How the use of Personas in Agile may Allow Game Developers to Construct more Focused and Prioritised User Stories

COMP150 - Agile Essay

1507290

May 8, 2016

The Agile philosophy does not directly address the issue of usability in software. The user's experience is especially important in the field of games. This essay will explore how the use of personas, a user-centred design tool, has the potential to help agile game development teams construct more effectively focused and prioritised user stories, ultimately resulting in providing players with a more enjoyable and engaging experience.

1 Introduction

The Agile methodology itself does not directly address usability. The Agile Manifesto [1] is focused on the development process from the team's perspective. Although the Agile Manifesto refers to "customer collaboration over contract negotiation", this is likely referring to the product owner, rather than the consumers of the product.

Despite some conflicts in principles, interest in incorporating user-centred design (UCD) methods into Agile is growing [2]. One such UCD tool which has been integrated into some agile methods is the use of personas [3]. Personas are a set of fictional characters created to be archetypal of the different groups of intended users. Their primary purpose is to solidify the concept of the end user to help designers and developers more effectively understand the product's intended users [4].

Games are solely about the player's experience of the game, so an understanding of the user is especially important. This essay will explore how the use of personas in an agile games development process could help create a game that provides the player with a better experience, as well as helping the team construct and prioritise user stories more effectively.

2 The Benefits of Using Personas

Personas can help designers, developers and testers more effectively capture the needs of their intended product users, as well as being useful as a tool to aid communication [5]. Personas usually contain information about the user such as name, age, occupation, a photo, and the goals of that persona. In agile, personas are usually placed in the team's working environment [6].

The use of personas can help developers and designers more carefully consider how users would use the product and what their goals are, as they are concretely defined rather than abstract sections of the target market. Furthermore, designing a product for personas is likely to result in a product that caters to the needs of the intended users, as not only do they solidify the concept of the user, but also are based on research and empirical data collected about the intended users [4]. This also means that the team has a shared understanding of who they are designing for, instead of working from

personal assumptions [7]. Understanding how the user will experience the product is especially important in a field such as games, which must provide the player with an enjoyable and engaging experience.

3 Integrating Personas into Agile

Some elements of Personas conflict with elements of the Agile manifesto, whilst some parts of their philosophies are similar [2, 8]. The use of personas from a UCD perspective usually involves researching the users and creating the personas before any development begins, whereas Agile discourages this practice [8]. In order to make personas compatible with Agile, they could be made to be iterative, as is demonstrated with 'Extreme Personas' [9]. This way, the persona's profile would be reviewed and developed alongside the project as requirements change and new information about the potential players surface. The personas could be reviewed at the end of each sprint, alongside user stories.

Furthermore, personas could inform the priority of user stories, by using their goals and personalities as a guide [10]: stories that positively affect the most personas could be prioritised more highly. This could ensure that the team is making more effective use of its time by working on user stories that are going to affect the players the most.

4 How can Personas be Used in Game Development?

It is difficult to focus user stories on users in game development; all of the users are 'players'. Using personas could provide a way to target the user stories at specific types of player. Another approach to tying personas to user stories is to create persona driven user stories [11]; that is, user stories

that specifically refer to a single persona. Perhaps this could be extended by adding versions of the user story from the point of view of each individual persona to the main user story. This way, it will make it clear how a given feature will affect different types of players' experiences of the game. The goals of the persona will be of particular importance; they define the player's motivations for playing the game and what they want to achieve.



Figure 1: An example of a Persona for game development

In addition to specifying particular goals, the persona's motivations and characteristics could be supplemented by the inclusion of information about the player's gamer type according to taxonomies such as Brainhex [12], the Bartle test[13], or Yee's taxonomy[14]. To make the most effective use of this information, the team members will need to become familiar with the taxonomy used. For the general case, Brainhex is likely to be the most useful for giving a general overview of the player's characteristics, as the other two are targeted at player behaviour in online games. An example of

the information a game development persona could include is illustrated in Figure 1.

5 Conclusion

With certain alterations and additions, personas could be an effective tool to use in an agile games development process, at the expense of additional time spent researching the users and constructing the personas. They have the potential to allow the team to better prioritise their user stories, resulting in a more effective use of development time. Understanding between different departments may also be enhanced by using the personas as a communication tool for raising and addressing issues. Providing they are based on empirical data about the potential players, the use of personas will ensure that the team has a shared perception of who they are producing the game for and allow them to produce a game that better suits their intended players.

References

- [1] K. Beck, M. Beedle, A. van Bennekum, A. Cockburn, W. Cunningham, M. Fowler, J. Grenning, J. Highsmith, A. Hunt, R. Jeffries, J. Kern, B. Marick, R. C. Martin, S. Mellor, K. Schwaber, J. Sutherland, and D. Thomas, "Manifesto for Agile Software Development," [Online]. Available: http://www.agilemanifesto.org/, 2001, [Accessed: 08-May-2015].
- [2] J. Haikara, "Usability in agile software development: Extending the interaction design process with personas approach," in Agile Processes in Software Engineering and Extreme Programming: 8th International

- Conference, XP 2007, June 18-22, 2007. Proceedings, Como, Italy, 2007, pp. 153–156.
- [3] L. Caballero, A. M. Moreno, and A. Seffah, "Persona as a Tool to Involving Human in Agile Methods: Contributions from HCI and Marketing," in *Human-Centered Software Engineering: 5th IFIP WG* 13.2 International Conference, HCSE 2014, September 16-18, 2014. Proceedings, Paderborn, Germany, 2014, pp. 283–290.
- [4] A. Cooper, R. Reimann, and D. Cronin, *About Face 3. The essentials of Interaction Design*. Indianapolis, IN: Wiley Publishing, 2007.
- [5] J. Choma, L. A. M. Zaina, and D. Beraldo, "Communication of design decisions and usability issues: A protocol based on personas and nielsen's heuristics," in *Human-Computer Interaction: Design and Evaluation: 17th International Conference, HCI International 2015, August 2-7, 2015, Proceedings, Part I*, Los Angeles, CA, 2015, pp. 163–174.
- [6] Agile Alliance, "Agile Alliance Personas," [Online]. Available: https://www.agilealliance.org/glossary/personas/, 2015, [Accessed: 08-May-2015].
- [7] M. Singh, "U-scrum: An agile methodology for promoting usability," in Agile, 2008. AGILE '08. Conference, Toronto, Canada, 2008, pp. 555–560.
- [8] S. Chamberlain, H. Sharp, and N. Maiden, "Towards a framework for integrating agile development and user-centred design," in Extreme Programming and Agile Processes in Software Engineering: 7th International Conference, XP 2006, June 17-22, 2006. Proceedings, Oulu, Finland, 2006, pp. 143–153.

- [9] P. Wolkerstorfer, M. Tscheligi, R. Sefelin, H. Milchrahm, Z. Hussain, M. Lechner, and S. Shahzad, "Probing an agile usability process," in CHI '08 Extended Abstracts on Human Factors in Computing Systems, Florence, Italy, 2008, pp. 2151–2158.
- [10] G. Miller and L. Williams, Personas: Moving beyond role-based requirements engineering. Microsoft and North Carolina State University, 2006.
- [11] D. Winter, E. Holt, and J. Thomaschewski, "Persona driven agile development. build up a vision with personas, sketches and persona driven user stories," in *Proceedings of the 7th Conference on Information Systems and Technologies (CISTI)*, Madrid, Spain, 2012.
- [12] L. E. Nacke, C. Bateman, and R. L. Mandryk, "Brainhex: Preliminary results from a neurobiological gamer typology survey." in *Proceedings* of the ICEC 2011 10th International Conference, Vancouver, Canada, 2011, pp. 288–293.
- [13] R. Bartle, "Hearts, clubs, diamonds, spades: Players who suit MUDs," Journal of MUD research, vol. 1, no. 1, p. 19, 1996.
- [14] N. Yee, N. Ducheneaut, and L. Nelson, "Online gaming motivations scale: Development and validation," in *Proceedings of the SIGCHI* Conference on Human Factors in Computing Systems, Austin, Texas, TX USA, 2012, pp. 2803–2806.