

USABILITY IS A MEANS, NOT A GOAL

Lost Boys content & usability, Bas Raijmakers, May 2001.

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Usability testing stimulates two dialogues to make your business more profitable

This chapter is structured around two dialogues. The first one involves the owner of the service interacting with the developer of the service during development. The second involves the owner of the service communicating with his customers when the service is online. Usability research facilitates and stimulates these two dialogues and makes them much more efficient. This results in all kinds of benefits with ultimately the most important one: a more profitable service for the owner and a more pleasurable experience for the user of the service. Another result is more satisfied clients for the creators of such online services and more durable relationships with them. Usability testing is a means to these ends, and not an end in itself.

Users offer reality check

This book contains different viewpoints, for many disciplines are involved in developing and maintaining a website.

Possible online service owner viewpoints:

- CEO
- project manager
- marketing manager
- product manager
- communications manager
- business developer

Possible online service developer viewpoints:

- designer
- copy writer
- project manager
- account manager
- business consultant
- programmer

Researcher and user always confront the owner and the developer, responding to the viewpoints of owners and developers with independent answers based on the reality of the user. The user offers a plain, simple reality check.

Many paragraphs start with dialogue between owner, developer and user. The researcher is sometimes introduced as the spokesperson for the user, interpreting his comments. These dialogues illustrate the benefits of usability testing. They come from my daily practice, inspired by our usability testing over the years. If you need examples of the results usability testing might give you quickly, you can browse through the dialogues to collect examples of the kind of input users would give.

The dialogue between developers and owners of the online service

The owner (commissioner) and the developer of the new online service are in constant dialogue. It evolves from the first moment of contact, usually the invitation to participate in a pitch for a new site, to the final moment, usually shortly after the service goes online. In this discussion there is a two-way knowledge transfer. The owner explains many things about current customers and market position to the developer. The developer explains internet users in detail to the owner and often talks about the position of the new online service on the internet too. These discussions are seldom clear and simple. Both parties talk about the future users of the service, but from different viewpoints. Both parties are probably right on many issues, but they also frequently contradict each other. Who is right, what is wisdom? Usability testing can be of great help in these discussions because it brings the opinions of the user to these disputes, and the user is someone to whom both parties want to listen. The user is allowed to have the last word and resolve the discussion. In these situations usability testing maximises the efficiency of development of new services: it cuts long discussions short, and it makes sure users can understand and use the service well.

A whole range of benefits flows from discussion between the owner and the developer of new services. They involve:

- Cost containment: What helps to save costs?
- Support for strategy development: How to understand user needs?
- Maximising efficiency: How to prevent development of unnecessary and badly understood services?
- Gaining knowledge: How to stay one step ahead of your competitors?
- Understanding the user: How does the user act and what does he think?
- Creating stronger relations: Does usability research help?

Usability testing is cost effective

Website owner, CEO	Website developer, Account manager	User
"Usability testing will only raise the budget. Let's first make sure we have something online, and then we can have a look at how it is valued."	"Usability testing is important to do before the site goes online. But it shouldn't cut away a big part of the total budget and it shouldn't slow down the development process."	"When I visit a site for the first time it has to give me appropriate information quickly, and it has to feel right. I won't return otherwise. They get one chance."

<p>"I want to be sure our new website connects well to the needs of our customers. We have to build this service first time right."</p>	<p>"When you develop new services for your customers, you can't predict how they will react, building on existing market research alone. You have to test new concepts with your existing customers or you risk creating a service nobody wants or understands. You might just as well flush your money down the drain."</p>	<p>"I 'm always eager to try out new things on the web. It's exciting because I often surprise myself. Dull ideas can turn out to be quite handy and smart ideas can turn out to be useless. Good ideas have clear added value to what I'm using now, that's vital if you want me to return as a customer."</p>
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Usability testing almost always saves costs because it makes sure the money spent on development is well spent. Testing brings the certainty that you do not drift away from the user, the service target group. Drifting away can be very costly if at a very late stage (or worse, after the service has gone online) it becomes clear that the service has to be completely or partially rebuilt. Spending money wrongly is the same as throwing money away.

The extra budget needed for adjusting or rebuilding is seldom immediately available. That implies that the changes necessary will have to wait until the next round of financing or the budget of next year. This hampers the service in its struggle with its competitors. The owner of the service is debilitated because he gets less revenue from the service than he expected.

Usability testing is time saving

Website owner, CEO	Website developer, Account manager	User
<p>"The new site has to be ready for the expo in Milan in two months time."</p>	<p>"With so little time, we 'd better make sure we know exactly what the user wants and understands before we actually build it. We'll have no time for repairing big mistakes just before launch."</p>	<p>"If I get to a new homepage and I do not immediately understand what the site has to offer me, I'm outta there."</p>
<p>"The new site has to be ready for the expo in Milan in two months time. We should focus on something small but really smart. Something to make everyone say " Why didn't we think of that?"</p>	<p>"With such a tight schedule we'd better leave out all the extras like usability testing. We have to focus on getting something online."</p>	<p>"Sometimes new services have a really smart offer, something you've been waiting for a long time. But then they present it in a way that makes it really hard to use - and pfftt!, the magic is gone."</p>

Services are usually developed within tight time schedules. This is due to launch dates connected to upcoming events and the wish to be first to market. Also, the need to maintain a firm grip on costs requires tight time schedules: if you spend more time, you spend more money. Adding usability often feels for both owner and developer like adding another competence to the already crowded team and another task to the crowded time schedule. Other competencies fear they have to do the same work in less time. Project managers fear that they will have to bring the complete process to a standstill for testing. I have heard all these reasons for not doing usability testing numerous times. They are not true, however: if planned well, usability testing saves time and can be conducted without putting development on hold.

Time is saved because in the development team needs less discussion time. Usability testing provides the answers to debates recurring in every development team. 'Will we use a dropdown menu or a completely visible list of categories?' 'Where to put the search box?' These debates can become quite religious. Beyond a certain level, people are no longer able to convince each other with arguments, resulting in few solutions supported by the team. This process costs a lot of time and, even worse, the quality of the outcome is anything but clear. A usability test can cut the discussion short and come up with the right solution.

The development process does not need to stop for a usability test. Testing during development should be small scale and take no longer than a few days, from interviewing to reporting. Most development may continue even during these few days because the results will influence only parts of the service. A project manager can integrate it with other tasks particularly when usability testing is included in planning from the outset. So almost no time is lost.

On the other hand, if the team discovers it has overlooked a usability issue somewhere (usually late) during development, and it has to retrace one or more steps, a lot of time is lost. Usability testing prevents this happening in many cases.

Usability testing increases return on investment

Profitability is the main goal of any company that puts parts of its service online. This can be achieved through higher revenue or lower costs. Building, upgrading or extending online services involves investment in developing the service. Keeping costs low during development, by either cutting down on out of pocket costs or by time management, has a direct impact on the profitability of the service. Usability testing helps to keep costs low which makes it an important tool for increasing profitability of online services.

Usability testing helps strategists understand user needs

New online services do not only involve change for their users, they also change the service itself. The organisation offering the service will have to work differently, for example keeping a website updated is completely different from publishing a new line of brochures every year. Customer care through email is different to customer care through a callcentre. And last but not least: customers may well have different demands online, response times may have to be shorter for example and most

requests may come outside office hours. These kinds of issues should heavily influence the business strategy of the service owner.

User related issues are only able to influence the early stages of development when it is known what online users expect and why. Doing a usability test very early on, with existing related online services for example, will make it clear that the business changes when it is brought online. Thus, usability research will raise sensitivity, in the development team and the organisation of the service owner, to the changes the service owner's business is about to go through. This sensitivity is important. It can open the way to more reflection on the changes (also internally) that are induced by the new online service. If reflection is followed by action before the service is launched, a lot of trouble and loss of revenue, due to an understaffed helpdesk or sales team for example, can be avoided.

Improve connection to existing online and offline services through usability testing

Website owner, Marketing manager	Website developer, Strategist	User
"We know exactly who our customers are, what their needs are and why they like our offline services. We can easily translate that knowledge to online services ourselves."	"Online customers are distinctly different from offline customers. But we know offline customers in general quite well and we can apply that knowledge to this specific business."	"Some new online services boldly assume that you'll throw away what you have just like that. But it's not that easy. When I get a great offer for a permanent holiday insurance online, I need to get rid of my current insurance first. Who will help me do that just before I leave?"

Online services do not exist in a vacuum. They enter the already crowded world of the user. People already have their ways of fulfilling their needs, let's say banking, offline and online. They have an understanding of what banking is, and why and how it is relevant to them. New online services have to compete with those images and habits. All too often people will think 'If it ain't broke, don't fix it.' A completely new consumer or professional need is seldom discovered. And even if the need is new, users will still try to understand it by comparing and connecting it to things they already know or have heard of before.

The development team needs a thorough knowledge of the intended user's world into which the new service will have to enter. What existing services are important to the user and how does he judge the usefulness and friendliness of these services? Usability testing of related services (possibly from competitors) at a very early stage during the development, will give a clear picture of the world where the new online service is to jostle for position. It will help to excavate a niche and connect the new service firmly to other, related services that the consumer or professional will keep using. Obviously this will lead to more satisfied customers.

Usability testing prevents development of services that are useless to or not understood by the user

Online service owner, Sales manager	Online service developer, Designer	User
"We expect a lot of extra sales from a new tool that allows our customers to create a personal wish list online of the books they might want to order later."	"That might be a great service, but do we know when people would use that feature and why they would like it? Will they understand the benefits to themselves? We need answers to decide where and how to present this feature."	"Wish lists online? Is that for telling my friends which books to give me for my birthday? I'm not altogether sure they'd like it if I sent out emails inviting them to look at my online wish list..."

Introducing completely new ideas is always hard because you need to put a lot of effort into explaining to people just what use they are. It might be necessary for people to use a new service before they can understand it. On the other hand, when you introduce a new online service you don't want to create and market it completely (i.e. spend all your money) before you have at least a little certainty that your target group can perceive a good use for it and will probably really use it.

Before embarking on a costly development process, at least some need assessment and need understanding should be done. Market research (online or via telephone) among a representative panel of your target group will give you some numbers and opinions. The value of this traditional research is limited when researching something so new to your target group. I know from experience that they will have difficulty answering accurately, and with this kind of research the researcher is not present to provide further explanation. You cannot explore issues you did not expect to come up either. To get good responses, the researcher will have to listen carefully for new ideas and suggestions from the user and elaborate on these during the interview. User experience research overcomes these limitations through a method called participatory observation. It involves spending time with some individuals among the new service's intended customers, observing them doing their daily chores in their own environment and interviewing them at the same time. This will give you a deeper understanding of the needs and habits your future users have today. That inspires further development of the service and is a useful point of reference for the whole team during development of the service, from strategy to launch.

Once a concept connecting to the real needs of the target group is defined, it has to be communicated to them. During the early concept development stages of a project, it is already possible to test if users understand the concept. The development team has to come up with a story, in words, images or sound, whatever they consider appropriate, which explains the concept to the user. This story (a scenario or some sketches may be enough) has to be put to a usability test, to determine if people understand it. A concept can be very useful but if nobody understands it, it will simply not be used. When that happens, the story has to be told differently and tested again, until it is eventually told in a way comprehensible to the target group. Only then should the development team move on to actually building the service.

Usability testing silences discussion in the development team

Online service owner, communications manager	Online service developer, Designer	User
"We need a home button on a very prominent location on every page, because people need it as anchor they can always rely on when they get lost."	"Normal navigation should provide enough clarity as to where you are on the site. A homebutton on every page is fine but it needn't be very prominent."	"I often get lost at websites, specially the large ecommerce sites where you spend a lot of time looking for the right product. My solution is always to hit the back-button in the browser until I see an overview page that I can use to move onwards again."

Developing a new online service provokes many discussions both at the developer's and the new service's owner, as well as between them. It is very hard to keep discussions clear and short as very little factual knowledge is available, especially when developing really new services. There is only one solution to that: the development team (owner and developer together) must acquire its own knowledge that everyone can agree on. This knowledge will silence discussion and keep the development process efficient.

Knowledge can partly come from vendors of relevant statistical information. This is mostly useful for determining how many people have certain hardware and software installed and gaining some basic figures on the current use of services. These channels will not predict how and why people will use a service they do not yet know. Also general data on the use of fold out menus, the location of a home button and other such detail is not available since the answers strongly depend on the actual design of the service. Simply inviting or visiting users, and interviewing and observing them, will bring the additional knowledge you need.

Owners and developers stay one step ahead of competitors who do no usability testing

User	Online service developer, Designer	Online service owner, Communications manager

<p>"I always like to try out new things, so I would use this online supermarket even now while it is still quite hard to use. I think it's important to see products, I like the big images. Even better might be if I could roll my shopping cart through a virtual alley and drag and drop products into it."</p>	<p>"Users can tell you what they think is important, in this case large images, and that supermarket shopping need not be a boring task that has to be accomplished a few times a week. The solutions they come up with are seldom exciting but the description of the experience they are looking for is very inspiring."</p>	<p>"Research has shown that browsing is a way of online shopping that enormously stimulates impulse buying compared to searching through a search engine. We will have to find out how online browsing can be a satisfying or even exciting shopping experience."</p>
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Users can be a great source of inspiration for both developers and owners of an online service. It is important to use that source if you want to make a service that reflects the needs of the user, instead of the structure and procedures of the organisation of the owner of the service. Although users cannot tell you what exactly they want in the future, they can tell how they do things (like shopping online) now and what they like and dislike about it. Neither a concept designer nor a marketing or communications manager can come up with information like this.

I think it is an advantage that users are not able to be specific about what new service they want. For it creates space for the developers of the service to use their professional skills. It is often believed that usability testing at an early stage (of competitors' services, your own service, or early concepts for example) puts constraints on the creative team. This is not the case, indeed usability testing gives them invaluable inspiration for their work. It also serves as a source of inspiration for marketing and communication managers as they learn to understand why people use the service, what are its unique selling points and what are its shortcomings. That is qualitative information you cannot get from surveys or socio-demographic statistics. Once you have it, your marketing communication strategy will improve considerably.

Doing usability research regularly, connected to different projects, you will gain knowledge on user needs, wishes and behaviour in general. Of course, this user knowledge differs considerably across industries. It also changes quickly over time because users' attitudes change, and more new users arrive every day. Nevertheless, it is possible to perceive trends over time: users are gaining more trust in online services for example, leading them to do more and more banking online. Obtaining this knowledge speeds up the development of online services. It becomes easier to get a service right first time. It helps to prevent disappointing users, which gives them more confidence in online services in general. This can pull your company (developers and owners) into an upward spiral: when you are performing well there is more space for innovation.

Usability testing shows how users actually use the service

<p>Online service owner, Communications manager</p>	<p>Online service developer, Designer</p>	<p>User</p>
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<p>"On this page, the user is confronted with so many choices that we need to bring some of them to the foreground. Animations are a great way of highlighting the most important functionalities."</p>	<p>"Animated buttons make a mess of the design. They pull the whole page off balance and the user won't know where to look."</p>	<p>"When I see something moving on a page I often look away from it. Mostly when something moves it is a commercial banner and I am interested in information, not commercials. But it all depends on the page. Sometimes it does work, so show me the page!"</p>
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If you have attended usability research, you will know that there is a big gap between what users say and what they actually do. A test should always involve some tasks that have to be accomplished without outside help, for example 'Buy book X'. The researcher observes how the user tries to complete the task, noting for instance which route and which navigation tools are used. The subject should be asked to think aloud while doing the task. I have heard people say things that were completely opposite to what they did in such situations. What often happens is that users say they like the service because it has so much information on it, but at the same time you see them struggling or even failing to find the piece of information you asked them to find.

If testing with 20 users, it is possible to make a quantitative judgement of the efficiency of the service¹. Each user is given the same tasks, and their success with each task is measured in percentages, e.g. 0-25-50-75-100%. The average of the success of 20 users gives the efficiency rate of the site. Once you have a number like that, it becomes possible to set goals like 'Raise efficiency 20% for the next version of the service' or 'Be 25% more efficient than the services of competitors'. To be able to set this last goal, it is of course necessary to measure the efficiency of the services of your competitors too. Recording the efficiency of your service in a number may be important, but you should use the test to learn how you can increase its use efficiency too. Otherwise you will not know how to proceed with your development.

<p>Online service owner, Project manager</p>	<p>Online service developer, Designer</p>	<p>User</p>
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¹ Jakob Nielsen on [www.useit.com](http://www.useit.com/alertbox/20010218.html): <http://www.useit.com/alertbox/20010218.html>

<p>"The out-of-the-box technology we use, means that ordering more than one item of a product involves two actions: First you put one item in your shopping basket. Second you adjust the number of items you have and submit. Then you can go on shopping for something else, or go to the checkout."</p>	<p>"In this case, the technology does not allow for easy learning by doing for users. We really have to teach the user how to order more than one item of the same product. But once they know it, they can't go wrong anymore."</p>	<p>"I don't understand how you can order more than one item of the same product. I might be stupid but I do not see it. On the other hand: I do not want to spend too much time on it. If I have to study a lengthy manual... that's an effort I'm not going to take."</p>
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Since online services are new media, they introduce new concepts with new navigation methods, new functionalities, new visual design and new interactions and content every day. That means all users have to learn these new things (new media) all the time. In fact, this need to learn new things make online services attractive to many users, certainly so-called early adopters who are usually the first users of your service. So learning is a natural and accepted part of using new media. Knowing this, it is important to conduct usability testing to establish the learning curve, or learnability of the service you are developing. Is your target group able to learn it? If so, how quickly do they actually learn to use it, and how motivated are they to learn?

During development, the team involved (both owner team and developer team) learn how certain things have to be accomplished in the service, almost without noticing. Typically someone just tells you: "This is how you order two bottles of water instead of one" and they show it to you. If you have seen it once, it is hard to not see it next time. These are little things everybody learns quickly with a little help. But when the user at home has to order two bottles, there is no one to help and he may very well fail and give up. People who have to use the service for their work will be a little more motivated, although there is also a limit to what they want to invest in learning. Developer and owner of the service must discover together how far they can force users to learn.

A related issue is memorability: the ability of users to remember, where to find the customer-service contact information for example. It can be made difficult or easy to remember where you found certain information before. A very consistent information structure may make it easier but when every information category looks the same, it becomes hard to remember them by their looks. You cannot give general solutions to these issues. You have to discover them by giving a demo or prototype to users and giving them tasks where you know they will need to remember certain things to accomplish these tasks. Here too, usability testing helps you to find out how far you can go.

Usability testing shows how users feel about the service

<p>Online service owner, Communications manager</p>	<p>Online service developer, Designer</p>	<p>User</p>
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<p>"A flash movie on the opening screen of the website is a great tool to get the user in the right mood for surfing the site."</p>	<p>"People visit the site to accomplish a task, for instance finding contact information. You don't need to get into the mood for finding contact information!"</p>	<p>"The flash movie is great to watch, but once I've seen it I know it and don't want to see it again. However, I'm not sure I want to spend time looking at it the first time I visit the site. I want to choose myself if and when I watch that flash movie. And I don't want to be confronted with that choice every time I visit www.company.com."</p>
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There is more to using an online service than efficiency and the ability to actually use it. In entertainment, efficiency is even not an issue. With entertainment learnability, memorability and the ability to use it are still issues because people have to cross these thresholds to start actually playing or enjoying. Pleasure in use is important for many online services.

Also the brand experience of the user may be very important. When you offer part of your service online, you extend your company into new media. For example, when users order a ticket of your airline via your website, the associations they have with your brand (let's say reliability and holidays) should be stimulated by the website. Their feelings of trust and excitement should be evoked by the experience of ordering the ticket online, just as these feelings would have been evoked if the ticket had been ordered at the travel agents down town. Companies sometimes desire a slightly more modern image online than they have in the physical world. Or perhaps your company needs a global brand experience connecting to all different local brand experiences your customers have created around the world. Creating an online brand experience is something you cannot not do. And when you do it, you will have to take into account the experiences your customers may already have.

An important benefit of usability testing is that it will help you to establish what users feel about your service. This is something an online survey is not equipped to do well. Surveys are a fine tool for collecting opinions, but to know the value of these opinions, you will have to interview people. Then you can ask follow-up questions to give you insight into the opinions people have. This insight makes all the difference between knowing the opinions of your customers, and understanding their experiences. We all still have to learn what the new media actually can mean in our daily lives at home, on the road and at work. You have therefore an important advantage over your competitors if you really understand the experiences of users, and are not just acquainted with their opinions.

Usability testing creates stronger relations for both owners and developers

As you have seen, the benefits of usability testing for owners and developers of online services during the development period are great, from the very first idea, right up to the moment the service goes live. Usability testing however is only a means. It is a tool helping owners and developers in their joint effort to create a great experience for users, and future value for the company. The goal of usability

testing must be a better, more profitable service. The owner of the service will have more satisfied customers. The developer will have more satisfied clients. Greater satisfaction makes people return, resulting in longer lasting relations. These are the goals companies have. In this there is no difference between developers of online services and the companies that offer these services to consumers and businesses.

The dialogue between customer and service owner: **maximising profitability of the service**

The dialogue between users and owners of the online service

Every online service provokes some kind of dialogue between the user and the owner of the service. The quality of this dialogue heavily depends on the user-friendliness of the service. To be able to offer a user-friendly service, the owner must understand his online users very well. What are their needs? What is their behaviour? What are their wishes, their dreams, and their nightmares too? For example, if you do not know the answers to these questions, it is impossible to introduce a truly satisfactory personalised service. How would you know if or when your users need or wish such a service? What dreams do they have about recommendations? What nightmares do they have about the privacy issues involved? What support and service level do they expect from you once their relation with your company has become more personal? Answering these questions is not easy for owners of online services, once you realise that users are a heterogeneous group with skills, attitudes and behaviour changing over time. Usability tests help the owners of online services to stay in touch with their ever-shifting users and customers. Usability experts put the user at the centre of online business. The result is valuable knowledge of the company's performance, indispensable when you have to run an online business and must maximise its profitability.

A whole range of benefits is connected to the discussions between the owner and the users of online services. They concern:

- Financial: What helps to save costs?
- Sales: What helps to increase revenues?
- Understanding the user experience: How does the user feel about the service?
- Gaining user knowledge: How can the service owner learn from its users?
- Maximising effectiveness: How does the user act and how to connect to that behaviour?
- Customer relations: How can you keep track of your customers?

Usability testing helps to keep maintenance costs low

One way to raise profitability is to keep costs low. Online services need considerable investment to get them online but costs do not end there. You will have to establish a procedure in your company for keeping online information up to date. The copywriters of the company that built the service for you should be able to help you set up such a procedure. How often you update is not only dependent on what your company can accomplish, but also on what users of the service expect. If they think a weekly update is sufficient, there is probably little reason to spend more money doing it more often. Many service operation costs will be saved if you can minimise the stream of questions and complaints

users send to your customer service centre. Of course, the user-friendlier your service is, the fewer questions will be asked.

Usability testing helps to increase your online service revenues

Online service owner, Communications manager	User	Researcher
"To make the e-payment site trustworthy we must show all the technological precautions we took at length."	"To me, trust on the internet is mainly communicated through two things. The interaction must be simple and straightforward. I must have an overview of what I am doing."	" Technology is complex and users do not expect the service to explain to them the full complexity of the technology behind it. When it works flawlessly in a way they can understand, it's fine. And that has usually nothing to do with the actual working of the service technologically."

The other route to maximised profitability is increasing revenues. User-friendliness increases revenues because fewer users drop out during transactions as a result of usability issues. And if a service clearly works for users, if they get a great user experience out of it, they will come back more often, spend more and tell their friends. This will broaden the user group: experienced users of online service encourage their less experienced friends and family to start using a service because it is truly easy and trustworthy for example. More confident and satisfied users stimulate the use of new media in general, and enlarge your customer potential. This may seem trivial, but there is a lot to be gained in a situation where new media are still 'new', in the sense that they are still enlarging their user base and intensity of use. Internet use among computer owners (roughly around half of the population in Europe) is fairly common nowadays, but many people do not own a computer and will eventually go online via interactive tv or wireless devices. The future users of these services are certainly not all computer owners. Revenues through online services can and will be increased considerably in the near future. With the help of usability testing you may get a bigger share of that.

Online service owner, Communications manager	User	Researcher
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<p>"Too many transactions are broken off halfway. We want to know why, and then use the knowledge to raise the percentage of successful transactions (as a part of all transactions started)."</p>	<p>"Our computer crashed after selecting around 15 DVDs and putting them in our 'virtual shopping cart' on this website. When we logged on again nothing of our one hour plus work had been saved. We did not bother to go through the whole process again because now that we knew that this could happen, we did not want to experience it again."</p>	<p>"The different steps of the transaction process should also allow the owner of the service to monitor where exactly things go wrong. The logfiles of the service can point out the step after which most users drop out. Next, you can set up a usability test addressing this specific step in the process, to gain an understanding of what exactly the problem is."</p>
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Your most faithful customers, your brand fans, will be among the first and most eager users of your new online service. They are the people you are going to disappoint, if you postpone usability testing until after the service has gone live. If you seriously disappoint them, you might lose your most avid customers and they may even discourage other people from using your service.

As explained earlier, the user experience connected to your brand and the product or service you sell already begins when the user is confronted with the initial screen of your online service. For example, selecting DVDs in an online store is part of the experience. If that goes badly, the next step of purchase and payment is unlikely to follow. Or if they do purchase, just because they went through the effort of selecting and they don't want to leave empty handed, they will probably not return. Next time they will try your competitor - who is only one click away.

Usability testing explains why users behave like they do

Online service owner, Communications manager	User	Researcher
<p>"On our website we make clear that we want to learn from our customers. We invite them to send in their ideas and complaints and we stress that we really do react to them."</p>	<p>"I have no problem with sending comments and ideas to a website I often visit. It's nice to send some comments, especially when they have done a redesign. But I do expect at least an answer back, telling me what they have done with it because it is important to me that they really listen."</p>	<p>"You can really learn from users but you don't get their advice for free. You need a good email helpdesk that communicates quickly and efficiently (and does not just receive and distribute internally) to be able to learn from your users."</p>

In such a rapidly changing medium, it is important to monitor how it is used. Your aim should be to learn how you could make the service more pleasurable for your customers and more profitable for you. Keeping a constant eye on your service can be done through the server logs that register every

click. But transactions and search box forms should also be logged. You can learn where your customers live, or what they look for on your service. All logs should be analysed of course. (Too) often, this does not occur in detail or on a regular basis. To gather opinions, you can add questionnaires to your service, asking for feedback. This might be good for your image, because users are generally fond of giving suggestions, provided they at least get an answer back for it.

The combination of webstatistics and online surveys can lead to a contradiction: users claiming they rather like the service and server logs showing that users drop out frequently. In the survey, people say they like the service, but statistics reveal that they fail half way through the ordering process. This shows the limitations of surveys when evaluating online services. Services including transactions of some sort allow this kind of analysis. The service sections aiming to give you information or find products (usually prior to the actual ordering) cannot be analysed through such server statistics. In any case the result of the analysis is limited. You still don't know how to make the service better. That is where usability testing comes in. It can tell you why users can't find the product they want, and why they drop out half way through the ordering transaction. With these answers as point of departure, usability researchers can even give suggestions for solutions enabling the user to make more efficient use of the service. That need not always entail rebuilding your service, it can also involve providing better explanations, help texts and error messages. These are all things that can be done by the copywriters who maintain the site. Simple adjustments like this will almost certainly lower the pressure on your customer care centre.

Usability testing helps you understand user experience

Online service owner, Communications manager	User	Researcher
"One by one, our website's different areas and services got their names over the last two years. Now people are used to it and we cannot change it anymore."	"I've been using this site for quite some time now and I have seen it grow. But I still use it like I did in the beginning. All these new areas and services are not clear to me. I tried a few times but got lost in the site. I could not create a good overview of what the site has to offer me. Now I stick to what I know and leave the rest for what it is."	"The names on the buttons in the navigation might be OK when you look at them individually but all together they make no sense because their meanings overlap considerably. It would be best to start from scratch and think of a new set of names for the areas and services on the site."

When your service is finally online, and you have conducted usability tests during development, you can be pretty sure you have created a pleasurable experience for your customers. Although it is important that appropriate follow up is given during the online life of your service. After all, it is not a brochure that you cannot change once printed, and your customers know that. If you want to extend the service with a new special or a new functionality for example, it is a good idea to establish the pleasure of use your current customers experience. This might have changed, simply because the use and users

of online services change over time, perhaps quicker than you think. Also, when you add services or content make sure your service does not become top heavy. For example, you might have to rearrange your content structure because there are too many categories.

Usability testing saves the user's time by maximising effectiveness

Online service owner, CEO	User	Researcher
"We installed the intranet to save costs by decreasing bureaucracy inside our company."	"It's great that I can do the ordering of office supplies through the intranet because it saves me all the paperwork. But I now spend at least the same amount of time I used to spend on paperwork finding the actual products I need in the online catalogue. The system does not save me any time."	"When developing applications like an intranet the main goal is usually cost effectiveness, but the usability of the site is seldom looked at. That is strange because increasing usability means more ease of use. Fewer mistakes and less time wasted. In business to business applications, time equals money."

If there is one thing that users hate it is waiting, wasting their time because they cannot find what they are looking for. Work-related online service use demands efficiency. And their bosses demand it even harder because they do not want to lose more productivity on software with bad usability than they already have to. If you have not solved this issue well enough during development, you will have to solve it now, at larger cost. Your customers will make it clear to you by simply not using your service or by complaining at your customer care centre or the email address or phone number they happen to find somewhere in your online service.

You will have to keep an eye on how the learnability and memorability of the online service evolve while it is online. Your customers will get more and more experienced with your service, and online services in general. This might open up opportunities for new services, more complex services for example, because it becomes easier for people to learn to use them. Features such as a small search box in the menubar become conventions, resulting in better memorability. In this case, it becomes easier for the user to remember where to find the search box. Again, it is important to realise that the professional user will put more effort into learning and remembering because your service has become part of his work.

Usability testing improves the link between the service and user needs.

Product manager and Business developer	User	Researcher

<p>"Our new e-banking website will be a great help to our clients because it saves them the walk to the mailbox on the street to post their envelope to the bank."</p>	<p>"e-Banking worries me a bit, can I trust it? I mean, it's my money we're talking about and the relationship I have with my bank is built on trust. I always thought my signature safeguarded my account, now a list of numbers has to do that instead..."</p>	<p>"When moving from one service to another, the user not only gains something (we hope) but also loses what he had and trusted. The new service should take into account that existing clients have a past full of habits and emotions that are not over and done with when they start using the new service."</p>
<p>"After our move from an offline e-banking tool to fully fledged online e-banking, our clients can be assured of the latest news and functionalities, always. No more new downloads after every update of the service."</p>	<p>"Online e-banking has some disadvantages: I have to be online and pay for it all the time while doing my banking. The new tool will not have all the functions I am used to in the offline tool, for instance keeping an overview of my spending will be more difficult. For myself, I see no advantage in using the new tool. I reckon it's an advantage for the bank and we have to follow."</p>	<p>"Upgrades should not turn out to be downgrades in the eyes of the users. Not all disadvantages can always be overcome, but they should be outnumbered by the new features."</p>

Once your service is launched, the best you can hope for is that it will become part of your customers' lives. You hope they will use it frequently and avidly, that they will never want to be without it. When your service reaches that status it has won a position among the other online and offline services people use, for their banking for example. It is very unlikely that your service will completely replace all the other services, communication and products related to banking. People will still be informed about their stocks through the media of tv, radio and print and possibly also direct mail. The online service has to connect to these other channels effectively and the other channels will have to change as a result of the introduction of the online service.

Now that your online service lives in the real world of its users, it is possible to find out exactly how your customers use it. Previously this was impossible, its use could only be evaluated in usability labs. User experience research is a method that combines observation of the use of your service in the natural environment of the user, with in-depth interviews about its usefulness and pleasure of use. This offers you a deep understanding of the strengths and weaknesses, as well as the opportunities for and threats to your service.

Learning from your users through usability testing

Establishing the most important problems of your online service through usability research are lessons for your company to learn. If you are the messenger bringing the results to your company, make sure

these problems function as inspiration and not discouragement. It will help a lot if you invite the people involved to be present during testing. Normally you can watch the subjects doing the usability tests over a video connection while seeing what they do via a video link of their computer screen. I have seen many spectators of such sessions grow enthusiastic within minutes. They are glued to the screens, for it is a rare opportunity to observe someone not connected to the project casually use the service.

The knowledge you get from such a test is a great help in deciding on discussions regarding the service in your company. The existence of these discussions, on how crowded the homepage of a website can be before the user gets confused for example, is often an important reason for doing a usability test. Once inside the test, watching users performing tasks or reading through the results of the test, the owners of online services realise how much they can learn from their customers and how important it is to listen to them. The online customers tell them a crucial part of the story about the online life of their business. You need to know that story by heart if you want to make your online business a success.

What does a usability test cost?

Compared to the benefit gained, usability tests do not cost a lot. But they don't come for free either. Most important is the effort everyone involved in the project or service has to put into really listening to the users the service is intended for. This takes attention and time, and a little money. The attention of the key persons involved is most valuable because this is really needed to fully exploit the feedback that is given by users. Without a willing ear it is hard to justify any costs of usability testing, no matter how low the costs are.

Low cost usability testing delivers rich results. Testing with five users is usually sufficient because it results in reporting 85% of the problems². The best results come from iterative testing, in close connection to design, development and maintenance of the service. When there is a budget for testing available, try to conduct as many tests as possible instead of putting all your money into one big test. The big advantage of iterative testing is that you can see if adjustments result in better usability. The costs of NOT doing usability research are much higher. When no tests are done it is quite possible that the service will not fit the user and that you only find this out after the launch. That involves having to rebuild (parts of) your service after disappointing your most enthusiastic customers. Try to work out how costly that would be.

² Jakob Nielsen on [www.useit.com](http://www.useit.com/alertbox/20000319.html): <http://www.useit.com/alertbox/20000319.html>