Making Personas Part of Your Team

A workshop for
User Friendly 2008
Shenzhen, China

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Goals for this workshop

One of the hardest challenges in user-centered design is to understand your users, and to put this knowledge into a useful form. Whether they are people you know well, or from a context different from yours, we need techniques to help us collect and use information about them.

Personas are a technique to help us do this. They communicate what we have learned in user research in a format that can be part of every aspect of your work.

They can help you explore a design or evaluate an existing product, and make sure that innovative new ideas will also be useful and usable. Personas are a way of describing the users of a product in a form that can communicate user research easily.

Even when we can't work directly with real users all the time, personas help us make users part of our team.

During our workshop, we will look at how to:

1. Define personas, based on user research and usability data
2. Test a design or finished product by using the personas to "walk through" it
3. Use personas to generate new design ideas
Usability is about people

Before we can think about personas, we need to understand why we create them, and how they fit into usability and user experience.

The classic definition of usability comes from an international standard.

"[Usability refers to] the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use." - ISO 9241:11

Accessibility extends this definition to focus on the breadth of the "specified users."

"Usability of a product, service, environment or facility by people with the widest range of capabilities."
- ISO 16071

One problem with talking about “usability” is that we use the word in many different ways. We will be talking about all of them

- a technique, such as usability testing or personas
- a process, also called user-centered design
- a result or characteristics of a product
- a philosophy of designing to meet user needs

Some definitions focus on usability as a quality of a product.

Usability is a measurable characteristic, that is present to a greater or lesser degree, that describes how effectively a user can interact with a product. It can also be thought of as how easy a product is to learn and how easy it is to use. - Jeff Axup, UserDesign
Others focus on users and their goals and highlight the relationship between thinking about usability and document design, but all of the definitions focus on people and process, not technology.

Usability means that the *people who use the product* can do so *quickly and easily to accomplish their own tasks*. This definition rests on four points:

1. Usability means focusing on users;
2. People use products to be productive;
3. Users are busy people trying to accomplish tasks; and
4. Users decide when a product is easy to use.

- Janice (Ginny) Redish and Joseph Dumas, *A Practical Guide to Usability Testing*

Document design is the field concerned with creating texts (broadly defined) that integrate words and pictures in ways that help people to achieve their specific goals for using texts at home, school, or work – Karen Schriver, *Dynamics in Document Design*

Plain language (also called Plain English) is communication your audience can understand the first time they read or hear it. Language that is plain to one set of readers may not be plain to others. Written material is in plain language if your audience can:

- Find what they need;
- Understand what they find; and
- Use what they find to meet their needs.

No one technique defines plain language. Rather, plain language is defined by results—it is easy to read, understand, and use. - plainlanguage.gov *What is Plain Language*
User-centered design process

User-centered design focuses on process. Within the process, different techniques are used at each stage to ensure that users and user needs are being considered.

Although there are many variations, the most widely accepted definition is an international standard: ISO 13407 – *Human-centred Design Process For Interactive Systems* (being revised and reorganized into ISO 9241 Part 210)

"Human-centered design is characterized by: the active involvement of users and a clear understanding of user and task requirements; an appropriate allocation of function between users and technology; the iteration of design solutions; multi-disciplinary design." - ISO 13407
People come in all shapes and sizes

When we think about users, we have to consider not just what makes them the same, but what makes them different. One of the values of personas is that they gives us a way to represent these differences within a rich picture of the users. They present usability and functional requirements within the full context of the person and their experience.

The people who use our products may be different in several ways:

**They may be from different cultures**
Global products are used by people from many different cultures. National laws, cultural backgrounds, socio-economic backgrounds, religion and language all affect how people interact with and experience our products.

**They are of all ages**
Age affects our past experiences, and how we learned to do things. This changes our experience of new technologies. Research (in the US) reports that older adults interact with some aspects of technology more cautiously. For example, they are less willing to click on a link if they do not have a clear idea of where that link leads.

Some effects of aging look like disabilities, as our vision, physical mobility and hearing diminish.

The Trace Center. [http://trace.wisc.edu/docs/function-aging/](http://trace.wisc.edu/docs/function-aging/)

**Usability for older adults**
Designing Web Sites for Older Adults [http://www.aarp.org/olderwiserwired/](http://www.aarp.org/olderwiserwired/)

**They may read text or visual images differently**
If we look beyond simple illiteracy – that is, having never learned to read – we find a broad range of issues in how people read.
There are reading disabilities like dyslexia or other cognitive disabilities. Or, people may be reading in a second language, and so translating as they read.

And, we have to consider whether they understand the terminology of the content. Are they learning new information, or building on prior knowledge?

They may have different abilities
Physical and cognitive disabilities all change how people interact with a product.

- Visual disabilities change how a person perceives the product, and include, how easily they can read text, how they perceive colors, and other distortions in the visual field.
- Motor disabilities affect a person’s ability to hold a product, or to use controls, especially those that require grasping, turning or fine motor skills.
- Cognitive disabilities include the ability to read, process information, remember details and understand sequences of steps.

Disabilities can be permanent or temporary. For example, someone working in a dark room can have an experience like someone with a permanent visual disability. Or someone wearing heavy gloves may have limited dexterity.

A Brief Introduction to Disabilities
A brief technical introduction to the major types of disabilities, including legal definitions and typical barriers. http://trace.wisc.edu/docs/population/populat.htm

Introductions to major types of disabilities
Visual: http://www.webaim.org/techniques/visual/
Hearing: http://www.webaim.org/techniques/hearing/
Motor: http://www.webaim.org/techniques/motor/
Cognitive: http://www.webaim.org/techniques/cognitive/
Why does all this matter to personas?
They are all aspects of users that we need to include in our thinking about users. If you don’t gather information about users, you are working from assumptions, and that’s risky. Whether you acknowledge them or not, you have assumptions about:

- What users are like
- How they work
- What they know and don’t know
- What their environment is like

Exercise

What are the assumptions in this screen?

Who are the users this site expects?

What is similar about them? What is different about them?

How does the site communicate it’s assumptions?
What are personas?

**Personas are portraits of users**

Personas help us understand users, not as part of a group or a demographic, but as individuals with a history, goals, interests and a relationship to the product.

A persona is…

…a composite portrait, representing important aspect of the real people who will use a product, including demographics, goals and usability requirements.

…a user archetype you can use to help guide decisions about product features, navigation, interactions, and even visual design.

– Kim Goodwin

…archetypal but not actual users; developed in a collaborative work session composed of the development team, user-representatives and stakeholders. The personae are then used to drive design through scenarios as well as evaluate design decisions.

– Christina Wodtke

… a fictional user created to represent a user group. The development team creates this user as an aggregate of the real users they have observed and interviewed. A persona can be more typical than any real individual. A persona is a profile of this super-typical user with a name, photo, likes and dislikes, habits, background and expectations, and any other information that will help the development team identify with the user. Most importantly, personas list key goals for the user.”

– Interactionary.com

John Pruitt and Tamara Adlin, The Personas Lifecycle, Morgan Kaufmann
Steve Mulder, The User Is Always Right, New Riders
**Personas help make user-centered design possible**

Personas put faces on “users” and help make them “real”. They help the team design for those users instead of drifting into the habit of designing for themselves.

**Personas organize research into a usable form**

The more research we get to do, the higher the pile of paper reporting on that research. Only a few people will read all of it; fewer will bring it all together in a coherent analysis.

**Personas bring individual perspectives into focus**

They help us remember that “users” are not all the same, but have individual contexts, goals and motivations.

**Personas establish a common language for discussions about users**

In doing so, they make assumptions and knowledge about users explicit, so that everyone on the team shares the same understanding of who they are designing for.

**Personas build empathy and engagement with users**

The stories you tell about personas are a natural way of understanding people and events.
Personas are specific, not general

They help the team focus on specific users, not on broad demographics. Paradoxically, limiting choices by focusing on a small, specific set of personas can help clarify design decisions.

What do we know about the people in this user group? Does this list of demographic details give you a good picture of who these users are? Does it give us the right information to make good design decisions?

- Aged 30-45
- Well educated
- 45% married with children
- Over half use the web 3-5 times a week
- 65% use search engines

Would a more specific profile give us a better picture of the design and usability requirements, while incorporating the demographics?

- Elizabeth, 35 years old
- Married to Joe, has a 5-year old son, Mike
- Attended State College, and manages her class alumni site
- Uses Google as her home page, and reads CNN online
- Used the web to find the name of a local official

A persona lets us bring all of this information together in a concise format. This persona focused on searching styles

Goals:
Information I can use
Answers to specific questions

Typical Questions:
Tell me something new
I want the latest!
I need <this> information.

Top Usability Needs:
Efficient: Give me a search box and I'll tell you exactly what I want
Effective: Give me accurate, reliable, up-to-date information

Information Seeking Styles:
Find: Specific question or keyword
Query: What's new about....

Risks
Not interested in personalization or community features
Already knows the basics

“I don’t stay on a site long if nothing jumps out at me”
"Where do I type? Here? We have to change that!"

For Elizabeth, the web is a vast library. She likes to keep up with healthcare information, and uses the web to do it. Starting from Google, her favorite search engine, she finds a collection of pages that look good and tries them until she finds one that seems promising.

She doesn’t like a lot of personal stuff on the web - testimonials, kids, interactive tools don’t interest her a lot - but she does have definite ideas about how it should work

Needs:
- Targeted information at the right level of detail
- Search box or ways to reach information directly
Personas bring individual perspectives into focus

They help us remember that “users” are not a monolith, all sharing the same context, goals and motivations. Compare these two people who might use a program to apply for a travel visa:

**Toni**

Toni is a young mother with a hectic life, with her job in a local shop, husband, home, and most of all her son, Marcus, a two-year-old bundle of activity. She usually plans her family vacations, and makes all of the travel arrangements.

**Jerilynn**

Jerilynn works in the passport office in her county. Much of the work is routine, and during the day, half her mind is busy planning the graduation party for her daughter. The part of her job she enjoys the most is helping people, and hearing about the trips they are planning.

Jerilynn and Toni have very different usability requirements, and personas are one way to help the team understand the differences.
Personas establish a common language

Bringing user research from many different sources together can be difficult. But it puts the discussions about how the research viewpoints fit at the beginning of the project.

### AMANDA

**“Madame Quality”**

Amanda has been working as a Customer Service Rep for just over a year. She fell into this job after an interview at the jobs fair at her community college, but has come to enjoy it. Amanda prides herself that she has kept her empathy with the patient, even as she fits into the metrics-driven world of the company.

She likes "really knowing things" and admires the specialists who seem to be able to figure out the difficult problems. If she sticks with this job she wants to be one of them, and answers co-worker questions whenever she can. To help her remember everything, she has created her own "book of information" where she writes down all of the tidbits she picks up.

At work, Amanda would like to be cheerful, helpful and professional. If that means she seems a little bossy to her friends, that’s OK with her.

Outside of work, she has a busy social life with friends, family and her softball league. She dates, but hasn’t met anyone really special. She wants to buy her own place, and likes to browse on the real-estate web sites so she’ll have all the information when she’s ready to buy.

### ABOUT AMANDA

- Customer Service Rep
- Mid-20s
- On the job for 1 year
- Finished community college
- Single, lives in an apartment with her two cats
- Favorite TV shows: CSI and Touched by an Angel
- Favorite author: Nora Roberts
- Plays in a local softball league

### DRIVERS

Amanda wants recognition for the careful work that she does.

### FIVE YEAR AMBITION

If she stays, she wants to be a specialist. If someone else turns to for help.

### FRUSTRATIONS

Even though they say quality is as important as quantity, she thinks they really value speed more.

### HOW AMANDA WORKS

- When a new memo is distributed...
  - Amanda reads it carefully, and creates a post-it note for her monitor until she has the new information memorized.
  - Starting her day...
  - Amanda starts her day by making sure her work area is organized and that she has everything she needs. A sharp pencil, pad ready and a cup of coffee are all in place before her head goes on.
  - Working with customers...
  - She likes to get to know the person as the other end of the call. Her company just added a rule that they have to end every call with “Did I answer all of your questions?” Some of her friends hate this line, but to Amanda, it’s a real question.

Personas can create a new way to look at the users, or can coordinate with other segmentation. They can include:

- Personal characteristics: job, age, education, and other details
- Goals and motivations, both tacit and explicit
- Attitudes, needs for trust and assurance, information needs
- A background: the story they bring with them
- Scenarios: stories that show critical tasks, decision points or typical interactions
Personas can be elaborate or simple
I created these quick personas for a comparative review of technology shopping sites.

<table>
<thead>
<tr>
<th>Experienced Geek</th>
<th>Online Shopper</th>
<th>Tentative Shopper</th>
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</thead>
<tbody>
<tr>
<td>This is the current typical New Egg user. He is young, techie and knowledgeable. Whether he’s building the perfect system, checking out the new toys or doing a favor for a friend, he’s always in the market for new gear. When he hits the site, he knows what he’s looking for</td>
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</tbody>
</table>
| • The best price on a specific item  
• The best product to meet a specific need  
He’s not concerned with subtleties or pretty graphics – just get him the information he needs ... and then get him the products as fast as possible.  
He needs a user interface with:  
• Fast paths to products, with all the information in one place  
• All of the technical details...all of them  
• An easy way to store research, so the final purchase is easier. | This user is an experienced online shopper. Amazon sends her Christmas cards, and she knows how to find the best airline fares. She’s way over being nervous about her credit card or e-commerce security. The one thing that does scare her is buying e-gear. Why can’t the computer and electronics industry make fewer products and give them easier to remember names? She used to think she knew this stuff, but she still remembers when she bought the wrong graphics card — and couldn’t return it.  
She likes being offered advice – as long as it is reasonable, and actually helps.  
She needs a user interface with:  
• Easy-to-read information about each product (on any page with product info)  
• Information about requirements, warranties and other policies in clear, plain language  
• Good pictures to help her recognize products she has seen in an article or store | This user is a more general consumer. He is likely to be looking for consumer electronics or computer accessories, not parts to build his own machine. He’s a little embarrassed about how little he knows about electronics, but this only makes him a little angrier when sites don’t give him the information he needs.  
What he really wants is to ask his friends, but you can’t do that forever – and even then, he has to get online and find what they recommend.  
He needs an interface with:  
• Guidance that doesn’t make him feel foolish  
• A way to ask questions, or find products without part numbers or too precise language  
• Support in finding compatible products (or avoiding incompatibilities) |

They can also be built over time. At The Open University, we evolved this set of personas over several years, and now use them for all our design and usability work.
Creating personas

To plan a project well, you have to ask the right questions:

- What do you already know about the people you are designing for?
- What information are you missing, and how will you get it?

Planning your research

You may already have a lot of the information you need from other user research and usability projects, or you may be starting from the beginning.

1. **Start from current definitions**: Market segments and already defined user groups or target users are a good place to start – as long as you are ready to question them.

2. **Decide on a focus**: Which groups are important to the business? Or are not well served by the current product? Or have unique characteristics?

3. **Decide on a scope**: Are you working within one large segment, or looking across different types of users?

4. **Eliminate peripheral or infrequent users**: They may have important considerations, but do not drive the design.

Exercise

We are planning a web site that will help people use the metro area public transport system. They will need to be able to plan their trips, find the fastest or easiest routes and find out about using this service.

We need to understand who will use our web site, and why. What kind of information do we need to know about our audience before we begin a project?

Let’s brainstorm some answers to these questions:

- Who will use this web site?
- What do we need to know about these users?
- What other information do we need about this site?
- How will we find this information?

Collecting information about users

Personas start from data – both qualitative details and quantitative metrics. Like any user research project, it has to be planned, and needs clear goals:

- Identify the questions you are trying to answer.
• Identify the people who can provide these answers
• Think about the best technique to elicit the information you need

You may be in a situation where it’s difficult to get to “real” users, and you have to consider working with surrogates – they can be better than no one at all!

Techniques for collecting information about users
These techniques focus on listening, observing and understanding the context in which people work and play.
They include both qualitative and quantitative techniques.

• Qualitative techniques are open-ended and exploratory and include directly observed behavior and contextual data
• Quantitative data adds precision and depth to the choices you make for the personas, and include demographics, behavioral data and attitudinal data.

<table>
<thead>
<tr>
<th>Qualitative techniques</th>
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<tbody>
<tr>
<td><strong>To…</strong></td>
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<tr>
<td>Understand users in</td>
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<td>their environment</td>
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<td>Explore attitudes and</td>
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<td>expectations</td>
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Best
- People who really use the product
- People like those who use the product
- People who used to use the product or were recently in the users’ role
- People who work with people who really use the product
- People with specialized knowledge that is not typical of users
- Other internal staff used to represent real users
- Experts, analysts and other designers
- No one at all

Worst
their reactions to existing products or other conditions.

| Know their goals and processes | Scenarios of use and other task analysis techniques to explore and document their workflow. |
| Identify quantitative demographics | Surveys and other market research on user demographics, product usage and other consumer habits. |
| Identify factors in the environment | Context of use audit to document environmental, social and access needs. |

**Qualitative data**

<table>
<thead>
<tr>
<th>To…</th>
<th>Use…</th>
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</thead>
<tbody>
<tr>
<td>Understand demographics of the market</td>
<td>Your own or third party market research reports</td>
</tr>
<tr>
<td>Get large data sets</td>
<td>Surveys or web site intercepts provide statistically significant answers to specific questions</td>
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<tr>
<td>Learn about how the site is used</td>
<td>Web site log analysis shows you what parts of a web site are most used, and how visitors navigate around the site</td>
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<tr>
<td>Learn what words people use</td>
<td>Internal and external search log analysis reveals the words users associate with your product, site or service</td>
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<tr>
<td>Learn about problems</td>
<td>Customer service/Technical support logs can document both problems and unusual uses of a product</td>
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**Collecting stories**

Some user research is focused on specific metrics or data, such as work processes, task success or time on task. All this information is valuable for personas, but we also want do be sure to collect information about their context: how and why they make decisions or what influences their experience.

A good way to do this is to focus on the stories they tell. Short anecdotes can reveal not only “what happened” but how they feel about it, and how it might change their behavior in the future.

Here’s an example of a story about a train trip.
Exercise
Divide into pairs and interview each other about how someone you know uses public transportation. Tell a story about one specific trip.

As you listen to the story, take notes on:

- Who is the person in the story (age, gender, etc)
- When and why do they use public transportation
  - Is this a special event, or something that happens all the time
  - How was the trip? Easy or difficult?
- How do they learn about options, schedules and costs
- What do they like or dislike about public transportation?
Analyzing the information you’ve collected

You are looking for patterns in the data – things that make one group of people different from the others. As you examine the data:

Look for personal similarities

- Interaction styles or the type of things they do with the product
- People with similar backgrounds or personal characteristics
- Patterns in attitudes or goals

Look for similarities in their tasks or activities

- By function
- By usage patterns
- By level of experience

Look for shared stories

- What do they tell stories about
- What words do they use

If there are existing user segments, or ways of thinking about customers, these are a good starting point. They may work for marketing (for example, defining different groups of customers). But, this might not be the right way to organize your personas.

Techniques for organizing your data look for similarities and differences.

Affinity analysis

A good technique for analyzing data for personas is affinity analysis, or cluster analysis.

You may know this as a technique for brainstorming, or for IA content analysis, but it also works as a way to organize different data points you collect for personas:

- You can start from a “bottom up” analysis, looking for groups of related characteristics in the data you have collected about users. This is a good approach when you don’t know much about the context, and need to be able to work through the data without preconceptions.
- You can do a “top down” analysis, in which you look at how each person you have worked with fits into a collection of characteristics. This is a good approach when you have a good starting point, or where there are strong business goals.
Matrix analysis

Another approach is to take several different aspects of the analysis and identify where the users fit on that spectrum.

For example, if you were creating personas for a local transport information site, you might have these dimensions:

Once you have done this, you can than try putting two of these dimensions together into combinations of 4-way matrixes and placing markers for each persona in the sections of the matrix:

When you start to see coherent groupings, you can identify possible personas:
This is an iterative technique: you can try different characteristics or groupings of the data, until you find one that gives you groupings where you can:

- Distinguish between them easily
- Identify them in relationship to the business goals
- Understand the relationships between them
- Relate them to design issues.

You may also find that some of the dimensions go together well, or have a strong relationship to a demographic characteristic.
Identifying the personas

You might find possible personas emerging in different ways:

1. A strong primary persona (and sometimes a secondary persona), with other less-frequent or critical users, based on tasks.
   Example: An HR application, used mostly by the benefits administrators and employees, but also used by managers or IT managers.

2. Personas differentiated by a small number of behavioral or attitudinal characteristics.
   Example: Air travelers, divided by whether they are business or leisure travelers and how they book their travel.

3. A collection of personas, who share one characteristic, but are differentiated by other demographics or attitudes.
   Example: Students and potential students at a university, differentiated by their reasons for entering higher education.

If you choose a primary persona look for the persona with the most (or most complex needs). **The primary person may not be the most important market segment!**

Meeting the primary persona's needs should not make it impossible for other personas (or valuable market segments) to be successful.
Examples of maps of personas
These examples all show a group of personas and how they are related.

Health information personas
These personas were for a health website that provided information for specific diseases.

These personas are based on level of knowledge and type of information they need. The map shows how people move between these personas over time, so the map shows this motion.

We also created highlights for each person in this group:
Office worker personas
These four personas were for a small business payroll software program. The software lets the office worker write paychecks for each worker in the company, and keep track of their vacation time and other benefits and taxes.

They are based on the size of the company and the number of office roles the personas filled.

- Workers in large companies wanted more batch operations, while those in smaller companies tended to work on each employee one at a time.
- Some workers had more specialized roles. This gave them more depth of knowledge, but less breadth.

We also discovered a 5th persona, The Replacement – the person who filled in on payroll when the normal person was on vacation.
### Making Personas Part of Your Team – User Friendly 2008

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A collection of university students
Six personas for students (or those who want to become students) are a collection, focused on different histories and reasons for wanting to study.

<table>
<thead>
<tr>
<th>Key Enquirers</th>
<th>School Leaver</th>
<th>Ready for Change</th>
<th>Finding a Way Up</th>
<th>Professional Updater</th>
<th>Building a Power Career</th>
<th>Leisure Learner</th>
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<tr>
<td><strong>Jason</strong></td>
<td><strong>School Leaver</strong></td>
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<tr>
<td>&quot;Mum won't let me get into debt&quot;</td>
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<td>Market Segment: Entry Level</td>
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<td>Wedge: I'll probably go to university</td>
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<tr>
<td>Age: 18, lives in Hull</td>
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<td>Job: Worried about over the summer</td>
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<td>Education: Upper sixth, about to take A-Levels</td>
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<td>Web games and IM - surfs fast, but without direction</td>
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<td><strong>Rachel</strong></td>
<td><strong>Ready for Change</strong></td>
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<td>&quot;Clubbing is so 2000. It's time to start my life&quot;</td>
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<td>Market Segment: Traditional Part Time</td>
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<td>Wedge: I'll get a degree some day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age: 25, lives in North London with partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job: Supervisor (retail)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education: GCSE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enthusiastic dreamer - uses offline contacts - texting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abila</strong></td>
<td><strong>Finding a Way Up</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I deserve a better life&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Segment: Limited Choice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedge: Education is a route to a better life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age: 32, lives in Birmingham; single mum, children 7 and 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job: Care assistant at home for the elderly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tentative, but eager - struggles with the language barrier - needs to learn about higher education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>George</strong></td>
<td><strong>Professional Updater</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I need to keep up to move up&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Segment: Career Mover/Corporate Tied</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedge: Education is a route to a better life</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age: 44, lives in Aylesbury, wife works. One child in college, other, 16, still at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job: Production manager at agricultural firm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliberate and careful - follows through - uses web to order print materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Martin</strong></td>
<td><strong>Building a Power Career</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;This is the next step in my plan&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Segment: Career Mover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedge: I'll get (another) degree one day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age: 29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job: Business consultant for Shell</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education: BSc (Hons) Chemistry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Careful, thorough researcher - cares about reputation of the university - highly motivated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Margaret</strong></td>
<td><strong>Leisure Learner</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I've always wanted to study&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Segment: Leisure Learner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wedge: Learning for pleasure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age: 72, lives in Hastings with husband</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level: Secretarial college</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job: Working as part-time administrator for local charity in retirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knows what she wants - uses computer at work - gives up easily if things go wrong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Filling in the details
The next step in creating personas is to decide on their details – “bring them to life.”

Choose details that

- Make sense in the context of the project: They should reflect part of the environment or context of use, suggest how the persona might make an important decision, or create a personal history.
- Help differentiate the persona by illustrating the differences between this person and others.
- Connect to usability issues: their usability requirements or learning styles.
- Let the team get to know the personas: reveal personal choices, lifestyle or activities and have a little bit of fun.

Personas typically include:

- A name or identifier and a picture
- Personal characteristics: age, gender, family or job
- A short narrative that describes the persona
- Information that helps identify their usability needs, such as
  - Their goals (in relationship to the project, or to their life)
  - How they look for information
  - Attitudes or behavioral patterns
  - Features important to them
  - Pet peeves
- Other information relevant to the project
  - Computer or web use
  - Reading habits
  - Favorite web sites, software or other products
- A few key stories, or short scenarios that show the person “in action”

Pictures make the persona tangible. You can have more than just a picture of their fact. A collage of images can show the person in context with their family or colleagues, house or office, or suggest relevant details.

A template for a persona puts this information into a consistent format, like this example:
**About**
- Key Facts
- Key Facts
- Key Facts

**Personal Goals**
Brief description of their goals or tasks in this context

**Usability Needs**
What are the most important dimensions of usability for this persona

**Attitudes or Other**
What are important attitudes or other information to summarize about each persona

<table>
<thead>
<tr>
<th>Name</th>
<th>“Description”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A short description of this persona goes in the center of the page. This is the story of the persona, as it relates to this product. This story establishes who the persona is, and can be the jumping off point for all of the stories and scenarios you create. Brief key scenario to show the persona in action. Choose a story that helps establish either typical activities, or something that sets this persona apart from others.</td>
</tr>
</tbody>
</table>

A short description of this persona goes in the center of the page. This is the story of the persona, as it relates to this product. 

This story establishes who the persona is, and can be the jumping off point for all of the stories and scenarios you create.

Brief key scenario to show the persona in action. Choose a story that helps establish either typical activities, or something that sets this persona apart from others.
Rachel: ready for change

“Clubbing is so 2000. It’s time to start my life”

Enthusiastic dreamer - scattered - uses offline contacts – texting, not email

Personal Details
- Age 25
- Lives in North London with partner
- Supervisor (retail)
- Highest education level: GCSE

Personal Goals
Wants promotion but has hit a ceiling with current qualifications
Fulfill her potential

Using the Web
No access at work
Looks up clubs, travel
Regular on eBay
iPod user

Usability Needs
Engaging - she needs to be reassured and entranced by the prospect of study.
Easy-to-learn - she will give up if it’s too hard

Market Segments
I’ll get a degree someday
Traditional Part Time
Highly motivated by self progression
Lower socio-economic
Considering local FE/HE college

When We Meet Rachel
Rachel left school at 16 with a GCSE then took a series of jobs in retail before moving to another area when she met and moved in with her current partner. She still likes going out to clubs and parties, and is always one of the first to try a new place to eat in her town.

She’s an energetic person, always throwing herself into new ideas, and schemes for new jobs, fun vacations and so on. For a few months, she wanted to go into adventure tourism, and even signed up for an informational course. But too often, she finds her plans slipping away. She would also like to have children and doesn’t want to leave it too late.

She works for a major retail chain as a supervisor and would like to climb the career ladder further but her qualifications are holding her back from making the leap to be a store manager. In her more practical moods, she knows that she could do it, if she just had a chance to prove herself.

First Contact with the OU: OU on TV
Insomnia led Rachel to the OU, watching programs on the telly. She starts to enjoy the programmes and thinks about doing something to improve her career. It takes her a long time to act on this idea, but she visits an Open Day.

She spends a long time thinking about it, sometimes browsing the web site, but also reading the brochures she has taken from the Open Day.

On her third trip to an Open Day, she finally registers for an Openings course that’s about to begin.

What Does Rachel Want to Know?
What level should I start with?
Can I study as a one-off? Can I count courses towards a degree later?
How can I choose between business studies, which I think is better for my career, or something like adventure tourism that really interests me?
A checklist of information for personas

<table>
<thead>
<tr>
<th>Personal characteristics</th>
<th>Goals and tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographics</strong></td>
<td><strong>What</strong></td>
</tr>
<tr>
<td>Age, sex</td>
<td>Most frequent tasks; most difficult; easiest</td>
</tr>
<tr>
<td>Education level</td>
<td>Order and relationships</td>
</tr>
<tr>
<td>Income</td>
<td>Degree of freedom to choose tasks, and to work within a task</td>
</tr>
<tr>
<td>Family</td>
<td><strong>Where</strong></td>
</tr>
<tr>
<td></td>
<td>Where, and in how many different places, do they use the product</td>
</tr>
<tr>
<td><strong>Personal goals</strong></td>
<td><strong>With whom</strong></td>
</tr>
<tr>
<td>Career or life goals</td>
<td>People they work with</td>
</tr>
<tr>
<td>Hobbies or leisure activities</td>
<td>Information needed from, or given to, others</td>
</tr>
<tr>
<td><strong>Job information or domain knowledge</strong></td>
<td><strong>When and why</strong></td>
</tr>
<tr>
<td>Current position, previous positions or roles</td>
<td>How often and under what circumstances</td>
</tr>
<tr>
<td>Number of years in position, with company, in industry</td>
<td>Frequency and duration of use</td>
</tr>
<tr>
<td>Level of knowledge</td>
<td>What triggers the use</td>
</tr>
<tr>
<td></td>
<td>How do they describe “success” at their tasks?</td>
</tr>
<tr>
<td><strong>Web or technology experience</strong></td>
<td><strong>Motivations</strong></td>
</tr>
<tr>
<td>Level of comfort</td>
<td>Influencers or advisors</td>
</tr>
<tr>
<td>Similar products/sites used</td>
<td>Collaborators or interferers</td>
</tr>
<tr>
<td>When, where and how</td>
<td>People who influence actions or give advice</td>
</tr>
<tr>
<td><strong>Attitudes and needs</strong></td>
<td><strong>Decision factors</strong></td>
</tr>
<tr>
<td><strong>Information needs</strong></td>
<td>Details of the context or reasons for actions</td>
</tr>
<tr>
<td>Favorite ways to learn or teach</td>
<td><strong>Barriers</strong></td>
</tr>
<tr>
<td>Preferences for ways to get info or help</td>
<td>What makes them change their plans?</td>
</tr>
<tr>
<td><strong>Attitudes</strong></td>
<td>Dislikes or pet peeves</td>
</tr>
<tr>
<td>Patience and tolerance for problems</td>
<td>Level of tolerance for efficiency, effectiveness, ease of learning</td>
</tr>
<tr>
<td>Proficiency or comfort with similar tools or experiences</td>
<td><strong>Expectations</strong></td>
</tr>
<tr>
<td>Trust in company or systems</td>
<td>How do they describe “success”?</td>
</tr>
</tbody>
</table>
Using personas for evaluation

Once you have created your personas, you can use them throughout a project or for the life of a product. We'll start by looking at how personas are useful for evaluation.

- Use personas for design walkthroughs and usability reviews.
- Use personas for recruiting (and consider what it means if you don't see people who match your personas).
- Use scenarios created for personas as usability test scenarios.

Five steps to a personas-led review

Step 1. Don't look at it.
You have only one chance to look at a site for the first time. Don't look at it and form your own opinion before you begin. Instead, save that first look for the persona. This is very important for:

Step 2. Choose a persona, and decide on a task
Next, decide which persona you will use. If you are working in a team, a good way to run the review is to have each person take a persona. This helps you concentrate on the viewpoint of the persona throughout the experience.

Think of one persons who might use this site. Be sure you have clear answers to these questions:

Who are they?

Why have they come to this site?

What do they expect to happen?

You also need to decide what tasks or goals the personas will have. Depending on the site, you may have just one big task, or you may want to review a set of smaller tasks.
There are many sources for these tasks, depending on what data you have available for the site or product:

- Site logs can suggest the most frequently visited features, pages or sections of the site. You can use them to define tasks.
- Search logs also suggest tasks, especially for information or e-commerce sites.
- Your user research should include information about tasks and goals.
- Previous research, usability tests or surveys can give you a list of frequent reasons people visit the site or use the product, or their first questions.

<table>
<thead>
<tr>
<th>What are the different reasons people might come to this site?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Try to phrase the questions as goals, rather than as a description of features of the site:</td>
</tr>
<tr>
<td>1.</td>
</tr>
<tr>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
</tr>
</tbody>
</table>

**Step 3. Now look at it**

Now that you have a persona and a task in mind, take a look at the site, and decide what their first step on the site would be.

Remember why the person is visiting this site, and try to look at it through their eyes.

<table>
<thead>
<tr>
<th>What do they see first?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is their first click or first action?</td>
</tr>
</tbody>
</table>

You can document these actions in a table making it easy to compare how each persona approaches each task, and whether they succeed.

**Step 4. What did we learn?**

Once you have done your review, it’s time to analyse the results. This is really no different than analyzing any other review, but it’s more important to keep track of each of the personas.

This example is from a walk-through with several personas, looking at how they use the site. We made a separate table for each of the tasks, so we could be sure that each of the personas had a good experience.
In a review of 50 websites, Ginny Redish and Dana Chisnell created a score-sheet for two personas on each type of site, to create an overall score. They chose two personas who were most typical of their older adults.

**Scores on heuristics for Edith and Matthew for news sites:**

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Edith</th>
<th>Matthew</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>observations</td>
<td>total</td>
</tr>
<tr>
<td>No problem</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Minor hindrance</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>Serious problem</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Task failure</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Total for 2 &amp; 3</td>
<td>34</td>
<td>63.0</td>
</tr>
</tbody>
</table>

**Table 2. Sample data table**

Designing Web Sites for Older Adults: Expert Review of 50 Web Sites – Ginny Redish and Dana Chisnell for Amy Lee, AARP [www.aarp.org/olderwisewire](http://www.aarp.org/olderwisewire)

Another way to look at a site is to print out the pages, and keep track of the behavior of all of the personas. For example, you might note where each persona clicked. This is useful if you want to keep track of:

- Whether each persona has a strong “first click” or “first thing to read” on the page
- Whether each feature on the page is attractive to at least one persona.

**Step 5. Reporting**
The purpose of the review is to find usability problems, so we can make recommendations for how to improve the site. This means we have to summarize what you’ve learned and share it with others on your team.

The report can emphasize differences or similarities between the personas. Or you may find that the site supports some tasks well across all the personas, but others not so well.

**Summary**

What we’ve just done is a “persona-led heuristic inspection”

- The user story – the persona and goal – guides the review.
- Your knowledge of the content, usability and good design help you understand the problems the person might encounter.
- Guidelines or a checklist can help you keep important points in mind.

The risks of reviews is that you can become overconfident:

- You may know less about these users than you think.
- Methods that rely only on guidelines are known to be rather poor at predicting actual problems.
- You may resist doing usability testing, because the review seems good enough.

Caroline Jarrett and Whitney Quesenbery, “How to Look at a Form”, UPA 2007
Exercise
Using the personas, let’s review a public transportation web site.

1. Assign each person in your group to one of the personas.
2. For each persona, have a clear scenario in mind
   - Why have they come to this site?
   - What do they expect to happen?
3. In addition to the personas’ own goals, create three other tasks for them all to try

4. Try out the tasks. Record the results. You can use a table like this:

<table>
<thead>
<tr>
<th>Task:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persona</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Task:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persona</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

5. Discuss the results
Other uses of personas for evaluation

Personas can support your evaluations in other ways:

- Use the scenarios you create for the personas as task scenarios in usability testing.
- Use the persona demographic as the basis for recruiting for user research or usability testing.
- After each usability test, decide what persona best matches each participant in the test. This lets you ensure that you are including a full range of types of users in your testing. It’s especially important when your personas cross demographics that are easier to recruit for.
- Use the 5Es to explore different usability needs for each of the personas (and to think about which is the most important to them).

<table>
<thead>
<tr>
<th><strong>Effective</strong></th>
<th>▪ How does each persona define success?</th>
</tr>
</thead>
</table>
| **Efficient** | ▪ How long does each persona feel a task “ought to” take, or what makes it feel “too long”  
▪ Are there characteristics of task behavior that can be mapped to different personas. |
| **Engaging**  | ▪ What kind of relationship does each persona want with the site?  
▪ What makes a site engaging to the persona? |
| **Error Tolerant** | ▪ How much knowledge does each persona bring to the task?  
▪ How well can each persona handle errors (both technical errors and those based on content)? |
| **Easy to Learn** | ▪ Are the personas willing to use tutorials or other support?  
▪ Do they expect help or other support?  
▪ What skills or knowledge do they bring to the product? |
Using personas for design and innovation

Personas can also contribute to innovations and design decisions. They “keep users at the table” so design discussions are grounded -- connected to real people. Bring your personas to design sessions and let them “comment” on design ideas.

You may even have comments from user research sessions. This is similar to how you use personas for evaluation, but working on new ideas, instead of an existing site.

- Use the personas to work through design problems
- Role play to explore differences in how the personas react to different designs
- Consider not just what they would do, but how they would prefer to do it

Stories from persona scenarios can spark design ideas

The scenarios for the persona (and those collected from users who contributed to the persona) suggest features and design requirements:

- Which features are most important to each persona?
- How well do the features used by the primary persona match the features of the product?
- Do the personas use the same features differently?
- What usability requirements are hidden in the scenarios?
- What contextual information is important
- Is there a need for better connections between existing features?
- Are there new interactions that the product could support?
Are there features that should be changed or eliminated?

Example
This is a scenario from the payroll project:

Mary was filling in on payroll while Kathy, the office manager, was away. On Thursday, Kathy left her a message to remind her about some special bonus checks for that week.

Mary had not used the payroll program for a while, and only remembered that special checks could be difficult. Reading the post-it notes on the wall next to the computer, she scanned for instructions, and was relieved to find one for bonuses.

Following these brief notes, she found the right screen and puzzled her way through the on-screen instructions. Moments later, the missing checks were rolling out of the printer. As she breathed a sigh of relief, she made a copy of the checks to show Kathy when she returned - just in case.

In this scenario:

- The task is difficult
- Unfamiliar users may need to complete it because the task cannot be deferred
- Primary users make themselves cheat-sheets to help remember functions

Design ideas:

- Add a feature to allow primary users to add “if you need to…” instructions for replacements
- Design the task so users can walk through it as a series of steps.
- Allow users to create a checklist that they can use to add their own specific requirements, steps or procedures.

Personas can help prioritize new ideas

In addition to coming up with new ideas, personas can also help decide which ideas are worth pursuing, balancing different stakeholder needs.
Exercise
What are some of the ideas that our scenarios and personas suggest for our project.
Summary

Personas communicate what we have learned in user research in a compact and useful format.

They have specific, detailed views of users. They are based on both quantitative and qualitative data.

The context and stories created for a persona provide:

- A basis for understanding usability (and feature) requirements
- Sparking new design ideas
- Evaluating designs as they are developed.
Annex: Sample personas for transit sites

**SANDRA (& LLOYD)**

_“The Tourist”_

Sandra does not use public transportation in her daily life, but when she and her family go on vacation, or when she travels to another city, she does not like to have to drive.

She uses the Web to research her travels. She is usually confident in making hotel and air reservations online, but she cannot always find information about local transport options.

Sometimes she has found a good value on a tourism site – for example, learning that there are local trains for a small fraction of a taxi from the airport.

Sandra is more concerned about her personal safety, now that she’s getting older, and she also worries about missing her stop or misunderstanding the directions and getting lost.

**ABOUT SANDRA**

- 62 years old
- Travels both alone and with her husband, Lloyd
- Lives in a small city
- Uses the computer at work, where she has access to the web

**PERSONAL GOALS**

Plan her vacation confidently. Find the best values for her money.

**USABILITY NEEDS**

Effective - the most important thing is that the routes she selects are accurate.

Easy to Learn - she is not willing to invest much effort in struggling to understand a transport site.

Engaging - sites that guide her though the process and include information for tourists give her confidence.

**ATTITUDES OR OTHER**

Doesn’t like new situations and worries about safety.

**SCENARIOS**

- Sandra wants to visit an attraction slightly outside of the city that she has read about...
- Sandra and her family will be arriving on a late flight. They have read that there is a special train from the airport. She wants to find the schedule for this train late at night. She would also like to know whether there a conductor on the train...
- Sandra would like to find out if there is a sports match on the weekend when she will be visiting a city, and how to get to the stadium.
Chris lives in the city, so she uses public transportation as her main way to get around.

She works as a service rep and spends most of her time at customer offices, checking in with them and handling any problems. Her days can be complicated, as she tries to be on time as she goes from place to place.

She took the job because she likes variety, but this also means that she doesn’t use the same bus or train every day, like some of her friends. Instead, she’s become a bit of an expert in getting around her city, for example, knowing what great little restaurant is near a train stop. She’s become a bit of an expert and likes it when her friends ask her for advice.

Her husband also works in the city, and they often meet after work for dinner or to go out with friends.

Chris has a busy day, with four different clients to visit. She wants to find the most efficient route, so she doesn’t end up wasting a lot of time traveling from place to place.

George suggests that he meet Chris for dinner after her last stop of the day. She’d like to find somewhere to meet that will be near a nice restaurant, and make it easy for them to get home afterwards.

A friend texts Chris asking what the fastest way to get somewhere is.
Mark lives in a suburb and commutes to his job in the city center. He likes his job, but commuting is just something he has to endure to be able to live near his friends. They are an important part of his life – and he spends his evenings and weekends just hanging out with them.

His biggest complaint about commuting is that the trains seem to be late all the time, and that these days they are also very crowded. He likes to be able to read his sports magazines, or sleep on the train, so he’s not happy about “people who sit on the train and “yammer into their phones”

A couple of times a month, Mark and some of his friends from work go out to a bar, or to watch a ball game at someone’s apartment. He always seems to end up sitting at the station waiting for the next train.

**About Mark**
- 28 years old, single
- Shares a house with two other men in the suburbs
- Uses a computer, but is not focused on it; one house-mate is an avid games player

**Personal Goals**
Brief description of their goals or tasks in this context

**Usability Needs**
Effective - the most important thing to Mark is that he get the information accurately
Efficient - a close second is not having to waste a lot of time figuring things out

**Attitudes or Other**
Hates being inconvenienced.

**Scenarios**

- Mark has been invited to someone’s house. He wants to find out if he can get a direct route home without having to go back into the city center.
- At the beginning of every month there is always a line at the station to buy their transit passes. Is there a better way to do this, so he doesn’t have to wait in line?
The 5Es of usability

Another tool for looking at users is to think about different aspects of usability and how it affects them.

**Effective**
The completeness and accuracy with which users achieve their goals.

**Efficient**
The speed (with accuracy) with which this work can be done.

**Engaging**
How pleasant, satisfying or interesting an interface is to use.

**Error Tolerant**
How well the product prevents errors, and helps the user recover from any that do occur.

**Easy to Learn**
How well the product supports both initial orientation and deeper learning.

Users may have a different balance of usability requirements, even for the same product, depending on their role and tasks.

For more on the 5Es see my web site:
http://www.wqusability.com
Universal design

“Universal design is the process of creating products which are usable by people with the widest possible range of abilities, operating within the widest possible range of situations, as is commercially practical.”

- Gregg Vanderheiden, The Trace Center, University of Wisconsin

1. Equitable Use—The design is useful and marketable to people with diverse abilities.

2. Flexibility in Use—The design accommodates a wide range of individual preferences and abilities.

3. Simple and Intuitive Use—Use of the design is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level.

4. Perceptible Information—The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities.

5. Tolerance for Error—The design minimizes hazards and the adverse consequences of accidental or unintended actions.

6. Low Physical Effort—The design can be used efficiently and comfortably and with a minimum of fatigue.

7. Size and Space for Approach and Use—Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Principles of Universal Design
www.design.ncsu.edu:8120/cud/univ_design/principles/udprinciples.htm

Gregg Vanderheiden, Trace Center. “General Concepts, Universal Design Principles and Guidelines” http://trace.wisc.edu/world/gen_ud.html

Guidelines for plain language

"Plain English is clear, straightforward expression, using only as many words as are necessary. It is language that avoids obscurity, inflated vocabulary and convoluted sentence construction. It is not baby talk, nor is it a simplified version of the English language. Writers of plain English let their audience concentrate on the message instead of being distracted by complicated language. They make sure that their audience understands the message easily."

- Professor Robert Eagleson, Australia

Ginny Redish wrote an article on how to recognize a plain language expert that makes it clear that they are, at core, user centered. In her definition, plain language experts:

- Focus on the users of the document
- Understand the context in which a document is used
- Write clearly and are concerned with the information design
- Test their work

Checklists for clear writing usually include these guidelines:

1. Make information easy to find with clear headings.
2. Break up the information into manageable pieces.
3. Put the pieces of the document in a logical order for your readers.
5. Set the context first. Put the pieces of a sentence in logical order for your readers.
6. Talk to your readers. Use "you" and the imperative.
7. Write in the active voice (most of the time).
8. Put the action in the verb, not in the nouns.
9. Use your readers' words.
10. Use bulleted lists where appropriate – for a list of items and for parallel "if, then" sentences

What is a Plain Language Expert - http://www.usabilityprofessionals.org/civiclife/access/plain_language_expert.html
Center for Plain Language - http://www.centerforplainlanguage.org/
Plain Language.gov - http://www.plainlanguage.gov/
W3C Web Content Authoring Guidelines
The W3C’s Web Accessibility Initiative offers another set of principles. Although they are aimed at accessibility, they also offer a good way of thinking about differences between users and how we incorporate those needs into our designs.

Principle 1: Perceivable - Information and user interface components must be presentable to users in ways they can perceive

1.1 Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language

1.2 Provide alternatives for synchronized time-based media

1.3 Create adaptable content that can be presented in different ways (for example simpler layout ) without losing information or structure

1.4 Make it easier for users to see and hear content including separating foreground from background

Principle 2: Operable - User interface components and navigation must be operable

2.1 Make all functionality available from a keyboard

2.2 Provide users enough time to read and use content

2.3 Do not design content in a way that is known to cause seizures

2.4 Provide ways to help users navigate, find content and determine where they are

Principle 3: Understandable - Information and the operation of user interface must be understandable

3.1 Make text content readable and understandable

3.2 Make Web pages appear and operate in predictable ways

3.3 Help users avoid and correct mistakes

Principle 4: Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies

4.1 Maximize compatibility with current and future user agents (browsers), including assistive technologies

Start here

2. Letting Go of the Words: Writing Web Content That Works by Janice (Ginny) Redish, Morgan Kaufmann, 2007

Choose one of these basic how-to books on usability testing


More topics and perspectives on usability testing

   *One of the best descriptions of how to work with a participant during a session to explore a design*

   *A deep look at the skills of moderating.*

   *Includes tips on working with participants with disabilities*

   *When you need quantitative data or statistics, this new book covers the whole territory of measurement and reporting on numbers.*

User and task analysis

   *Still one of the best introductions to getting out in the field to work with users*

   *The “polar bear book” which introduced and popularized IA*
10. Mental Models by Indi Young. Rosenfeld Media, 2008
   A step-by-step overview of how to analyse user data and build a model you can use for design.

Personas

11. The Personas Lifecycle by John Pruitt and Tamara Adlin. Morgan Kaufmann, 2005
    A big book (including my chapter on storytelling), with a complete process for developing and using personas

    A shorter introduction to personas

Design topics

13. Defensive Driving for the Web: How to improve error messages, help, forms and other crisis points by 37 Signals, New Riders, 2004
    A whole book on error messages

    Detailed design guidelines for creating forms
Whitney Quesenbery is a user researcher, user experience practitioner, and usability expert with a passion for clear communication.

As the principal consultant for Whitney Interactive Design (WQusability.com), she works with companies around the world to develop usable web sites and applications. Her recent projects include work for The Open University, IEEE, National Cancer Institute and Sage Software.

As an advocate for usability, Whitney has been president of UPA, is a Fellow of the STC, and worked on projects to establish guidelines for usability requirements and test reports. She is on two US Federal Advisory Committees, working to improve the usability and accessibility of voting systems and on an updates of “Section 508”, the US accessibility laws.

Whitney is a frequent contributor to industry publications, including UPA’s UX magazine, Journal of Usability Studies, uiGarden, UXmatters, <interactions> and STC’s Intercom


Chapter 9: “Storytelling and Narrative”


Chapter 4: “Dimensions of Usability

Sherman, P. Ed. Usability Success Stories Ashgate 2006

Forward to the book