Not long ago, I found myself at a newspaper with a Web team who wanted my usability services for a new entertainment site they were building. Our first meeting involved a spirited discussion about the site the team had long envisioned. As the talk of this feature, which functionality, and that content flew around the room, my stomach began to churn. Despite all the creative threads being spun, pulling together this site had the potential to be as awkward as needlepointing a three-piece suit. Something needed to be done very soon. Shortly thereafter, I introduced the Web team to Greg.

Greg is a local guy, 37 years old, and a busy senior loan manager for a bank in Santa Rosa, a city north of San Francisco in the heart of the wine country. He was recently divorced and has joint custody of his two young children. On weekends, Greg enjoys getting his kids out and away from the television, taking advantage of the nearby hiking trails, fishing, and canoeing available to them. When he isn't exploring the region with his kids, he enjoys taking a girlfriend to one of the fine restaurants that are as plentiful as the vineyard patches that dot the gently rolling hills behind his home.

Greg has a certain penchant for collecting information about what is going on in the community. A self-described "constant-clipper," Greg rips out and cubbyholes articles, events listings, and display ads. In his most recent stash were clips about Saturday's ox roast in the Sonoma Plaza and the availability of fresh organic broccoli at the farmer's market. But Greg's stacks of clips only take him so far. The small shreds of torn paper often get lost or are soon outdated. He laments that there are so few sources for feeding his voracious appetite for information.

Once the Web team got to know Greg, they quickly realized they needed to design their new site for him. And no, Greg isn't publisher's son. He isn't a newspaper subscriber, either, but someone who prefers reading the paper online during his coffee break. Actually, truth be told, Greg does not even exist. Greg is an imaginary character, better known in the high-tech field as a persona—a hypothetical-user archetype, developed for interface design projects and used for guiding decisions about visual design, functionality, navigation, and content. (See the "What Are Personas?" sidebar)

---

**What Are Personas?**

- Personas are hypothetical archetypes, or "stand-ins" for actual users that drive the decision making for interface design projects.
- Personas are not real people, but they represent real people throughout the design process.
- Personas are not "made up"; they are discovered as a by-product of the investigative process.
- Although personas are imaginary, they are defined with significant rigor and precision.
- Names and personal details are made up for personas to make them more realistic.
- Personas are defined by their goals.
- Interfaces are built to satisfy personas' needs and goals.

PERSONA LOGIC

With his best-selling book, *The Inmates Are Running the Asylum*, Alan Cooper has kindled a strong interest in personas among designers, programmers, and project managers alike [1]. The author's leading interaction design firm has often used personas for developing consumer hardware and software products, but personas can be applied to information-intensive Web design projects, too.

The gist of Cooper's argument is fairly straightforward: There will be far greater success designing an interface that meets the goals of one specific person, instead of trying to design for the various needs of many. At first blush, though, it may seem downright counterintuitive to design for just one person, whether hypothetical or not. How can designing for a single soul possibly ensure an interface that supports the needs of many users? But as an interface becomes more layered and complex and tries to serve an ever-widening audience base, Cooper's argument holds true.

As long as personas are developed with diligence, the planning and development tool has three key benefits for interface design projects of all kinds. First, personas introduce teams to hypothetical users who have names, personal traits, and habits that in a relatively short time become believable constructs for honing design specifications. Second, personas are stand-ins with archetypal characteristics that represent a much larger group of users. Third, personas give design teams a strong sense of what users' goals are and what an interface needs to fulfill them.

MICROSOFT'S WOES

One of the best arguments for using personas comes from some misguided design efforts at Microsoft. When the software giant geared up to redesign its well-known Microsoft Office Suite for a 1997 release, the research team soon discovered that many of the features users wanted already existed. In fact, four out of five of the features users requested for Office 97 came with Office 95. The outcome of Microsoft's design approach is just what Cooper warns against. In trying to support the diverse tasks of many conceivably different software users, Microsoft cobbled together a product that was bloated with capabilities and ended up satisfying few users.

(See the "Pointers for Developing Useful Personas" sidebar)
BBC'S GAINS

As information-intensive Web sites become larger and more complex, defining personas at the planning stage has definite advantages. The British Broadcasting Company (BBC) used a cast of personas with success late last year as part of their methodology when they tackled the redesign of their expansive site, BBCi [2]. The Web team developed a set of seven representative personas, each of whom had goals the designers planned to meet through their redesign.

"Mandy Daniels" was the primary persona, or the main focus of the design. A 36-year-old harried single mother from Northampton with an America Online (AOL) account, the Web did not wow Mandy. She occasionally turned to sites in search of information about parenting, educational issues, entertainment, holiday planning, and consumer issues, when she found time apart from her hectic schedule. This, of course, was only if her boyfriend wasn't using her computer.

Boiled down to a one-page narrative about Mandy's life, the thumbnail sketch was crucial in the Web team's decision-making process about the redesign. Notably, translating Mandy's qualitative life goals into design goals led to a new home page design with an intuitive grid layout. The grid quickly oriented Web neophytes on the run—like Mandy—to the site's content.

At the same time, the layout could also easily satisfy the project's secondary, less needful, and more Web-proficient personas: a retired volunteer worker; a technical services company owner; a self-employed electrician; and three students, ranging in age from elementary school to college. Drawing from all of the personas' needs and goals, the site's home page delivered "clickless access" to what users cared most about, especially children, education, recipes and food, entertainment, sports, and consumer news. With the grid, the site also became more easily updated and maintained by BBCi staff.

DEVELOPING PERSONAS FOR INFORMATION SITES

Through a series of ethnographic interviews with real and potential users, personas take on flesh and bones. Developing personas usually starts with collecting some demographic data, such as age, education, and job title. But the goal is to collect qualitative—not quantitative—information. Interviewers need to gather stories, quotes, and anecdotes from interview subjects that pertain to their environment and behaviors and reveal their attitudes, Web usage habits, and goals. (See the "Essential Details for Defining Personas" sidebar)

Despite the apparent simplicity, the persona interview needs to be rigorous. Interviewers need to ensure that useful details are collected for informing decisions about the design. To get at this data, interviewers have to listen closely to subjects and also be discriminating about the details they select to use in pulling together their final personas. Undoubtedly, more information from interviews will be collected than can be used.

<table>
<thead>
<tr>
<th>Essential Details for Defining Personas</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ A name (a real name like Greg or Madeline, etc.)</td>
</tr>
<tr>
<td>☐ Age</td>
</tr>
<tr>
<td>☐ A photo</td>
</tr>
<tr>
<td>☐ Personal information, including family and home life</td>
</tr>
<tr>
<td>☐ Work environment (the tools used and the conditions worked under, rather than a job description)</td>
</tr>
<tr>
<td>☐ Computer proficiency and comfort level with using the Web</td>
</tr>
<tr>
<td>☐ Pet peeves and technical frustrations</td>
</tr>
<tr>
<td>☐ Attitudes</td>
</tr>
<tr>
<td>☐ Motivation or &quot;trigger&quot; for using a high-tech product (not just tasks, but end results)</td>
</tr>
<tr>
<td>☐ Information-seeking habits and favorite resources</td>
</tr>
<tr>
<td>☐ Personal and professional goals</td>
</tr>
<tr>
<td>☐ Candid quotes</td>
</tr>
</tbody>
</table>

Source: Alan Cooper, The Inmates Are Running the Asylum: Why High-Tech Products Drive Us Crazy and How to Restore the Sanity, Indianapolis: Sams, 1999, Chapter Nine. (Wording condensed and modified.)
A good place to start an interview for an information site is with an open-ended question, such as, "Tell me about the first 2 hours of your day on an average weekday." Next, follow-up questions should be asked to gather specific details. So, for example, if a subject says she reads a newspaper, the interviewer might follow up by asking which publication, which sections of the paper, and whether the version is online or print. Likewise, if a subject says she checks her e-mail at work, the interviewer should ask how often she does this during the day, what e-mail utility is used and why, whether e-mail is checked without interruptions or with constant distractions, whether any sites are accessed during the same sessions and, if so, which ones, and so on.

Mastering persona interviews requires unearthing subjects' unstated goals, not just eliciting a recitation of their daily tasks. It is crucial to identify users' narrow goals about using the Web, as well as broader ones about life, since these goals drive design decisions. Encouraging subjects to candidly and personally talk about their lives takes time. It is not unusual for some interviews, depending on what kind of interface is being designed, to last a few hours at least. A field visit, if possible, where behavior can be directly observed, can reap useful findings for developing personas, too.

**BREATHING LIFE INTO PERSONAS**

When a persona is given a name, a photo, and one or two personal details, then the hypothetical constructs easily spring to life. With Greg, the persona for the newspaper's project, we included a tidbit about Greg's interest in fresh organic broccoli and an upcoming ox roast. It was this smattering of fictional details that didn't blur Greg's narrative description but helped make him "real."

In no time at all, the Web team began to refer to Greg by name, as if they actually knew him. A poster with a photo of Greg, including his brief narrative description, was soon propped up on the edge of the Web team's meeting table. During the time it took to create the site, the team checked back in with Greg, using him as a design benchmark. Would this content meet Greg's overall needs? Would Greg be able to find what he needed in the time he was willing to spend on the site? Would Greg have any interest in using a mapping feature like the one we were considering licensing?

**NO PRESCRIBED FORMULA**

Since using the persona technique for Web development projects is a relatively new investigative technique, there are few hard and fast rules. With each interview, patterns will emerge about user types. Eventually, separate user types can be grouped into one category, based on similarities between subjects' goals, needs, and behaviors. Likewise, there is no prescribed number of persona types to develop. But as a rule of thumb, the total number of personas should be kept relatively limited in number—three to seven personas—so that they are distinct and can be easily remembered by project members.

Despite the individuality of each project's interviewing process, there is a definite pecking order for personas. One persona needs to become the primary persona, or the primary focus of the design. The other key personas are secondary personas, archetypes who are important for the design but not as "high maintenance" as the primary persona. On some projects, there may even be a "negative persona." This anti-persona represents a group of users the site is intended to never really satisfy.

Regardless of how many different secondary personas are identified for a project, it is the primary persona who dictates key design decisions. The primary persona is someone who requires a unique interface to be satisfied. In other words, the primary persona's needs cannot be met by an interface that may indeed satisfy a secondary persona.
PUSHBACK AGAINST PERSONAS

Project stakeholders, or "higher-ups," may initially greet the new idea of personas with some resistance. Personas frequently fall under fire because they are misconceived as being no different from traditional market segmentation tools.

Although both planning tools can be effectively used together with some positive results, market segmentation and personas are quite different. Market segmentation is a quantitative forecasting tool that provides a breakdown of a consumer market and predicts someone's willingness to buy. Market segmentation derives findings from large samples with averaged data about demographics, behaviors, and attitudes.

By comparison, personas are a qualitative decision-making tool. A small set of one-on-one interviews serves as descriptive fodder for determining a set of specific characters that represent the same goals of many likely users. Personas, in turn, enhance team decisions about the site's design, especially what features need to be included and how the site will be used.

A MUCH-NEEDED POWER TOOL

In the last few years, the return on investment of Web design dollars has fallen under close scrutiny. A recent report by an independent technology research firm, Forrester Research, is a troubling harbinger of project allocations and outcomes [3]. Forrester reports that many redesign efforts do little with investment dollars for improving sites because they do not systematically attack the problems that most need fixing.

In their study of 20 site owners undergoing major redesigns, Forrester found that redesign goals were often soft and, in some cases, even unidentifiable. Most site owners described design goals vaguely by saying they were "updating their look and feel" or "making the site simpler." Additionally, there were no measurable goals for assessing the success of their sites' redesign changes (a measurable goal would be an increase of 25 percent more leads to sales teams, for instance). The Forrester report went on to make a strong case for the more diligent tracking of redesign investments and concluded that measurable user-experience goals are critical to online success.

Personas are power tools that give a much-needed focus to interface design projects. Not only can personas hasten the development process by curtailing a team's "blue-skying" about a site's look and feel, personas can also help define measurable project goals in relation to users' goals, improve Web team dynamics by grounding interface design decisions, and focus a team's overall communication. When personas are used in combination with other user-centered methods, such as task analysis, card sorting, and usability testing, there is a strong likelihood that a far more usable design will be developed.

The Cast for Northbay.com

Our persona investigation for the newspaper's developing site, Northbay.com, began by sorting through stacks of paper. We spent a month culling through industry reports about online newspaper usage and the paper's own research, measuring online usage patterns for entertainment information. The market data reaped some useful demographic findings about our target user group and helped define the interview sample for persona building.

At last, we were good to go—our market research review was completed and our persona interviews were lined up and scheduled. All in all, the persona interviewing process took about 3 weeks to complete. Interviews ran 1-2 hours each, and most were rich with details. Based on the subject interviews' goals, we created four personas for the project: Greg, Robert, Sarah, and Annette.
THE PRIMARY PERSONA IS TOP DOG

The project's primary persona was Greg. His goals—being a great father and interesting date—drove the site's design. For someone active like Greg, the site's design needed to be accessible and quick to use. He isn't willing to dig more than a link or two into the site; either what he wants is on the first load of the home page or he goes somewhere else. Since he is a local guy, the site needed a large stockpile of constantly changing, local events information for both kids' activities and adult splurges. Greg isn't just a weekend tourist.

With the interface we designed for meeting Greg's goals, we also satisfied the needs of the secondary personas, Robert and Sarah. Robert is a retired business executive, who had newly arrived in the North Bay and lives in a home he bought 3 years ago in a small subdivision north of town. Like Greg, he is active and adventurous. He likes to hike and take long drives on country roads with his wife to see what new place he'll discover and what new acquaintances he'll make. He often entertains family and friends coming to the wine country on weekends.

Unlike Greg, Robert has plenty of time on his hands; his kids are grown. Robert is out to make up for all of the leisure time he lost when he worked 60-plus hours a week. As far as Northbay.com's design was concerned, Robert has the time, energy, and computer skills to "digitally putter" and browse. As long as Northbay is easy to use and current, Robert will be satisfied.

Sarah is another secondary persona we defined for the project. A salesperson for Demptos Glass Company, Inc., a wine bottle manufacturer in Napa, Sarah rents a condo in Yountville. She regularly travels the North Bay region, "wining and dining" clients, as well as prospective customers. She prides herself on being "in the know"—an insider in the wine country scene, which includes her expansive knowledge about wineries, the arts, restaurants, and the wine industry.

In a nutshell, Sarah is a bon vivant who sees herself as a trusted opinion leader within her circle of friends. As long as detailed and current restaurant and movie reviews are posted on Northbay, then, sure enough, she will find them. Northbay is just one of the virtual stops she will make before logging off and heading out in her BMW on weekly sales rounds.

NEGATIVE PERSONAS DEFINE NON-USERS

Annette was the project's negative persona—someone for whom we were not trying to design the site. Annette is an office manager and a creature of habit. Ensconced in her routine life in her rental, she takes her three kids once a week to the same Olive Garden restaurant off Highway 101.

When all is said and done, Annette admits she could be living anywhere "out here," she really does not care to take advantage of the North Bay region. She seeks stability and order in her busy life as a single mother. Northbay, a hands-on interactive entertainment guide, is a site that Annette is not likely to use with any frequency.

A DESIGN FOR PERSONAS

In order to meet the personas' collective goals, the design of Northbay.com includes an interactive calendar with a comprehensive listing of upcoming events that are accessible by clicking on a given date. An interior page for each entry has a link for a map with driving directions and a table with the event's sponsor, cost, contact information, and originating source. In order to make the site more of a community resource, the feature also allows users to submit events.

Another "persona-pleaser" is the "Search n' Go" feature on the home page. The quick search feature allows users to conduct a filtered, targeted search by putting in a keyword and then narrowing down a search with a
click to a radio button that specifies a movie, restaurant, recreation, or classifieds search. The filtered restaurant search is likely to satisfy Sarah, who's a savvy user with narrow content needs. But in order to satisfy Greg, too, we added a detailed "kid-friendly" rating for each restaurant listing in the database. That way, Greg could quickly glance at page of listings and decide whether the restaurant was a good place to go with his kids or on a romantic date with a girlfriend.

The "North Bay Top 10" on the home page is added for users who like to browse instead of target search. The feature was designed to satisfy Robert, who is curious and open to suggestion. But the list satisfies Sarah, too, who needs to be knowledgeable about the talk of the town. Finally, the Top 10 is likely to keep Greg happy when he wants a one-stop answer to his burning question, "What's going on this weekend?"

The Persona Chart for Greg

Age: 37

Occupation: Senior Loan Manager, Construction and Mortgage Lending Group at Exchange Bank in Santa Rosa.

Home life: Divorced, single dad, two children (Erin, 12, and Kyle, 8), joint custody of kids.

Education: BS in Accounting

LIFESTYLE

Activities: Goes out to dinner once a week with kids, three times a month for a nice dinner and a bottle of wine with a girlfriend. Fishes at local lakes, canoes, hikes, tries to take his kids on a different outing each weekend "to keep our time together special." Plans to take kids to an ox roast in Sonoma this weekend.

Ultimate goal: To discover new things to do with his kids. To get his kids out and away from the TV. To be a good, caring parent in an increasingly crazy and busy world.

WEB USE AND INFORMATION NEEDS

Web usage: Checks e-mail five times a day, laptop, T1 line at work, plays fantasy sports on AOL account, reads restaurant and wine reviews a couple times a month.

Web competency: Intermediate. Thinks the Web is easy to use.

Frustrations with the Web: Spam and lack of credibility of information posted on sites.

What kind of information is hard to find: Local sports information, up-to-date information about community events that are happening this weekend, and nontourist practicalities, such as whether broccoli is available at the farmer’s market.

Frequent sources of information: Anything that’s handy, including clipped ads from the paper, magazine listings, local Websites, and other listings of upcoming events.

Quote: "I'm an explorer. I'm the kind of guy who wants to know every road in the county and where it might
Q: You are a passionate advocate for using personas. How did that come about? How did you become a persona expert?

A: I guess you could say I became a persona expert by developing the method for creating personas and using them to solve design problems. Alan Cooper [founder of the interaction design firm bearing his name] originally came up with the idea of using a fictitious user with a set of goals to help guide and focus the design of a product. Over the years, I and the other designers at Cooper have turned that original idea into a rigorous form of user model, based on behavior patterns that emerge from ethnographic research. A set of personas represents the key behaviors, attitudes, skill levels, goals, and workflows of real people we interview and observe, which we then use along with scenarios to guide the product's functionality and design. The method has matured to the point that anyone trained in it should be able to get the same personas from the same data.

Q: I'm hoping you can give us a brief example of how personas might actually work. Let's say you're a corporate librarian, designing a market research intranet to give fellow workers access to industry analyst reports, online commercial providers (like LexisNexis), and valuable research Web sites. You decide to use personas. Who should conduct the persona interviews? Who should be interviewed?

A: There are a lot of factors that go into planning your interviews. Basically, though, you'll want to interview types of people whose needs you expect will be different. For example, would you expect the needs of an individual contributor to be different from those of a manager? Will new employees' behavior differ much from that of veteran employees, or will employees in the marketing department differ from employees in HR? In a sense, you're forming a hypothesis about who your personas might be. Ideally, interview a broad set of people, because you might find differences you didn't expect.

Ideally, the same people who will be doing the design—because they'll ask better questions—conduct the interviews. They'll need this kind of contextual information later on. The interviewers should be people trained in ethnographic techniques, who also don't have a particular organizational or product development agenda to push.

Q: What's your estimate of how long it might take to do the interviews, compile the findings, and develop the personas?

A: We find that for most simple consumer products, that takes somewhere on the order of 2 weeks, maybe a little more. For a complex enterprise application with multiple interfaces, it may be 4 or 5 weeks, or possibly a little more. However, we don't actually start with user interviews first. Before we talk to any users, we speak with the business stakeholders—the people who are funding the initiative, or who have to build, sell, or support the product. It's important to understand the organizational goals, so you can put the user goals in context. If you can't accomplish organizational goals like reducing training time and support costs, increasing efficiency, and so on, you don't have a viable product.

Q: Does the primary persona usually turn out to be the one that has the fewest skills or is the lowest common denominator in all of the people that are interviewed?

A: Not necessarily. That's fairly common for the simplest consumer products, when you want someone to be able to walk up and immediately use the tool. With productivity tools, whether they're for consumers or businesses, the primary persona is more often what we call a "perpetual intermediate," which means someone
who has a grasp on the critical tasks and domain knowledge but is not—and never will be—an expert. In some cases, the choice of primary persona is not so much about skill level, but about how representative that person’s goals and tasks are.

Q: You’ve used personas a lot in your work at Cooper. Who is one of your favorite personas that has been developed for a project, and why?

A: My favorite persona ever was Gerta Weissman, whom we developed for a long-term healthcare management system that would simplify the management of clinical and billing data. Gerta was what we call a "served persona"—someone who will never sit down and use the product but whose needs are critical in the product's design. Gerta was an elderly woman with Alzheimer's who lived in a long-term care facility. It would have been really easy to put a barcode bracelet on Gerta's wrist to simplify tracking her prescriptions and treatments, but Gerta's goals about being treated with dignity wouldn't allow for that. Although we spent most of our time with our clinical and business user personas, Gerta kept the whole team focused on the people we were ultimately serving.

Kim Goodwin is VP and general manager at Cooper [www.cooper.com], a leading interaction design consultancy. Kim's design expertise and teaching skill have made her popular as a speaker at conferences, universities, and corporate events. At Cooper, Kim ensures excellent delivery of Cooper's design consulting and training services. Kim has played a major role in developing Cooper's Goal-Directed methods and has led the effort to turn those methods into an interaction design curriculum. Kim has led a wide range of design projects, from e-commerce applications to information appliances, IP telephony systems, and healthcare applications.

REFERENCES:

