

Creating Applications That Engage and Delight Users



How an Integrated Approach Can Vastly Improve
Persona Development and Management

INTRODUCTION

Personas—fictional “customers” used to help companies of all kinds more closely match new products and services to customer needs—have emerged as an important tool for software development organizations in their ongoing quest to develop applications that are enthusiastically embraced by customers. In fact, personas have become a staple today among many organizations for their ability to dramatically improve the utility and acceptance of their end products.

However, recent studies have shown that while personas have become more popular among software companies (as evidenced by their increasing investment in them), most organizations’ personas are neither particularly strong nor extensively used. The problem, in our experience, is that many companies lack formal persona development and management processes, as well as the proper tools and technologies to support those processes.

In this paper, we explore why personas remain a valuable tool for application developers, the challenges companies have in developing personas, and how some leading software development organizations are taking an integrated, life cycle approach to improve the accuracy, relevance and use of personas to fuel new-product success.

About the Author

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THE POWER OF PERSONAS

Creating applications that win market share and drive business growth hinges on meeting the most important users' needs and preferences as closely as possible. A persona is one of the most valuable tools technology companies have in this enduring quest to delight users.

A persona is a fictional, composite identity meant to represent an important user of an application being developed. "Beth" might be a 45-year-old C-level executive working in Atlanta with very little time and deep technology experience, for example, while "Steven" could be a 30-year-old junior-level management consultant in New York who spends a lot of time working in groups and at client sites. While fictional, such personas ideally combine accurate data from a variety of trusted sources into a cohesive and meaningful identity that helps inform efforts to develop products for real customers who share those characteristics.

Personas differ from user profiles in that while user profiles describe types of users, usually represented by ranges of characteristics, personas are tangible descriptions of specific people. At their best, personas bring disconnected research and data together within the context of a user-centered design approach, providing a representation of user profile data that is easily understandable and accessible to team members.

Furthermore, while user profiles provide statistically accurate information (such as what the most common tasks or goals are for a given group), personas should provide insights and context, such as why these tasks are important to them or how satisfying a goal will impact their work. This is especially vital in business applications or portals, for which it is necessary to provide features that meet real user needs and design an intuitive workflow that matches the user's work patterns. Product managers can validate requirements against the personas and designers can walk through workflows using each persona, thus ensuring no obstacles exist.

These attributes make personas a powerful tool for user-centered design. They can be applied to decisions throughout the process, from project planning and prioritization, through design and development, to evaluation and testing. In particular, personas enhance application development by enabling development teams to understand user needs more completely and, thus, create applications that users more enthusiastically embrace. Personas also can help reduce development and testing time by minimizing guesswork, rework, and ineffective testing scenarios. Ultimately, when created and used correctly, personas can positively influence the market success of any type of software application.

THE CHALLENGES IN CREATING AND MANAGING PERSONAS

While more companies are recognizing the benefits of using personas in their software development process, many are finding that creating effective and accurate personas requires new methods, process and tools. Because of outdated or incomplete persona-development capabilities, many companies—especially large, geographically dispersed companies—often encounter a number of obstacles when developing and managing personas.

Challenge: *Lack of disciplined, structured process*

One significant challenge is gathering user information and synthesizing it into usable personas. Many companies simply do not have a disciplined, structured process for recording all the information that forms the basis of a persona—including demographics, workflow details, usage context, and especially qualitative feedback about needs, goals and barriers to achieving their desired state—and analyzing that information to define the core characteristics of each persona. Without such a process, persona creation can take far longer and cost much more than necessary, and the results can be inaccurate or ineffective personas that are of little use to application developers.

Challenge: Lack of collaboration

Another potential obstacle is lack of collaboration. Creating useful personas requires plenty of teamwork, from settling on the traits to include in each, to deciding the relative weights with which each persona will drive development efforts. Contributors to this collaborative effort should come from all corners of the organization, from marketing, to customer service, application development and corporate strategy. However, effectively engaging this diverse group of stakeholders in the persona creation process can be difficult—and failing to collaborate well can negatively affect how the persona ultimately is used, as one research professional at a software company relates:

The User Experience (UX) team has developed great personas. They performed contextual inquiry and gathered detailed research notes and observations. They conducted an affinity grouping exercise to identify and categorize key user attributes and behaviors. They compiled all this research into a set of visually appealing personas containing useful details. And now the personas are gathering dust. The personas have been delivered to product management and development, but no one outside of the user experience team seems to be using them. And if a user experience team-member mentions the persona as justification for a design decision, there is push-back. Stakeholders don't seem to recognize the personas as valid input for feature prioritization or design-decision making.

Figure 1. Main Challenges in Creating and Managing Personas



Challenge: *Poor communication and accessibility*

A third issue companies commonly experience involves persona awareness and access. Companies often do a poor job of not only communicating they are developing personas in the first place, but also enabling appropriate people throughout the organization to easily find and use them. It’s common for teams to spend considerable time and money to develop personas, only to see them “die on the shelf” because the teams didn’t properly inform the rest of the organization the personas existed—and make them easy to use.

Lack of communication also can result in wasted effort. For example, the UX team at a large technology company invested significant time and resources to research and create personas. Upon completion, as they were distributing the personas to other internal groups, they discovered the marketing team had commissioned similar personas from an external vendor. While ultimately the teams were able to merge their personas, a lack of communication by both teams resulted in unnecessary duplicate effort, expense, and time devoted to the reconciliation of the two persona sets.

Challenge: *Version control*

Finally, organizations often struggle to impose version control. All too often personas will be maintained by one group and distributed to other groups as hard copies or file attachments. This inevitably leads to out-of-date information, as the persona creators update their versions and others in the organization reference older copies. Companies also may be using completely different personas simultaneously across functional areas and teams, all purporting to represent the same key customers. Adding to the difficulty of version control is the fast-changing nature of the software industry, with which persona iteration must keep pace. This could mean semi-annual or even quarterly persona updates are necessary, depending on the nature of the business in question, which can consume substantial time and effort.

THE FULL PERSONA LIFE CYCLE

The preceding challenges can undermine a company’s efforts to create truly useful, effective personas. But a company also can easily avoid them if it approaches personas in the right way. By “right way,” we mean following a disciplined, integrated process that encompasses the full persona life cycle:

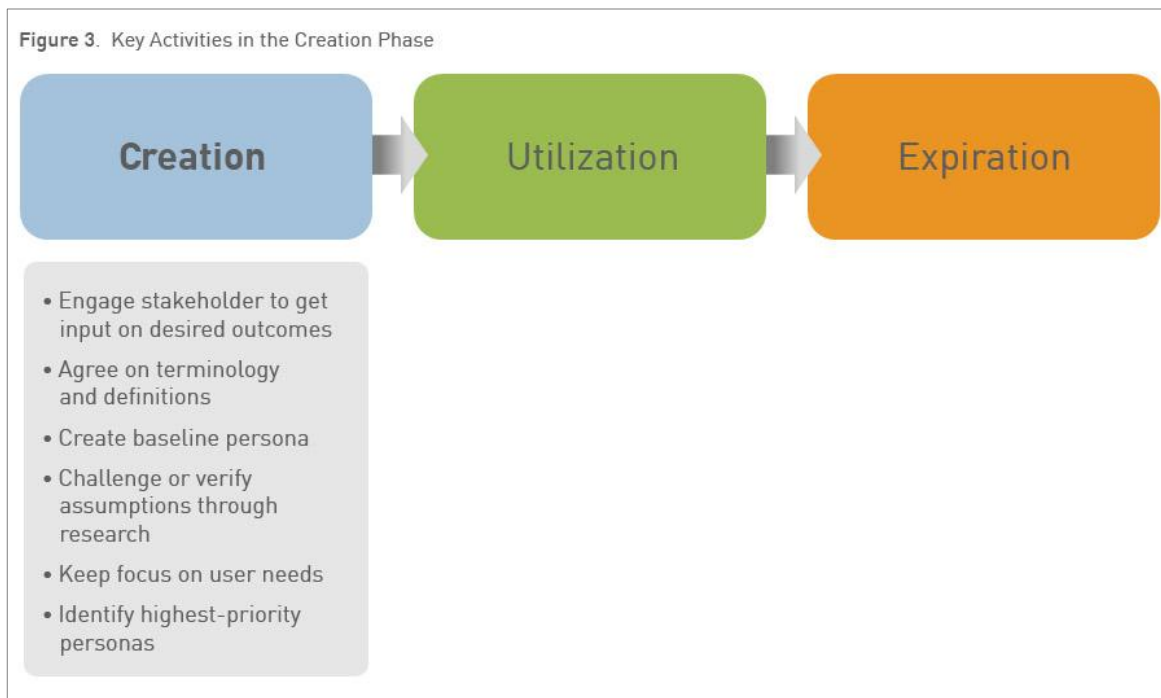
- Creation
- Utilization
- Expiration



Such a process can help companies engage the right people in persona creation, more effectively manage their portfolio of personas and related research, and ensure personas are used most effectively by those who need them.

CREATION

The development of truly usable personas should begin with collaboration among key stakeholders to share and document assumptions about the product’s intended user base and buyers. As mentioned earlier, getting stakeholder input on the goals and outcomes of a persona project at the kick-off is vital (as is getting stakeholders’ feedback at important points throughout the process). The fact is, when stakeholders are not an integral part of the persona development process, they may react with indifference or criticism when presented with what they perceive to be “the User Experience team’s personas.” But if they are active collaborators, stakeholders are much more likely to view the personas as “theirs” and, hence, embrace their use.



Engaging stakeholders early and often has another benefit: The persona creation process requires the team to discuss user priorities and goals in a detailed manner, a conversation that can be as valuable as the personas themselves. For example, to create personas, the team must wrestle with defining terminology, accommodating differing viewpoints, identifying common user goals and behaviors, and deciding as a group which elements are significant. For a team that collaborates in this fashion, the persona is not so much a documentation of rules or decisions made by others, but rather, a reminder of the decisions the team made for themselves.

The goal of the initial stage of development is to use the organization’s existing knowledge to create rough-hewn core or “baseline” personas—ideally no more than six for a given product—and identify places where research and data mining can be used to challenge or verify assumptions. Often this phase results in disagreement, and rather than resolve it, the project team should document key points of divergence and establish how data can drive resolution. Common areas of discussion include the differences between personas, particularly in terms of their needs from the product, and how a given persona’s needs should be prioritized.

Often the best way to answer these questions accurately is through high-quality research, generally in the form of interviews in users’ workplaces or homes, or wherever they will use the product being developed. A company’s

existing user and customer data also can be valuable, assuming it is well organized and of high quality. Indeed, personas hold the greatest value for project teams when they are the culmination and thoughtful synthesis of many sources of information about the user population, including primary research, demographic and behavioral data, and statistics on product usage.

The challenge during this stage is making sense of all the data and insights that often are available to the project team. The overall goal—finding meaningful, usable patterns and affinity groupings that support strong personas—depends upon not just performing well-conceived research and analysis, but also upon organizing and managing data to support collaborative thinking and decision making.

For example, a global hardware company researched and developed personas as part of a large-scale product design project. Prior to its research, the project team interviewed stakeholders and heard various ways of thinking about users. Regional sales managers at the company tended to emphasize geographic differences between users. Product managers focused on features and functions accessed by the users of different products. Training and support staff reminded the team of the importance of users' roles as a factor in how they worked with the product. One team member pointed out that if all these dimensions were different and valid, the company would be dealing with a possible matrix of $X*Y*Z$ combinations of user types (an unmanageably large number).

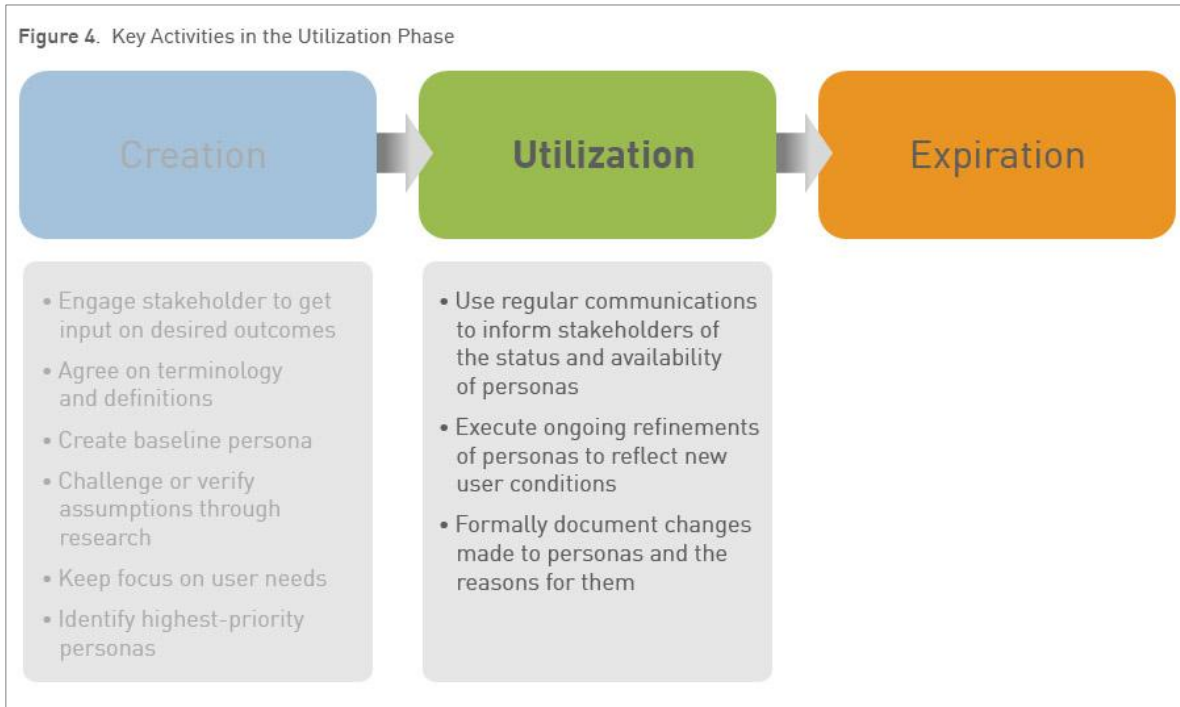
In this case, research and personas provided the keys to simplifying and clarifying a potentially complex and cumbersome user categorization issue. By interviewing a collection of users from across geographies, products and roles, the team was able to identify important common elements and differences across these dimensions. The right approach to understanding users wasn't to try to address the hundreds of possible user profiles, but to use research to identify the key combinations of user attributes, and use personas to make those key combinations memorable and usable.

As they develop personas, companies should consistently focus on user needs and goals, and on existing or competitive ways of achieving those goals. This could mean identifying problems users have with the current version of a product being updated or with competitive offers, or it could mean looking beyond the existing product or obvious competitive set to wholly different ways to achieve the user's goal. For instance, a company might consider whether users can call a customer service center instead of using the application, and if so, how the product being developed can solve their issue more effectively. As noted earlier, during such an exercise numerous stakeholders bring divergent agendas and ideas to the process, all advocating for their own preferred features and functionalities. A persona-driven focus on real, tangible user needs is critical to navigating this complexity—and to avoiding the "feature creep" commonly seen in many software products.

An overriding concern during persona development should be determining how many personas to create and identifying those that are the highest priority. No single product should have too many core personas. While the exact number varies by segment and organization, too many personas make it difficult to focus on what is truly important for a given offering, and may indicate the preliminary personas should be revisited and strengthened through additional research and analysis. Software companies should remember their goal is not to create a persona for every potential user subcategory, but rather to develop a collection of highly representative, high-priority personas. The prioritization process itself can have substantial value, as it can help product development and management teams openly discuss the positioning of their offer and the best ways of bringing it to market.

UTILIZATION

In the second phase of the persona life cycle, the emphasis is on making stakeholders within the organization aware that personas exist, and refining existing personas to keep them fresh and relevant.

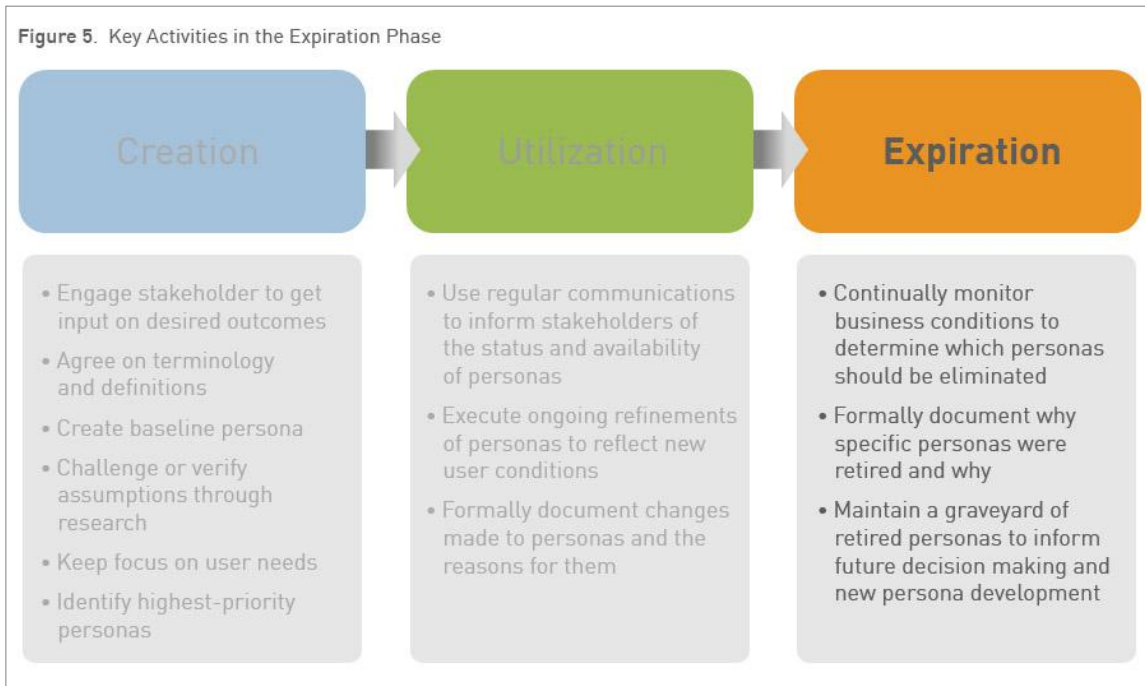


An effective persona management process insures stakeholders know the status and availability of personas for their projects. This can be done manually through regular communication about the creation and updates of personas on a project-by-project basis, although this approach could lead to “information overload” and cause recipients to eventually ignore these messages. Ideally, an organization can establish a common site in which all personas reside, allowing stakeholders to easily review the status of personas for their projects at their convenience.

In a well-functioning organization making full use of personas, ongoing refinements to personas will happen almost as a matter of course. Marketers, customer service staff and other team members will identify changes in the user base that must be addressed in the organization’s personas, or new research or other insights—such as from a customer satisfaction survey—will reach the team and push it to adjust its view of its customers. In other instances, more formalization and structure are required to keep personas up to date, including mechanisms with which to gather feedback on personas continuously, and regular reviews to verify the relevance and accuracy of each persona. A company should keep careful records of changes made to personas and the reasons for those changes—both to explain their evolution to parties lacking direct involvement and to prevent wasteful or misdirected revisions in the future. For example, “new” features or changes may in fact be re-hashed versions of old ideas that were reversed or eliminated for solid, data-driven reasons.

EXPIRATION

While some personas can be refined continuously and remain relevant practically forever, others eventually must be eliminated. In some cases, retirement is driven by a company’s shift in emphasis—for example, some personas for an internal business portal may need to be retired after a major reorganization has eliminated departments or merged functional areas. In other cases, technology changes—such as the rapid rise of mobile devices across demographic segments—may affect established personas to such a degree that retirement becomes more practical than the radical revisions required to stay relevant.

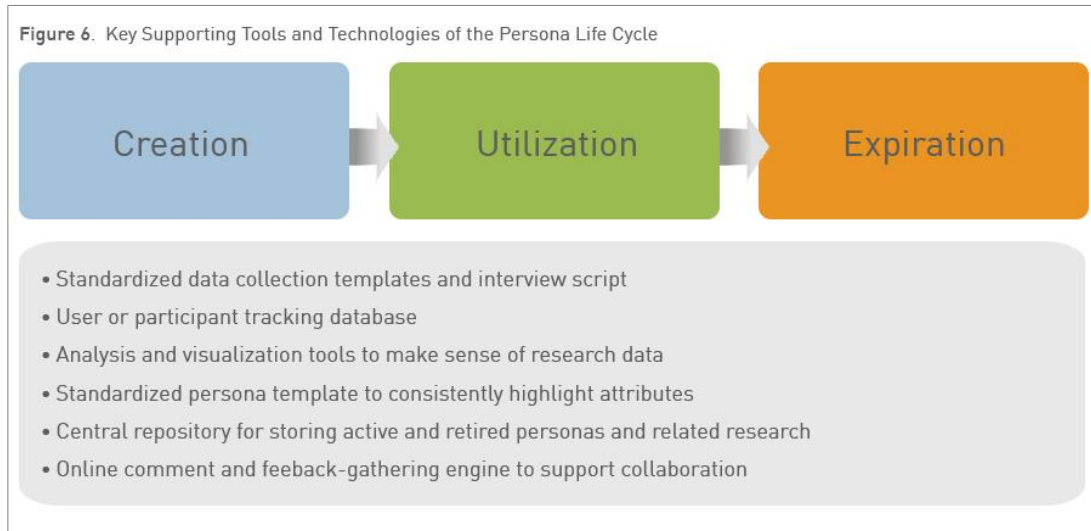


In some instances, the way users interact with early versions of a product may dictate the retirement of baseline personas. One game developer, for instance, had created personas for a new online game it was launching. Initially, the team had made assumptions about the game’s user base, relying on conventional wisdom about the demographics of their core audience (tech-savvy male teens and young men). However, as the product went into beta, the team gained further insights into their actual user base, and found that contrary to initial assumptions, the game appealed to young women even more than young men. Given the dramatically different values and needs of this audience, the team retired the preliminary baseline personas and replaced them with new personas based on actual research data and interviews pulled from the beta participants.

Regardless of the reason for retirement, companies should maintain a “graveyard” of retired personas for future reference and decision making. Retired personas can be useful in illustrating changes over time, predicting trends, and mitigating against past shortcomings. While a persona may no longer be appropriate for a certain product at a certain point in time, conditions may change and new projects may arise for which an old persona could shed some valuable insights or serve as a starting point for new personas.

KEY SUPPORTING TOOLS AND TECHNOLOGIES

Having a disciplined process for developing, managing and retiring personas is critical to creating high-impact personas that ultimately result in more effective applications. But to truly unlock the power of personas, a company also needs the appropriate technologies and tools that support key activities across the persona life.



In persona development, for instance, standardized data collection templates can be extremely useful. While casual conversation with users and customers can elicit valuable insights, gathering focused and reliable data requires a more formal approach. Having an interview script and a data collection template is important for an individual who is conducting interviews, but it is essential when an organization has more than one person conducting research and hopes to achieve consistent results. Interview scripts and data collection templates ensure that each interview covers the same topics, and that interview findings are reported in a consistent way.

A user or participant tracking database is another critical tool. Maintaining a database of research participants and interview subjects provides a number of benefits. It affords traceability if a team has to correlate a particular finding with the individual who made it. It provides cross-referencing if an organization wants to know not only which participants were in study X, but in which studies was participant Y involved. And it provides measurement that can enable a company to limit or track research participants' involvement in studies over a period of time.

Once data has been entered using a standard format, a variety of analysis and visualization tools can help a team make sense of it. Using such tools, a team can create descriptive statistics to provide a summary of users, perform statistical analyses to validate hypotheses, run cluster analyses to identify groupings of attributes, and explore many other techniques.

Like recording participant data in a common format, there are also numerous benefits to recording persona data in a consistent way. A standardized persona template allows a team to compare personas within and across different projects, as well as manage views or windows into the persona dataset. Such a persona template also enables an organization to create customized output formats that highlight the same attributes for all personas, and create a visual identity for a project or the team.

One of the big questions surrounding personas is where to store a company's entire collection of personas and body of related research. A centralized repository fills that need well. A searchable repository serves as a common site stakeholders can visit to easily find any research and personas, as well as review the status of specific personas for their projects. It also becomes the retired-persona "graveyard," providing an historical record of personas to understand how the personas may have influenced certain design and priority decisions at a specific point in time.

Importantly, a repository enables a company to control and manage access: Certain groups can be given permission to see data, and other groups permission to edit or change data.

Another benefit of a repository is that it allows a company to keep an electronic record of all its research and personas. Such a record makes it easier for a company to manage and view metadata such as the rationale for a particular change or update, as well as the history of changes to a research project or persona. This intelligence helps a company avoid repeating past mistakes. An electronic record also provides a retention period for personas. Personas are only as good as the assumptions and data on which they are based. Yet in most businesses, customer expectations and user priorities change on a regular basis. Having a record of when a persona was created and updated, as well as a reminder of when it is time to review the persona (and perhaps even retire it), can help companies ensure their personas are meaningful and relevant.

Finally, as previously discussed, engaging stakeholders and team members is crucial to the success of persona creation and refining. An online commenting engine is an effective tool for supporting such collaboration. It enables any group—and particularly large, distributed teams—to view and track comments on research projects and personas. It also can notify users when changes or comments have been posted to research or personas in which they are interested.

To enable the greatest process efficiencies and benefits, all these tools should be easily integrated and work together. For example, a common repository should be able to manage data collection tools, research findings, and personas, and to show relationships among them. Gathering comments and feedback in a single place simplifies review and maintenance, and makes it easier to assess the status of persona development. Tracking all persona-related work across all the phases makes it easier to manage the process and to determine when existing personas should be updated or retired.

CONCLUSION

In the software industry, like any other, customers are always the ultimate judges of a product: If it meets their needs, it will succeed. If it doesn't, it will fail. It's as simple as that.

What's not so simple is understanding precisely what those needs are and how they change over time. The software industry is littered with products that either failed to connect with customers at the outset or initially were hits but fell out of favor because they didn't evolve with those who used them.

Personas can be a very powerful tool for helping software companies get beyond traditional customer demographics and user profiles to "put a face" on the user of an application—and use that "face" to inform the development of a product that gives customers exactly what they want and need.

But not all personas are created equal. The most effective ones are those that are the result of an integrated life cycle process just described. By employing such a process, and supporting it with the right tools and technologies, software companies can create personas that application developers can use to bring innovative, relevant and compelling new products to life.

ABOUT TANDEMSEVEN

TandemSeven creates compelling digital user experiences across platforms and channels, including portals, business applications, Websites, and mobile and tablet apps. The company was founded on the principle of design and technology working in tandem to create superior user experiences. For over ten years, TandemSeven has helped world-class organizations achieve business value, including Bank of America Merrill Lynch, Bloomberg L.P., Campbell Soup Company, Citi, Experian, Orbitz Worldwide and Staples. The company is headquartered in the greater Boston area with offices across the United States. Visit <http://www.tandemseven.com>.