Abstract
Although Cisco’s tag line for fiscal year 2007 is “Lead the Experience,” not all Cisco product teams have historically focused on designing products that facilitate user success and delight. The Cisco User Experience Design (UXD) Group provides tools that stimulate a UXD culture, one of which is personas to catalyze a common understanding of users and a centralized persona database. The challenge has been that engineers at Cisco could opt out of using personas. This UXD Group therefore had to produce personas and artifacts that increase the fun and the stickiness of persona characteristics as a basis for product design. In November 2005, the UXD team won an award for developing best practices in product development for creating these personas by vice presidents from across Cisco.

Keywords
Persona, User Experience Design, User Experience Teams, Design.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous. D.2.10. Design D.2.2 Design Tools and Techniques.
Background
Ever since Alan Cooper published “The Inmates are Running the Asylum” and spoke in Chapter 9 about personas [1], many practitioners have spoken of their best practices with personas [2], [4], [5]. While UXD teams in some companies have investigated creative ways to make sure their personas are deeply memorable (for example, baseball cards, wanted posters, hallway posters, mugs, and so on), few have published alternate methods for making the persona characteristics in themselves more interesting and sticky. The purpose of this experience report is to describe the successful, and somewhat controversial, artifacts the Cisco UXD Group brought forward to build fun, stickiness (memorability), and confidence in persona content for product teams.

A persona—as an archetypical figure—can guide decisions about product features, navigation, interactions, and even visual design (among other factors). By designing for the archetype—whose goals and behavior patterns are well understood—teams can satisfy the broader group of people represented by that archetype.

Most practitioners would likely agree that in our work environment, we all perform those tasks on which we are evaluated. Likewise, we tend to ignore those tasks for which we are not rewarded. Just so, developers (of both hardware and software) in resource-challenged companies (such as Cisco) pay attention to UXD artifacts such as personas when their companies invoke a governance model for UXD practices as part of the development cycle. When such governance models do not exist, and developers can opt out of key UXD processes, what creative measures can practitioners resort to for stimulating interest in these useful tools? This paper highlights specific measures the Cisco UXD Group took to stimulate such interest.

Just as UXD practitioners need to focus not just on usability, but also on desirability, usefulness, and sociability, the Cisco UXD Group decided to focus on the desirability and sociability attributes for personas. Because personas are now highly desirable, and indeed helped improve sociability, developers have embraced them. Today, engineers can be seen in the halls talking about their personas and related artifacts. But, is there a correlation—and more importantly a causal relationship between—fun and developers internalizing persona characteristics?

Our Process
When you walk the halls of Cisco, you find dozens of posters presenting the most important corporate message of the month. Typically, these posters show a picture of a human in context of an activity or project. The initial persona posters the UXD team created mirrored the typical poster format. To be sure, they were based on many months of user research. In fact, the UXD team had spent several person years gathering data on users, and stratified this data by market segment (Enterprise, Service Provider, Commercial, and Consumer). They identified user patterns, skill levels, likes, dislikes, demographic data, and so on. When the team assembled this data into a persona poster, the feedback from clients (developers) was that these posters look like other posters that would never catch their attention. There was nothing that compelled them to pay attention, especially in their 12-hour per day schedule-driven work life. The
 personas were not sufficiently different to catch the attention of developers.

In addition, although these personas were based on solid data, each time UXD team members brought the personas before a new group of stakeholders, the stakeholders identified what they felt were missing or inaccurate components.

The UXD team wanted to find a way to address both the following questions:

- How do we stimulate interest in personas, so developers internalize key characteristics of each?
- Is there a way to produce personas so that the content seems final, or beyond criticism?

Team members recognize that personas are living artifacts that need to evolve as user needs and their interaction with technology changes. At the same time, if stakeholders spend time criticizing completed content and apparently dismissing the personas as not relevant, it seemed likely they have not accepted the persona, let alone internalized its content.

**Assembling a sub-team**

The leader of the UXD group assembled a small sub-team dedicated to identifying a persona style that would at least double interest in and memorability compared with the persona style at the time.

In addition, to ensure this sub-team thought “out of the box,” management hired a creative representative from SMART Design. This designer helped in many ways, not the least of which was not being constrained by apparent political factors within the organization, or the UXD Group’s impressions. The designer also worked with the team to analyze workspaces and "lifestyles" of stakeholders to ensure that the personas would be useful and engaging. By looking at day-in-the-life experiences of key stakeholders, they were able to generate contextually—and culturally—appropriate solutions. Among other cultural attributes, engineers leverage action figures from movies such as Spiderman for their product codenames. Moreover, they post pictures of these caricatures on mugs, cubicle walls, and T-shirts.

This sub-team posed these questions:

- Do we need to stand out (for example, use action figures, photo-realistic representations, anime-type artwork, or some other model), or "fit "with visual norms (for example use pictures of humans) to be accepted?
- How do we stratify between categories of users within a market segment (end customer versus resellers)?
- Regardless of the pictures or models used, what visual style can we use to make posters compelling?
- What type of communication assets should the team use (posters, pop-up figures, and so on)
- What specific information should be included in each persona asset?

This team spent time validating user behavior patterns, goals, skills, attitudes, current understanding of tasks and tool usage, environments, business pressures, ease
and time in deploying and maintaining Cisco products, and buying patterns for both customers and resellers.

They leveraged feedback over several iterations from key stakeholders and validated the content with customers and resellers.

When the question arose of what types of pictures should be used for the persona characters themselves, the sub-team evaluated many concepts, and ultimately settled on the concept of physical figures that appeared very human-like. Initially, the team thought posters, wallet cards, screen savers and other more traditional methods were appropriate. It was after identifying action figures as a possible communication vehicle that they considered a wide range of other possibilities (such as mugs, cardboard figures, t-shirts, and other items typically associated with pop-culture). These figures took on a life of their own, which was tremendously fun for the design team, and a positive indication that they would be equally engaging for users. Figure 1 depicts the final action figures. These figures would be dolls that could be photographed in different contexts to represent users (even in day-in-the-life scenes). This simplified the need to arrange photo-shoots around the schedules of real people (which the team had often found difficult previously). It also made people pay attention to the images because there was suddenly an action figure appearing in an environment that before was simply another human in a server room.

The design team recognized that there were a lot of patterns and repetition in the scenarios and environments in which they were working and designing for. It was therefore important to make very familiar scenes get a second look to help people consider product design from a fresh perspective.

The reaction from both management and from the rest of the UXD team to the use of action figures was at first quite interesting: It was a resounding “no way.” Concerns included:

- Will developers be able to empathize with a non-human? (UXD team issue)
- Reputation—if we use dolls, will product teams take us seriously? (Management concern.)
- Would this format really stimulate greater interest anyhow? (Universal question.)

Other factors arose as well, but these represent the core concerns. The group concerned with empathy suggested there was a broad wealth of data proving that personas were so successful only because they used the faces of real people. They pointed to data on the “Uncanny Valley” syndrome. This phenomenon suggests that (to quote Wikipedia) “if an entity is sufficiently non-humanlike, then the humanlike characteristics will tend to stand out and be noticed easily, generating empathy. On the other hand, if the entity is “almost human”, then the non-human characteristics will be the ones that stand out, leading to a feeling of “strangeness” in the human viewer.” Some members of UXD team therefore suggested that developers would not possess empathy for very human-like figures to the same extent they could possess with photos of healthy humans.

Management and a few others pointed out that researchers might have concluded that human faces
were a requirement, but we had not seen rigorous studies performed with personas (as opposed to movies and artwork) that prove this requirement. We could therefore not be sure that product teams could not develop an empathetic bond with realistic plastic representations of healthy humans. One group even argued that nobody seems to have a problem empathizing with Homer Simpson, Dilbert, or Anime characters! Indeed, it was during these discussions that the team first witnessed the ability to create one’s own character within Instant Message tools. Because all these questions were valid, management requested that the sub-team conduct studies to evaluate:

- Empathy of human versus non-human picture formats
- Memorability—would product teams remember key characteristics of personas in human versus non-human pictures (keeping all other factors consistent) more?
- Interest— Which would stimulate more interest—human or non-human picture?
- Reputation— how would using human pictures versus the use of action figures impact the team’s reputation?
- How are each of these factors impacted by the specific type of doll (photo-realistic versus creating more heroic archetypical figures with capes versus using anime-type artwork?

In The Persona Lifecycle [3], Rosa Guojonsdottir said that she likes to use sketches, rather than human faces to emphasize that personas are fictitious. This factor entered into the sub-team’s considerations, given the tendency of stakeholders to critique personas. The question the sub-team asked was whether action figures or drawings would help a product team understand that the personas represented archetypical users, not specific customers they may have met.

Due to budget and time constraints, the sub-team did not investigate less realistic action figures or Anime artwork. They decided to develop action figures that closely reflect their human characters.

Before crafting the detailed personas, the team identified a visual style for the posters, which could be used with either human faces or action figures. This style included how the content would be included, the overall layout, use of color, font, and shading to create visual hierarchy, a memorable quote and a character name for the persona, and so on. Figure 2 illustrates the final action figure concept the team used to obtain feedback.

To test its assumptions, the sub-team crafted four persona posters using photos of healthy humans, and four personas drawn to look like humans, but which appeared to be action figures (see Figure 2). The team chose to avoid the cost of building physical models for evaluation purposes, as the cost is rather high. Should the data suggest action figures achieved the team’s goals, they would then order a set and re-test their assumptions. Below is a comparison of the real photo with the action figure.

The sub-team crafted a presentation script to ensure consistency of presentation between conditions when evaluating the different conditions. They then conducted a between-subjects comparison. That is, they started with four product teams, and presented...
two with the human faces and two with the action figures. They spoke with the teams about characteristics of each persona for one hour. They also presented the same content to four individuals in each condition. In both cases, researchers told teams and individuals that they should keep the posters for a week while they were developing their products. That is, they should keep the posters in their cubicles while developing these features.

In one week, the researchers went back to the product team and asked these questions about the personas:

- Can you remember the different personas we talked about last meeting?
- What were their names?
- Please tell me about two key characteristics of the personas that you remember specifically.
- How would you rate your trust of us as a group for having crafted these personas (up, down, same)?
- Do you believe the information presented in the persona poster is accurate?
- Is the information complete?
- Did the poster help you actively think about the characteristics of the users based on the personas while developing their features?

This study was intended only to represent an initial investigation. The Cisco UXD Group hopes that another group will perform a more rigorous analysis in the future.

Of the two teams and four individuals in each condition, the sub-team observed some striking behaviors.

Product teams presented with the action figures spent time joking about them, and speaking jovially about them. However, when we asked the above questions, more than two-thirds of the responses were in favor of the action figures for each question.

Perceptually, the action figures, according to the sub-team’s research, build greater confidence in respondents than even the human faces, with much higher rates of recall.

Based on the data, the sub-team concluded that the action figures were at least as memorable, instilled greater confidence in the persona content, and that users could empathize sufficiently with the action figures.

**Proceeding with model construction**

Once the sub-team settled on action figures, the design consultant helped identify a manufacturer of action figures, and functioned as the contractor for their construction. To this day, the Cisco UXD Group works with this individual when it requires a new persona.

The team decided to craft one action figure for each persona in the Commercial and Consumer market spaces (12 total).

Figure 3 depicts the characteristics of one of the personas. Figure 4 depicts the final Eagle-Eye Edward persona poster.

A large percentage of Cisco’s end-user community is the resellers who deploy Cisco products for customers. The other segment is the end users themselves. The UXD team therefore used color to represent the
different categories of persona type. The name of the persona, and shading at the bottom of each persona represent the differences (yellow for reseller and green for end user). Figure 5 shows an end-user persona (Multitasking Millie).

Once the figures were complete, the team chose to add even more interest, and used Photoshop to insert the figures into day-in-the-life photo shoots, which can be seen toward the bottom of each poster (see figures 2, 4, and 5). These day-in-the-life photos not only captured the attention of development teams, but it also created levity, which reinforces the environment in which these characters would find themselves in any day.

Today, when product teams hold executive reviews to commit their projects, they include these persona posters to ensure everybody, including senior leaders, is on the same page about which personas this product supports.

The UXD team also created additional artifacts, including cardboard persona pop-ups for engineers to put on their desks. The team decided on pop-ups over other items, because these items have no other inherent use, and engineers thus far appear to find them appealing on their desks. One question for the team today is how they can make these personas even more enduring.

**Conclusion and Future Work**

Even with the overwhelming success of this persona style, there is still a minority of the UXD team that believes the action figure style detracts more than attracts. In any case, the Cisco UXD team would appreciate seeing or participating in a more rigorous analysis of photos of healthy humans versus personas drawn to look like humans, with the results discussed at a future CHI. The Cisco UXD Team’s results could be due in part to specific environmental variables at Cisco which might not exist in other companies. This said, action figures, combined with rigorous user research to inform personas, and visually interesting artifacts (posters and pop ups), have helped the Cisco UXD Group build a persona process that helps enroll engineers in the UXD process, and that in itself tips the weight in favor of the action figure model for now.

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**Citations**


