectly, through another user's use

# Intermediary User

*"I enable other users to engage the solution through my own engagement with it"*

The Intermediary User Card asks us to consider those whose engagement with a product or service takes the form of bridging the gap between an artefact and another user. In other words, these are users whose use is defined by their enablement of another user's engagement, not just their own. We tend to overlook intermediary users either because we're too fixated on some other user (often a direct user) or because we fail to see how the nature of their engagement is related to another user's experience.

We have already touched on operating rooms and the many intermediary users of medical devices involved in supporting the surgeon, the direct user. These intermediary users are formally recognized as part of their ecosystem-even if their role and their needs are not always clearly understood.

Intermediary use can take other, less formal forms, as well. Think of someone with a smartphone who enters their password into the phone only to enable a friend to make a call. In some ways the phone's owner is the direct user of their phone-it's certainly designed with that in mind-and much of the time that's likely the most fruitful way to conceptualize their interaction with the device. But, in this case, they are acting as an intermediary user, engaging the security and personalization aspects of the phone to enable another person to use its communication functions.

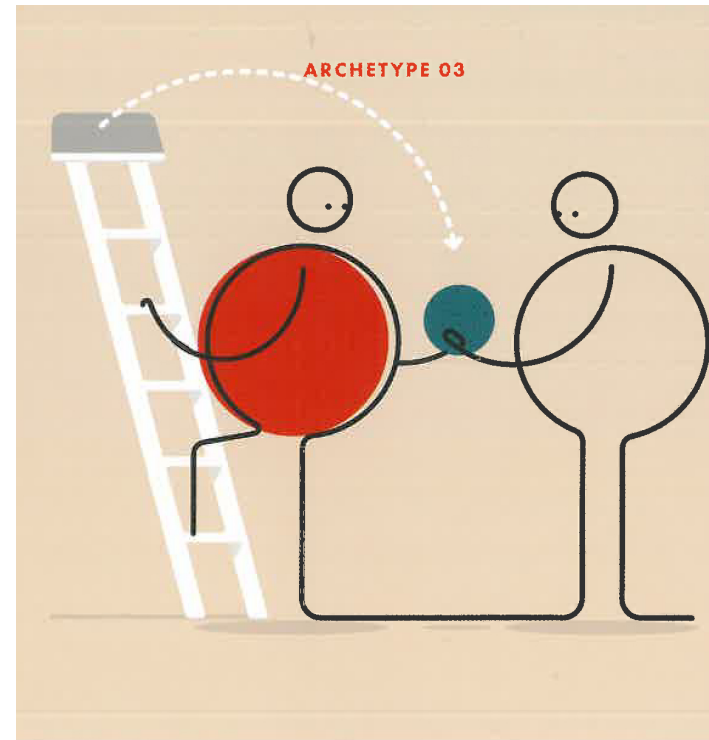
These sorts of instances of intermediary use, where someone enters another person's personal security or account information into a device or application or enters their own information so that someone else can use "their" account, are such commonplace workarounds that they seem to suggest an opportunity area for device and service designers. In this example, the design of the individual accounts requires an intermediary to be involved and forces users to share each others' identities. This

could pose security issues and certainly deteriorates the quality of user data that the app or device might be gathering-which might matter more to the maker than to the account holder, unless account holders start being offered inappropriate or annoying recommendations or alerts based on their friend's activity. Either way, there seems to be room for improvement.

Intermediary use is not necessarily intentional or goal-oriented. It's also not necessarily in the best interests of other users. By bridging a gap between an artefact and another user, the intermediary user makes that other user's experience possible-whatever that other user's experience may be.

**Things to think about**

- » Was our product or service designed with intermediary users in mind? Should it be?
- » What are some possible examples of intermediary use for our product or service today? In the future?
- » When and how (if at all) are these users aware of their intermediary role?
- » How do these users affect other users' ability to engage with our product or service?



## Intermediary User

I enable other users to engage the solution through my own engagement with it

# Governing User

*"I engage the solution in a way that significantly affects the quality of other users' engagement with the solution"*

The Governing User card calls our attention to users who have a controlling influence over another user's experience of an artefact. While most users in an ecosystem have some impact on other users' experiences, they are not necessarily governing users. The core attribute for governing users is control.

We've probably all been aware of governing users in one context or another, though we may not have thought of them in these terms. The drivers of taxis or buses are normally governing users with respect to their passengers. When you've been a passenger, you've probably noted that the driver has unique control over a great many aspects of your experience, including not just the time it takes to get to your destination but also how comfortable and safe you feel along the way and more. If we were designing a passenger experience for these forms of transportation, it could be very valuable to pay some attention to the governing role of the driver.

Another example we may all relate to (imaginatively if not experientially) is that of a nurse charged with adjusting the flow of pain medication for a patient. The patient's experience of comfort or discomfort is highly governed by the nurse, making the nurse's role one of tremendous power and meaningfulness for not only the patient but also family members and others in the ecosystem.

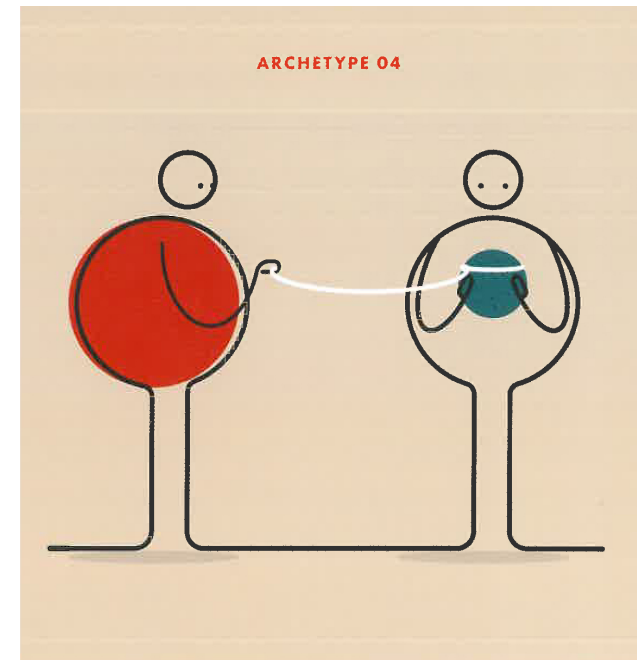
A good example of design that considers the potential role of governing users is the parental control or content-filtering features on televisions, computer games, web browsers and other devices or applications. While there are critics who question their effectiveness or appropriateness, parental control features exist because someone has considered the larger ecosystem of users for these products, including users who

could exert some benevolent control over the experiences of youth and other vulnerable direct users.

Governing use can sometimes seem to be just a particular form of intermediary use, but that's not always the case. As in the case of an adult user configuring parental controls on a television, governing use may establish rules or conditions over someone else's use that are lingering and continuous even though that governing user is no longer actively intermediating. Which raises another point: governing users are not always aware of how (or even if) they are controlling others' experiences. Your dad might have long ago forgotten that he set the filters on his television to only allow family-friendly movies, but that one action still governs what his grown children are able to watch when they come to visit him.

## Things to think about

- » Was our product or service designed with governing users in mind? Should it be?
- » What are some possible examples of governing use for our product or service today? In the future?
- » Are these users aware of their governing role? Are other users aware of these users' governing role? In what ways?
- » Are our governing users governing responsibly or effectively? In what ways is their governing good or bad for other users?



## Governing User

I engage the solution in a way that significantly affects the quality of other users' engagement with the solution

# Dependent User

*"I engage the solution as enabled by another user"*

The Dependent User Card reminds us of ways that users' experiences may be substantially influenced, controlled or determined by another user. This user's dependency on others may be temporary or continuous, partial or all-encompassing. In extreme situations, dependent users' experiences may be so heavily overshadowed by another user that we might fail to see them as users at all.

Dependent users are the opposite of governing users. Simple example: think back to Section 3 and the example of a child playing with a noisy toy. The child may be totally engrossed with the toy, but the child's parents (or any adult or older child, really) might find the noise intolerable and take the toy away. Likewise, all those who have to wait for someone else to enter a password or insert a key or otherwise give the go-ahead before they can access a product or service are dependent users. Who are the dependent users for your product or service and how could you support their experience differently?

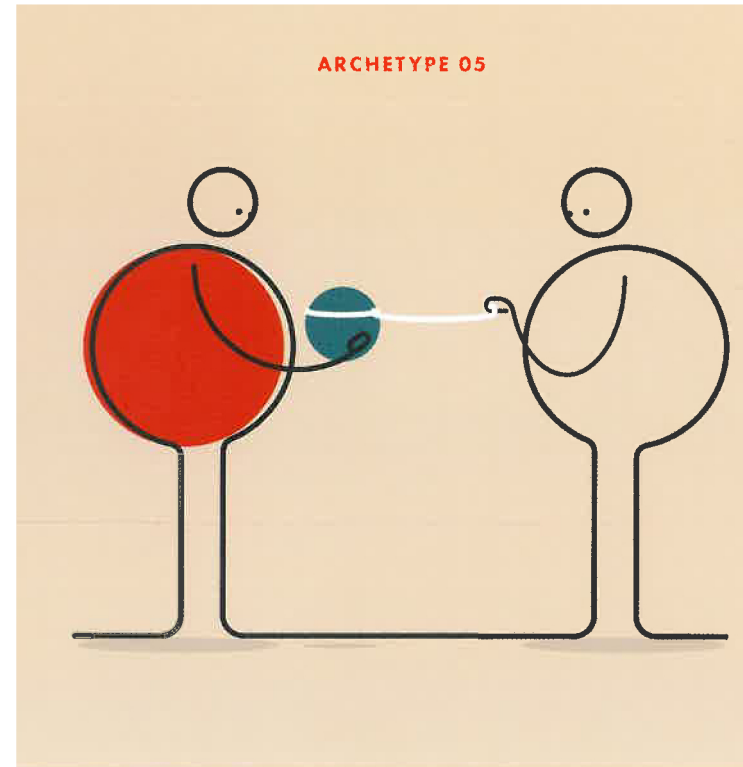
Youngblood, who is 6'3" (190 cm) is painfully aware of being a dependent user whenever sitting in an airline seat (almost always ordinary coach class). In his experience, the user in front of him has nearly total control over whether the flight will be good or bad, simply based on whether that user decides to recline his or her seat onto Youngblood's kneecaps. This is an area where Youngblood, for one, believes airlines could create a better overall flight experience by designing seats with an eye toward dependent users and others in the ecosystem-not just the direct user of the seat (that is, the person sitting in it).

We shouldn't imagine that dependent users are always aware of their dependent status. Their engagement with artefacts may be shaped or controlled by other users without their knowledge. For example, if Youngblood inserted one of those knee-protecting devices into the airplane seat in front of him, the passenger

who is unable to recline might not realize that her seat has been tampered with and that she herself had now become a dependent user. Whether she's aware or not, the effect would be the same.

Things to think about

- » Was our product or service designed with dependent users in mind? Should it be?
- » What are some possible examples of dependent use for our product or service today? In the future?
- » How and why do other users constrain these users' engagement with our product or service?
- » In what ways is dependent status good or bad for these users?



## Dependent User

I engage the solution as enabled by another user



## Parallel User

*"I engage the solution along with others who engage it in a similar way"*

The Parallel User Card helps us think about ways that multiple users, engaging the same artefact in essentially the same manner, can affect each others' experiences in large and small ways. For example, we could think of two or more players in a multiplayer computer game. To the extent that they are all playing by the same rules and are having predominantly similar experiences with the game, they are parallel users. But they do not play in isolation from each other—rather, the players together shape the progression of the game.

A good example of artefacts that were designed with attention to parallel users: web-based applications that enable multiple users to add content collaboratively (such as Google Docs). Think of students doing a team homework assignment together on a single online document, each contributing to the document in more or less the same way from wherever they are.

In the analogue world, here's a good example of an (as yet) missed opportunity, also arising from parallel use. Imagine two people in the same household who are each preparing to take a hot shower in different bathrooms connected to a single water heater. These two people are parallel users of the water heater—but, if neither of them knows that the other is also showering, they might both run out of hot water before either of them is finished. Thinking about parallel users could inspire us to design a shower experience, or a water heater experience, that could avert such an unpleasant event.

Or how about this? Imagine Oscar and Tina want to listen to music together, but they have only one set of earphones. As a workaround, they decide to use the earphones in parallel—Oscar taking the left and Tina the right. Unfortunately, music in stereo is typically mixed differently for each side, so neither of them would be able to hear the songs completely through just one earpiece. What if their earphones gave them the option of a

"shared" mode, blending the left and right channels for listening with a friend?

Parallel use is happening all around us. If you have wandered through the stacks of a library, shopped in a store or driven on a highway, you and all the others seeking information, looking for great things to buy or getting yourselves from point A to point B are, in at least some ways, parallel users.

As we've observed it, parallel use often happens in roughly the same time frame. But it can also be asynchronous. For example, people playing chess online can make moves on the same board, following the same rules, but out of sync with each other—someone might step away from the game and not come back for a while.

### Things to think about

- » Was our product or service designed with parallel users in mind? Should it be?
- » What are some possible examples of parallel use for our product or service today? In the future?
- » When and where are parallel users engaging our product or service? At the same time? Same place?
- » In what ways do parallel users support or inhibit each other?

## Complementary User

*"I engage the solution along with others who engage it in a different way"*

Complementary users have some affinity with parallel users except that they engage the same artefact in basically dissimilar ways (unlike parallel users who engage in basically the same ways). The Complementary User Card foregrounds this way dissimilar users can be connected to each other and raises questions about how their different ways of engaging a single solution can influence user experiences-their own and others'.

Public parks and plazas can provide vivid examples of design that did or did not pay attention to complementary users. Think of dozens or hundreds of people spending a day in a park-some may be walking a dog; others may be having a conversation with a friend or reading a book. And others might be enjoying a picnic lunch. Is the space designed to support multiple variants of complementary use or does it bring these users into conflict with each other?

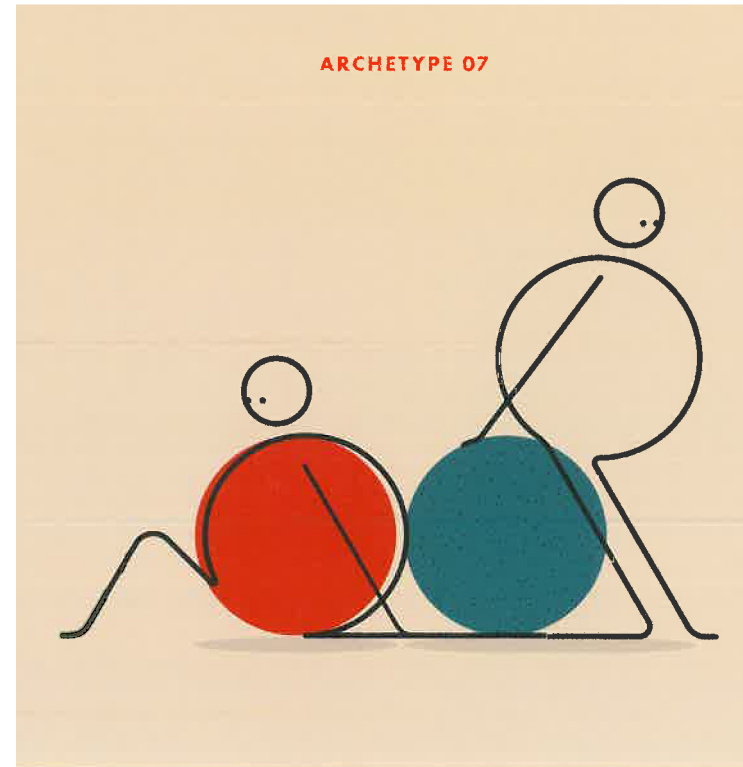
We might take it for granted that public spaces are designed with complementary use in mind, but this is not always the case. Urbanist William H. Whyte, who ran a project that studied public spaces in 1970s New York City, found numerous examples of spaces that intentionally or unintentionally excluded many potential users. Whyte made the case that the most successful and desirable urban public spaces are those that support a plethora of diverse complementary users, all able to comfortably use the same park or plaza or street corner for different purposes. (Whyte didn't actually use the term "complementary user"; but we think he might have approved.)

Another example could be the many different uses a single household can find for the same laptop computer. This laptop could primarily be one person's conduit to work-email, word processing, spreadsheets-but another person in the household might use the same laptop as a gateway to the internet, serving up news, video, e-commerce websites and such. A third person

might use the device as a gaming platform. These three people are all complementary users of the laptop. Current laptops would make it challenging for all three of them to engage in these different ways at once. What could it look like if we tried to design new solutions that enabled these complementary users to use a single computer at the same time?

### Things to think about

- » Was our product or service designed with complementary users in mind? Should it be?
- » What are some possible examples of complementary use for our product or service today? In the future?
- » Are complementary users aware of each other when they are engaging our product or service?
- » Do complementary users engage the solution with similar goals or expectations? Or conflicting goals and expectations? Do they support each other or inhibit each other?



## Complementary User

I engage the solution along with others who engage it in a different way

## Serial User

*"I engage the solution in a series of other users engaging the solution"*

The job of the Serial User Card is to call our attention to users who engage artefacts in a sequential chain made up of other users who engage the same artefact. Serial users often appear to be ordinary direct or indirect users until we refocus our ecosystemic lens and view their experience in relation to other users. Their defining aspect is their relationship with an artefact in sequence with these other users.

Some products and services have been designed quite thoughtfully for serial use. Consider, for example, car lending services such as Zipcar or ShareNow. The experiences of users of these services is as much defined by the user preceding them, who may have left the car full of dog hair or the gas tank empty, as it is by the type of vehicle or the particulars of the service. Hence, these services have built in rules and incentives and feedback mechanisms to nudge users toward behaviour that could enable a good experience for the next user in the series. It's hard to imagine these businesses surviving had they been designed without this ecosystemic understanding-and in fact, the "Frequently Asked Questions" sections of "sharing" service websites are, to a great extent, a handy and ever-evolving catalogue of all the ways the service is aware that serial users are able to affect each other.

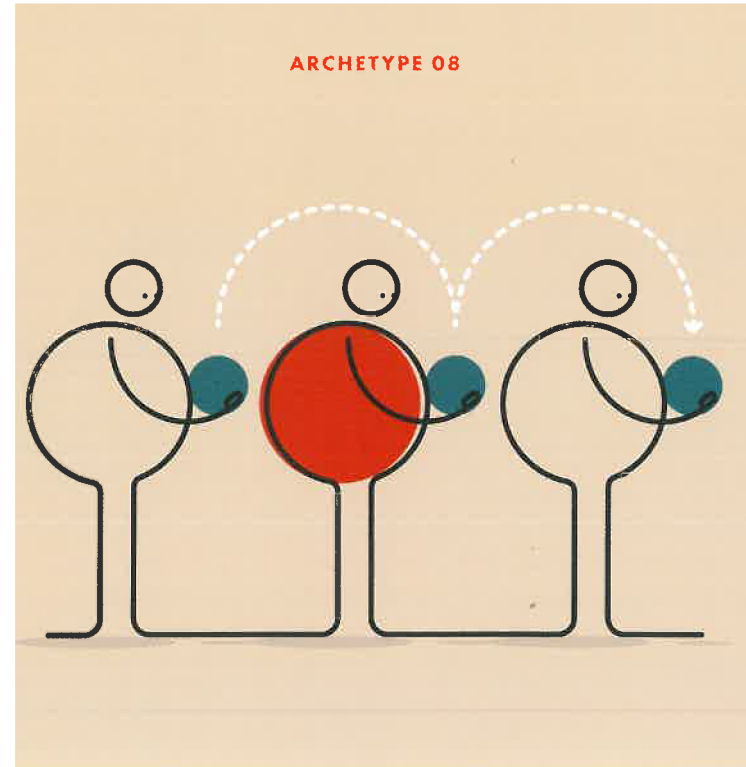
In other industries, however, we see a great deal of untapped opportunity to improve user experiences by spending more time thinking about serial users. For example, anyone who has convened a meeting in a room used by different teams in the same company and struggled with how to use the room's audio-visual projector, because of how the last group of users left it, has experienced unsupported serial use.

Another example where we think there's a lot of opportunity is in public bathrooms. Some cities have adopted self-cleaning public toilets, like the sanisettes of Paris, but think of how many

restaurants, coffee houses, office buildings, train stations or other places you've been in where the main room experience may be excellent, but the toilet experience is miserable because prior users left a mess for the next user to encounter? How could these establishments improve overall experience through greater attention to the role and impact of serial users in the loo?

### Things to think about

- » Was our product or service designed with serial users in mind? Should it be?
- » What are some possible examples of serial use for our product or service today? In the future?
- » When and where are serial users engaging our product or service?
- » In what ways do earlier users in the series impact the experiences of later users?



## Serial User

I engage the solution in a series of other users engaging the solution

# Surrogate User

09

*"I engage the solution as a stand-in for another user"*

The Surrogate User Card reminds us that sometimes people engage products and services on behalf of, or in place of, another user. Surrogate users are often easy to overlook because they may be merely an occasional or temporary stand-in for our "real" user. But the opposite can also occur—if the surrogate's role is routine and ongoing, we may actually mistake the surrogate user to be the only user of significance.

Surrogate use is not as abstract and theoretical as it might sound at first. Imagine walking into an elevator with both arms full of bags and asking another passenger to press the button for your floor. That passenger is, in that moment, a surrogate user of the elevator's controls on your behalf. We see surrogate users often in health care or other contexts in which an intended user may be temporarily incapacitated and require assistance to do things such as take medication, eat or bathe.

For example, when Youngblood was conducting research on diabetes during a design project for insulin self-injection pens, he found many scenarios in which these devices were operated by family members or other care givers on behalf of the actual "user"—even though they were intended for "self-injection". This led the design team to reimagine the labelling and instructions on the device to make its use more intuitive for surrogate users who may not be patients themselves or have much experience giving injections.

Overlooking surrogate users or failing to understand their surrogate role is a design hazard. This is because surrogate users can often have distinct expectations, capabilities or needs compared to the users for whom they play surrogate. Think of substitute teachers, who are a recognized and integral part of the educational system in many countries. These teachers are surrogate users of tools, information systems and other resources that are normally used by the regular teacher who may now be

impossible to contact (such as if they are home with the flu). Anyone who has worked as a substitute teacher, has had one substitute for them, or has taken a class from one knows how important it is for tools and environments to provide this surrogate user with the support they need to be effective.

Surrogate users may, at times, provide enormous—even life altering—benefits to the users they stand in for. But, in some situations, a surrogate user's goals might be in conflict with the "real" user's goals. The Surrogate User Card reminds us of the nuances of this role that make it particularly important for us to consider scenarios of surrogate use and ways to support the best outcomes for the key users involved.

## Things to think about

- » Was our product or service designed with surrogate users in mind? Should it be?
- » What are some possible examples of surrogate use for our product or service today? In the future?
- » What is the experiential relationship between these users and the users they are standing in for?
- » In what ways do surrogate users help or harm the users they are standing in for?



## Surrogate User

I engage the solution as a stand-in for another user

# Terminal User

*"I engage the solution as the focus of its use by another user"*

The Terminal User Card calls our attention to ways in which users can be on the immediate receiving end of another user's engagement with an artefact. Terminal use is not always entirely passive, but it is typically more passive than active. Also, although the name of the archetype might make it sound like being a terminal user is scary or hazardous, terminal use is not necessarily a good experience or a bad experience. (Remember: real people have emotions, but the archetypes do not.)

Like other users, terminal users are very often ignored or overlooked. But terminal users are everywhere. For example, think of a dentist using a drill to repair a cavity in a patient's tooth. Both the dentist and the patient are having a personal experience with the same artefact (the drill), but in this scenario these are very different users and experiences. The dentist is an active subject, while the patient is for the most part a passive object of the dentist's action. The patient is the terminal user.

If thinking about dentistry is outside your comfort zone, imagine customers getting their ears pierced by a person wielding a piercing gun or having their hair trimmed by a barber with noisy, vibrating electric clippers. Or, to refer to a previous example, if you are a diabetes patient and you're receiving an insulin injection from someone else, you are then the terminal user of the injection pen. For designers of these devices, it would be a mistake to only consider the experience of the person most directly handling the object. Clearly, the terminal user's experience can be just as important as the direct user's.

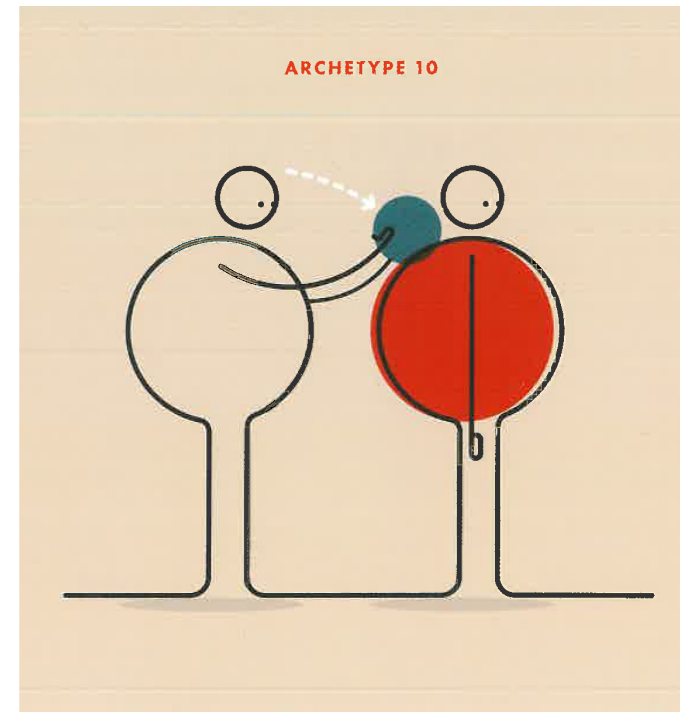
These examples aren't outliers. For example, Chesluk remembers one project where a client's team of expert designers and engineers of surgical technology were shocked to learn that, in some non-hospital clinical settings, patients might actually see some of the surgeon's tools before the anaesthetic takes effect. Did this mean they now had to design their products to be

visually reassuring (or at least non-threatening) for the *patients'* experience? The perspective of the terminal user was something they had never thought about before.

Terminal use is not only relevant for tangible tools and other products but (as with all the archetypes) services as well. For instance, if Arnold places an order for something to be delivered to his customer, Maria, we could think of Maria as the terminal user of the delivery service. As we can all imagine, it would be bad for business if the delivery company focused its service design only on the paying customer, Arnold, and overlooked Maria's experience on the receiving end.

## Things to think about

- » Was Olli product or service designed with terminal users in mind? Should it be?
- » What are some possible examples of terminal use for our product or service today? In the future?
- » Are these users' experiences consensual? Desirable? How so?
- » What is the user relationship between terminal users and other users?



## Terminal User

I engage the solution as the focus of its use by another user



# Ambient User

*"I engage the solution through its effect on my immediate environment"*

Our most conventional conceptions of users and user experience usually assume that "use" involves clear points of interface between artefacts and users-specific objects, surfaces, messages, touchpoints or sites of interaction. The Ambient User Card points to user experiences that are more dispersed, mediated by the user's and the artefact's shared environment. This nature of the interaction can make ambient use difficult to perceive.

Some products and services are always designed with ambient users in mind because these users are essential to their business models or the very nature of the artefacts themselves. For examples, think of people sitting in an air conditioned room, enveloped in cool air despite sweltering heat just outside. These people are ambient users of the air conditioner-and air conditioner designers probably think about them a great deal.

Likewise, if you've ever been in a waiting room or an elevator, surrounded by canned music that's piped into the space, you were an ambient user of that music system and its playlist; the designers of these probably spend a lot of time thinking about the experience of ambient users such as you. True and related story: urban convenience stores in the United States and other countries sometimes play classical music over loudspeakers in their parking lots to dissuade (presumably) classical-hating teenagers from turning those parking lots into hangout spaces. This design is for a *negative* ambient user experience.

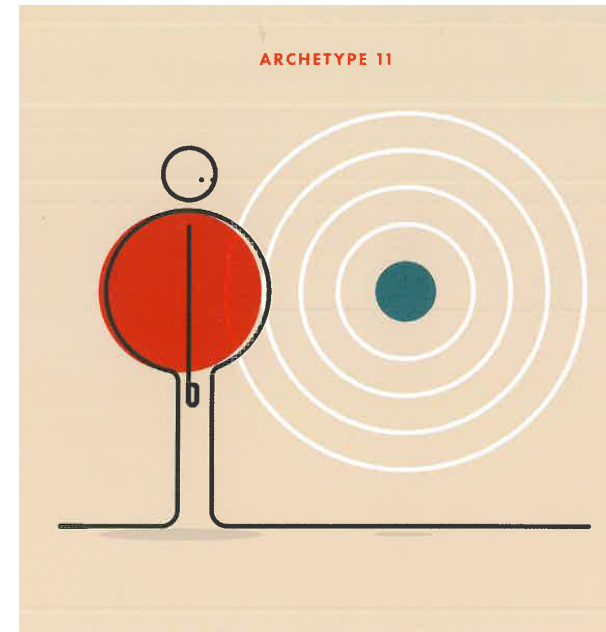
But this archetype is not really about the user's *senses*, it's about the artefact's effect on the immediate environment and the user's experience of the artefact through that altered environment.

Ever noticed how some stores or hotels have a very intentional "signature" aroma? Somebody designed that aroma-and they designed it for ambient users. Similarly, Harley-Davidson

motorcycles are built to emit a recognizable deep, rumbling engine noise that makes them sound like a Harley. This noise appeals to the ambient user aspect of riders and passengers, as well as anybody else who hears a Harley passing by.

These sorts of user experiences seem to offer a lot of potential for a wide range of products and services, but we'd wager that ambient users aren't given as much attention as they deserve. For example, ambient users of tum-by-turn driving navigation apps-the people who used to live in quiet neighbourhoods before the app began routing speeding, honking traffic to their street-probably (and correctly) feel that they were neglected by the app's designers. And remember our story about Loud Man shouting into his mobile phone on a crowded train? That was super negative ambient use-but probably not because design-ers intentionally made it to be that way.

- Things to think about
- » Was our product or service designed with ambient users in mind? Should it be?
- » What are some possible examples of ambient use for our product or service today? In the future?
- » How active or passive are these users' engagements with our product or service?
- » What are the advantages or disadvantages of being an ambient user of our product or service?



## Ambient User

I engage the solution through its effect on my immediate environment

## Conglomerate User

*"I engage the solution intimately and consciously, as an add-on or extension of myself"*

The Conglomerate User Card calls our attention to experiences that involve close, personal mixing of subjects and objects. These are very intimate experiences with a design artefact-sometimes so fundamental that the artefact almost seems like an extension of the user's self.

Many industries have begun to focus on products and services for conglomerate use. Think, for example, of users of wearable devices such as a Fitbit that offer constant and almost seamless biofeedback and behavioural monitoring. You might also think of users of augmented reality devices such as the infamous Google Glass-the prototype internet-connected eyewear that promised to make your world so much cooler by overlaying digital information on top of everything you saw. Other contemporaneous examples include Paralympic athletes and their high-performance, specialized prosthetic devices.

Many social media platforms are also aimed at conglomerate use. You might have experienced for yourself how these artefacts increasingly push their users to routinely and instinctually rely on the platforms as their link to the social world-leading users to experience them, effectively, as an extension of themselves.

Conglomerate use may seem like a very 21st century user experience, but we can also see many examples of conglomerate use further back in history: for example, users of contact lenses or dentures. Dentures, apparently, go back to around 700 BC. As many Americans know (though we're not sure why this is common knowledge) George Washington, the first president of the United States, had dentures back in the 18th century. But, contrary to popular belief, they weren't made of wood, but rather a combination of human and animal teeth, ivory and various

metal alloys. So, there you go. Now you can win the dinner table conversation by telling your friends that George Washington was a conglomerate user.

### Things to think about

- » Was our product or service designed with conglomerate users in mind? Should it be?
- » What are some possible examples of conglomerate use for our product or service today? In the future?
- » Can conglomerate users bond as fully with our product or service as they want to?
- » Are these users able to disconnect from our product or service as fully as they want to?



## Conglomerate User

I engage the solution intimately and consciously, as an add-on or extension of myself

# Autonomic User

*"I engage the solution automatically, unconsciously and seamlessly"*

The Autonomic User Card pushes us to think about user engagements with products or services that are effectively seamless. Autonomic users are conceptually similar to conglomerate users in that both are archetypes of extremely intimate user experiences-but we've found it useful to differentiate between the two. The key difference is consciousness.

While conglomerate users are generally conscious of the artefact (can you imagine George Washington forgetting that he had ivory-animal-alloy teeth in his mouth?), autonomic users are so thoroughly unified with an artefact that they are mostly or completely unaware of it. Where is the line between subject and object?

The medical field has made great strides in creating autonomic user experiences. An implanted cardiac pacemaker is one example. If it's working as intended, there is no conscious engagement between the user and the pacemaker. Other examples include other types of implants, such as an artificial hip or an IUD. A person wearing contact lenses that need to be consciously removed every night is probably a conglomerate user-but people who've had their vision corrected with really good intraocular lens implants might be autonomic users.

As you can tell from these examples, we tend to think of autonomic users in terms of *bodily* union with an artefact. But other configurations of this relationship are possible. For example, think of "smart homes" and other technology-infused environments that seamlessly connect people with design artefacts, often without the user even being conscious of the interaction. If your house turns on the lights and cues up your favourite music just before you open the front door, you may be an autonomic user. At least, once you're sufficiently accustomed to this service that it no longer feels super weird.

## Things to think about

- » Was our product or service designed with autonomic users in mind? Should it be?
- » What are some possible examples of autonomic use for our product or service today? In the future?
- » Should these users be aware of their engagement with our product or service? Should other people or things be aware?
- » Are there ethical implications of these users' engagement with our product or service?

These sorts of autonomic use seem almost guaranteed to become more prevalent in the decades ahead. What could autonomic use look like with a vacuum cleaner or a refrigerator? What about services like banking or entertainment?



## Autonomic User

I engage the solution automatically,  
unconsciously and seamlessly



# Oblique User

*"I engage the solution through the by-products of others' engagements"*

The Oblique User Card pushes us to contemplate people at the far outer edges of the user ecosystem. It asks us to imagine experiential possibilities that can be more difficult for us to see; namely, the experiences of those users who engage products or services via the residue of other users' engagements. Oblique users may be distant in time or space from these other users, but not necessarily.

For an example of an oblique user, think of somebody scavenging for discarded materials in a garbage dump. This person has a user experience of the designed artefacts in the waste pile, but the experience is almost certainly very different and very far down the line from the experiences that designers had in mind when they created those things. At the very least, this user is interacting with these artefacts beyond the end of their designed lifespan.

Of course, there are different reasons to obliquely use waste materials. Oblique users might be reusing things as they are, for instance, collecting discarded plastic bottles to store water in their home. Or they might be gathering material to sell to recyclers, or recycling products themselves—think of people making a business out of recharging empty fire extinguishers or refilling used printer ink cartridges.

Some oblique engagements are not at all positive for oblique users. Consider a farmer whose crops are contaminated by chemicals used in a nearby industrial operation. The farmer and the customers buying tainted produce can all be considered oblique users of those industrial chemicals.

Why should we care about oblique users? One answer is because, in many instances, these users are vulnerable to the "downstream" negative impacts of a product or service. Considering their experience can make us more mindful of those consequences as we make decisions about materials, manufacturing

processes and other dimensions of artefact design. Another reason to care is because oblique users could represent real business opportunity. For example, designing a product for repurposing at the end of its normal useful life could open up opportunities to engage oblique users as downstream customers, creating new value.

## Things to think about

- » Was our product or service designed with oblique users in mind? Should it be?
- » What are some possible examples of oblique use for our product or service today? In the future?
- » What other users in the ecosystem have a role in oblique users' engagements?
- » In what ways is oblique use positive or negative for these users?

## ARCHETYPE 14



## Oblique User

I engage the solution through the by-products of others' engagements

# Generative User

*"I engage the solution in a way that alters the solution itself"*

The Generative User Card prompts us to think about users engaging an artefact in ways that alter the nature or function of the artefact as they use it. This creative effect may be intentional, unintentional or even unconscious. Generative users' impact may be positive, negative or merely neutral for themselves or any other users. The key idea is that generative users' engagement necessarily alters the design artefact that they use.

Some artefacts are designed to welcome generative use. Open source software, for example, is very clearly built to enable users to make significant changes. These changes may affect small, specific communities of similar users or they may affect a great many users in a broader ecosystem. Wikis, such as Wikipedia, are similar, because they invite all users to edit their content for engagement by all others. You might even say that some of these artefacts are designed to use their generative users to further their own development.

Often, however, when we design with generative users in mind it is with the aim to resist them rather than welcome them. Product and service designers of the 21st century spend a great deal of time innovating ways to patch holes and weaknesses that could inadvertently enable outside users to hack or otherwise make changes to what they have created. This effort makes sense if these designers are warding off malicious users intending to do damage, but it may not be the best strategy if they're also blocking potential generative users with more constructive or benevolent intent.

Sometimes what initially may strike us as negative generative use turns out to be perceived as positive. Public space designers, for example, often focus on ways to prevent graffiti artists from altering walls and other surfaces-but the public sometimes comes to value these contributions. For example, the artists and activists who painted murals on the Berlin Wall before German

reunification were generative users-their contributions helped to convert a strictly functional, oppressive artefact into a canvas for social criticism and cultural expression, parts of which are now preserved as an outdoor art museum.

Most often, we end up disregarding generative users in the products and services we design. This is mostly because we typically dread the idea of losing control of our product or service. What kinds of opportunities might we be missing by designing products or services that overlook or resist generative users?

## Things to think about

- » Was our product or service designed with generative users in mind? Should it be?
- » What are some possible examples of generative use for our product or service today? In the future?
- » Are these users' alterations positive or negative for their own experience? For other users' experiences?
- » How fundamentally do these users alter our product or service?



## Generative User

I engage the solution in a way that alters the solution itself

## SO, THAT'S ALL OF THEM?

No, not necessarily.

We think these 15 User Archetype Cards are enough to get your team thinking differently about users-but we don't insist that they cover all possible forms of user engagement. You may think of additional kinds of engagement that are provocative for your specific area of work. In which case, kudos! (That's what the blank cards are for.) But if you do decide to create archetypes of your own, be sure to refer to the guidelines at the beginning of this section that we followed when we were going through the same process. Otherwise, as initially happened to us, you might end up adding archetypes upon archetypes that seem useful in the moment but may lead you nowhere.

## LET'S NOT BE OVERLY LITERAL

For simplicity, we've illustrated the archetypes interacting with solutions that are tangible and thing-like (that cool blue orb). But don't get hung up on those images! These archetypes work for environments, services and other intangibles as well

## EMBRACE FUZZY BOUNDARIES

One last note on the User Archetype Cards. Did you notice that some of the archetypes feel a little more specific than others? As we mentioned earlier, the archetypes sometimes overlap with each other or seem to nest under other archetypes. This is not an accident. The archetypes are all thinking tools, each intended to spark new questions and insight in different ways.

## FIFTEEN USER ARCHETYPES, ONE KITCHEN

Now that we've described the 15 user archetypes, let's look at how all these forms of user engagement could apply to a single, specific ecosystem. For our example, let's picture a shared commercial kitchen "incubator" facility, a kind of business becoming increasingly common in some parts of the world, in which food start-ups and small businesses can rent dedicated space or pay by the hour to prepare food.

It's easy to identify a *direct* user in this kitchen: the entrepreneurial cook renting space to make a food product. An *indirect* user could be a business partner or family member who

doesn't work alongside the cook in the kitchen but tastes the product and gives advice. *Intermediary* users might be friends who prep the kitchen space before the strapped-for-time cook actually arrives.

The on-site managers of the kitchen could be seen as *governing* users, as could local officials who might drop in to conduct safety inspections. A *dependent* user might be an intern or trainee using the kitchen under the cook's supervision.

All the different cooks working alongside each other could be considered to be using the kitchen in *parallel*. Some might be using the same space in very different ways-one spending hours experimenting with new recipes or ingredients, another briefly stopping in to put finishing touches on something they started at home, a third getting feedback from fellow renters on new package designs-in which case they could also be considered *complementary* users.

*Serial* users might be cooks who rent the same space within the kitchen for an hour or two at a time, one after the other. A *surrogate* user is perhaps someone who temporarily steps in for a renter-say, someone taking over for a friend who has to leave unexpectedly, before their product is done.

A restaurant employee picking up food made in the kitchen could be a *terminal* user. Pedestrians walking past who have to step around cooks loading or unloading could be considered *ambient* users of the kitchen, as could workers in adjacent buildings who might be able to hear or smell the kitchen in use.

*Conglomerate* users of a commercial kitchen might be cooks who use hands-free voice commands to set timers and adjust oven temperatures. And an *autonomic* user could be someone using a future-state kitchen that knows to reset and adapt itself as new users arrive or leave.

An *oblique* user is perhaps someone who scavenges the dumpster behind the business for food or worn-out kitchen equipment. Finally, *generative* users could be creative cooks who alter the shared space and equipment to change what they and others can make there.