Personas for Intelligent Email

Project Installment #4 – Adulthood – March 5, 2015

Introduction

The key area we want to use the persona for currently is product planning.

There is also a need for the persona for triaging features / making better features, but this usage depends on having a batch of features that needs triage.

As we enter "adulthood", we want to be mindful of the problems with personas and attempt to address those that are relevant to adulthood.

From Pruitt and Grudin's "Personas: Practice and Theory", we know that projects trying to use personas can run into the following problems:

1) The characters were not believable; either they were obviously designed by committee (not based on data) or the relationship to data was not clear.

2) The characters were not communicated well. Often the main communication method was a resume-like document blown up to poster size and posted around the hallways.

3) There was no real understanding about how to use the characters. In particular, there was typically nothing that spoke to all disciplines or all stages of the development cycle.

4) The project was, in many cases, a grass-roots effort with little or no support from above (e.g., people resources for creating and promoting the Personas, a budget for posters, T-shirts, and other materials to keep Personas visible; "thou shalt use these characters" encouragement from team leaders).

As we discussed in our previous "birth" document, developers will find value in personas if they can use them to solve problems. To make this happen, points two and three from the above are most relevant:

- Developers need useful persona information delivered in an easily assimilated form.
- Developers may first need to be taught how to use personas. This teaching might take the form of some coaching, a problem-solving meeting, a class, or something else. It depends on the developers and the usage context of personas.

Entering adulthood, here is where we stand:

- We have a persona foundation document (without the big table of footnotes), but it is still mostly text.
- Development has explored what parts of Mitch are useful, realizes how Mitch could be useful, but doesn't have experience using Mitch in an authentic development process/function.
- There is likely additional communication and teaching required to help make the persona successful in adulthood.

Revisiting Our Desired Process Changes

Improve feature triage:

Shahed mentioned that had the persona had been made in the past, he would understand better how to select machine learning features for the primary persona, perhaps using a hierarchical learning model instead of a flat model. Development came up with this example during the birth meeting and we talked through how the persona would help. Most of this "help" is giving development the information they need to better triage features.

Improved shared understanding:

The development team often feels like they have different pictures in mind of the users who run the intelligent assistant. Having Mitch be present and having easy to access push and pull ways of getting information about Mitch should help improved shared understanding.

With both of these process problems that we'd like to improve, there is some challenge to see how much development will embrace Mitch in adulthood. While acceptance of Mitch as a useful tool seemed very positive during the development of Mitch and during the birth meeting, development changing some of their work habits will take some effort.

Revisiting Our Desired Product Changes

Improve user-centricity:

The user-centricity problem still represents the workflows of a non-teaching professor that our executive sponsor would like us to support better. We believe there is enough information in the persona to improve user-centricity. We may need to supplement the persona with additional information.

As remarked above, we are aware that a persona is a useful tool that does improve user-centricity, but it doesn't remove the need for additional tools, data, and methodology that complement the utility of the persona.

Desired Development Use of the Mitch Persona

Our executive sponsor has indicated that he would like the intelligent email assistant to better support his common workflows.

As our "adulthood" for the persona project is compressed into a short time period, focusing on finding immediate value is paramount. There are two development tasks that we can do in the next two weeks where Mitch should provide value for the key stakeholders:

- Triage all the existing intelligent email bugs in JIRA
- Perform an initial chunk of the product planning for what we will need to do to make the assistant better support "professor" workflows

Actual Development Use of the Mitch Persona

Bug Triage

Development triaged all the existing intelligent email bugs in JIRA. Development was able to go through all the bugs in JIRA and use Mitch to reprioritize them. Surprisingly, many bugs were changed in priority and several were re-categorized. Several examples are given below.

- **TT-3127 "server crashes loading classifiers"**

  "I turned on parallel save last week. But when I had to shutdown and restart, it wouldn't load the classifiers. I turned off all parallel stuff, but it still won't load. See attached log files."

  This bug was previously "major" importance, but development changed it to "critical". Mitch's investment in tag training basically goes down the drain as Mitch has to retrain the system.

- **TT-3124 "immediately after creating a new category, typing in the category name and hitting return does not add the tag to the selected message in the Explorer"**

  "However, opening the message in the Inspector and then doing the same thing works. But going back to the explorer still doesn't work. So it seems that there is something goofy in the explorer combobox."

  Bug changed from "major" to "critical". Having to restart Outlook to get a fully working / up-to-date Explorer view takes time and Mitch loses context and has to spend extra time recovering. This is a serious usability issue.

- **TT-3118 "In explorer, after deleting a tag from a message, keyboard focus should return to the main explorer window so that a down arrow key will move the focus to the next message"**

  "Right now, if I am in the Explorer and I delete a tag, the keyboard focus moves to the next tag on that message (assuming there were multiple tags). So then if I hit the down-arrow key, I get the drop-down menu from that tag. That is not what I want. i want to go on to the next message in the inbox. Another use case is where I delete a tag and then hit the control-R key to reply. Right now, nothing happens, because keyboard focus is on some part of the TT menubar and not on the message."

  Changed from "minor" to "major". This irritates Mitch, taking away attention from work to be done, i.e. has attention cost that adds up to something significant quickly as Mitch gets a lot of email.

Product Planning

Product Planning of "professor" workflows. A preliminary product planning meeting was held. Although Mitch was central to the meeting, as the workflows were central to this persona, there was what might be called a "utility gap".

The development team could use Mitch to discuss Mitch's motivations and time-sensitive nature. The development team could use Mitch to sketch out a basic idea of what Mitch was doing. But development could not use Mitch to look at specific instances of professor workflows, i.e. "everything to do with attending ICML 2015".

Without more specific knowledge, development didn't make good traction on writing user stories to drive feature/UI requirements. Hence in the product planning scenario, Mitch provided value, but other knowledge and UCD tools such as user story mapping are still needed.

Additional Aspects of Development Usage
The relatively long, mostly text, persona foundation document didn't prove to be an issue in actual usage. The general perspective of development was that "more information about the users is a better problem than too little information".

Development was interested in figuring out where Mitch/personas fit well in all of the various development processes/functions involved in software development, not just bug triage and product planning. There was considerable curiosity for "where are personas not going to work?".

In some ways, introducing personas also opened the door for everyone on the development team to actively become more user-centric in their development processes/efforts.

Challenges Overcome
The main challenge we had to overcome was starting from a singular professor to build our persona. To broaden our persona, we interviewed additional professors and found relevant research that might apply to many people similar in information processing approach to our main subject. Finally, at the urging of ourselves and development, we removed a number of details which were too specific about the persona.

Additionally, we had to overcome sickness in the class and the different schedules of each member of the core persona team. It was (and still is) common for a team member to be missing from the core persona team meetings.

Bad/Unrealized Outcomes
Not a bad outcome per se, but a missing outcome was the fact that we could only build one persona. It would be have been interesting and educational to build a few personas. We believe it also would have been helpful to have 1-2 additional personas for development. Having Mitch is certainly a lot more helpful than not having Mitch, but we have yet to broaden the appeal of our intelligent email assistant.

Also not a bad outcome, but Mitch can't do everything. In product planning, it was clear that we needed specific knowledge about Mitch that we didn't have at hand. We also needed our familiar tools of user stories to map out features and interface requirements. Maybe we could have used Mitch to sketch out a semi-fictional user scenario, but as there are many nuances with workflows, it was decided to get the real information.

Good Outcomes

Mitch is a very authentic, highly useful persona. And he is really the "good outcome", i.e. a good tool that development can use to help solve specific product and process problems.

We found that for bug triage, development actually knew Mitch. Their long exposure through the development of Mitch really ended up working well. So with little outside involvement, development was able to triage all the relevant open bugs in JIRA.

It was easy to tell that there was now higher quality thinking about the user that hadn't been present before. It was also clear that this thinking about the primary persona was now driving software development's decisions much more than before: 16 bugs whose importance to Mitch wasn't previously well understood had their priority increased.

We also found that opening the door to personas seemed to be addressing an unmet need for some development team members to become more user-centric in their development processes/efforts.

Final Thoughts

Overall, we are happy that we built Mitch. His utility was validated by development before adulthood and development has already found Mitch useful during adulthood. We had to make some decisions along the way. Fortunately, the decisions turned out well, especially the decision to involve development in building the persona from the very start.

Although it is still early, personas are off to a good start. In terms of time longer term cost vs. benefit, I think the jury is still out. The bug triage was a good sign that the investment made in building Mitch would end up being fruitful and worthwhile. Product planning was a mixed bag. Mitch was useful, but we also needed additional information and other tools. It will take time to fully understand where the use of Mitch fits well and where Mitch adds the most benefit.

Event Log

Date/Time	Setting	Event Name	Outcomes	Materials Involved
0217/5:15p	Birth meeting	Development thought Mitch was too specific.	· Core persona team made Mitch less singular.	Foundation document.
0226/11:15a	Bug meeting	JIRA bugs were triaged for priority.	· Development led the use of Mitch which was a pleasant surprise. · 16 bugs were increased in priority due to Mitch's needs. · 1 bug was decreased in priority due to unimportance to Mitch. · 3 bugs were re-categorized based on importance to Mitch.	Foundation document. JIRA.
0302/8:20p	Product planning meeting	Workflow features were discussed and initial storyboarding was performed.	· Mitch was helpful understanding motivations and time and investment centered activity strategies. · Mitch didn't offer all the specific information we needed to write authentic user stories. · Mitch doesn't do everything, i.e. other UCD tools, such as user story mapping, are still important and useful.	Foundation document.