Value-led Personas: A Methodology to Promote Sustainable User-centered Design?

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ABSTRACT

This paper explores how values can be the focus in user-centered design through the use of value-led personas. Its starting point was exploring value-driven alternative models for micro-business based on the principles of open source. The research documented in this paper is a participatory design process with two emergent micro-businesses as co-researchers. The stakeholders of each micro-business were presented as value-led personas, representing a deep understanding of their values and beliefs gained from ethnographic data. In this project, the use of value-led personas effectively communicated the core values of each micro-business and enabled participants to visualize how stakeholders would interact with the organization. Value-led personas thus have the potential to be an effective communication technique in user-centered design that can lead to purposeful action.

Author Keywords

Values; personas; user-centered design; action research; micro-business; stakeholders; sustainability.

ACM Classification Keywords

H.5.2. Information interfaces and presentation (e.g., HCI): User-centered design.

INTRODUCTION

This paper documents how the concept of value-led personas was developed through exploring value-driven alternative models for micro-business. In particular, Merges linked the open source movement to the original medieval guilds to create the concept of the 'virtual guild' [14]. Open source has the potential to promote intrinsic values [1], which Chilton et al. [4] claim is key to achieving longer-term sustainability.

The research project worked directly with the founders of two emergent micro-businesses as co-researchers from June to August 2013, Shrimping It (www.shrimping.it) and The Northern School of Permaculture (www.northernschool.info). Both founders were facing the dilemma of how to move forward from an idea, a growing community and gaining some income to creating a sustainable micro-business. The virtual guild model was the starting point for investigating this problem.

Hayes links user-centered design to action research, where both follow a cyclical process of action-reflection [12], thus a user-centered design approach thus showed promise for working with these organizations.

FINDING THE VALUES DRIVING PARTNER ORGANIZATIONS

The techniques of rapid ethnography [15] were used to capture useful ethnographic data during June and July 2013. The ethnographic data confirmed the importance of values to partner organizations, thus values needed to be key to the design process. Value Sensitive Design (VSD), introduced by Friedman in 1996 is potentially a useful technique, calling for the design of technology to take values into account [10]. Later writers challenged the initial basis of VSD on a set of universal values, contending that values can be developed from previous work or developed during the research project itself, moving closer to ethnography, action research and participatory design [2].

This project took the approach of developing values during the research, initially using existing values frameworks to develop a set of values from ethnographic data, then establishing additional values within a design workshop with each micro-business. It thus adopted a more participatory design approach by involving participants 'more actively in the design process as codesigners' [11].

NVivo software was used to categorize the ethnographic data, using the existing values frameworks of basic values [18], values associated with intrinsic motivations [17], values that are relevant in a community development context [13] and finally the concept of flow [6]. Table 1 below shows the values that appeared most often during the analysis for each organization, which were then the basis for creating value-led personas.

Values framework	Shrimping It	Northern School of Permaculture
Basic Values	Achievement Benevolence	Achievement Universalism
Motivations	Competence	Autonomy Relatedness
Community Development	Honesty Transparency	Honesty Repatriation
Flow	Not relevant	Not relevant

Table 1: Initial values for each organization established from ethnographic data

CREATING THE TECHNIQUE OF VALUE-LED PERSONAS

Considering potential techniques for a values-driven workshop started with scenarios, where descriptions of activities inform the design process [3]. Considering how values could drive scenarios led to personas, introduced by Cooper as fictional individuals who are described in detail to facilitate 'goal-directed design' [5]. Personas were developed further by Nielsen in the context of engaging users in user focused design, where the 'lifeworld' of the user becomes key [16], thus linking with values. This project went one step further to create specifically value-led personas, which drew on the concept of extreme characters [7], accepting that representations of users in user-centered design can become stereotyped [19].

Using Value-led Personas in Design Workshops

Figure 1: Shrimping It creating the Kurious Kids persona, also showing some of the other personas.

The value-led personas were thus presented in the very simple form of a cartoon "smiley" and a quotation, however behind this simplicity was the foundation of deeply held

values from partner organizations. This method also allows for appropriation [8], enabling users to adapt the personas.

The author facilitated both workshops for consistency, creating a number of initial personas expressing the values held by stakeholders of each participating organization, and (for contrast) one that did not represent these values. Tables 2 and 3 below shows the initial personas created before the workshop. The workshop sessions were documented by the author taking extensive notes supplemented by photographs while the session was in progress.

OUTCOMES OF THE DESIGN WORKSHOPS

Shrimping It

The workshop was held with Cefn Hoile, founder of Shrimping It. He agreed with the initial values offered then added others including, clarity, open communication, community involvement, enthusiasm, stimulation, humility, openness, self-direction and quality. Cefn also agreed with the initial personas, then added further personas including Open Oscar, Foreign Johnny, Geek Daddy and Kurious Kids.

Value	Persona	Quotation
Achievement	Rheostat Rick	"I made it myself"
Benevolence	Harassed John	"My pupils have learned so much"
Competence	Breadboard Bill	"I really understand how it works now"
Honesty	Budget Jane	"Shrimping It make the deal so clear - a pleasure to deal with"
(does not represent Shrimping It's values)	Stickler Steve	"Does it have a 12 month guarantee?

Table 2: Initial personas for Shrimping It

Cefn then related the guild model to their everyday work, giving the example of a facilitator who effectively became an apprentice after approaching him and helping out with some workshops. Cefn thought that members of the guild can create designs that the micro-business can sell, so the IP generated by the guild benefits the business which is taking on the role of servicing the guild. He observed that openness has created a market for them with the community creating the capacity for a business at its core, taking a 'small share of a big opportunity', with the business evolving organically with no outward investment needed. The guild model could enable members to make the transition from a hobby to a business. The discussion then moved onto intellectual property, Shrimping It could trademark its name to protect its core IP and ensure that anything done under the Shrimping It name is appropriate.

In this way, copyright can be used to defend freedom. Cefn put the model into practice there and then, planning how it could be applied at the Manchester mini-Maker Faire that August.

Figure 2: Shrimping It presenting their guild model at Manchester's mini-Maker Faire, August 2013.

The Northern School of Permaculture
The workshop was held with Angus and Krysia Soutar, co-founders of the Northern School of Permaculture. They agreed with the initial values offered then added others including accountability, achievement, balance, commitment, community involvement, competence, cooperation, creativity, environmental awareness, ethics, excellence, fairness, health, honesty, humor, independence, integrity, making a difference, personal growth, respect, responsibility, self-confidence, self-discipline, stimulation, self-direction, trust, vision and wisdom. They also agreed with the initial personas, then added many more personas which were not named but expressed values, feelings and beliefs held by stakeholders who wished to make a difference to how society relates to the environment.

Value	Persona	Quotation
Achievement	Diploma Diane	"I did it, finally got my permaculture diploma"
Universalism	Worldly William	"I want to create a society where people live in harmony with nature"
Relatedness	Friendly Freda	"I quickly realised this course was about the relationships you make"
Honesty	Permaculture Petra	"I like the School's no-nonsense approach".

Repatriation	Caring Claire	"We need to make the planet healthy again"
(does not represent the Northern School's values)	Resistant Robert	"Who is accrediting this course, anyway?"

Table 3: Initial Personas for the Northern School of Permaculture

The Northern School welcomed the guild model, elaborating it to show all their relationships with stakeholders, the roles they would play in relation to the guild and where the money would go. The workshop helped them clarify the wider context of the international permaculture movement as a 'guild of institutes'.

The School concluded that there are 'no alternatives to doing this guild', as 'capitalism has changed' following the financial crises of 2008. In terms of the values of the School and Institute, they 'can't see any other way of doing it' in the development of a sustainable business, first develop the team and relationships, which then leads to the guild, then the micro-business is founded to undertake the work of the guild.

The discussion then went on to consider who would get paid, concluding that the strength of the guild model is that it offers a mechanism to grow a micro-business with 'no investors other than those who are working in it' and hence no external debt.
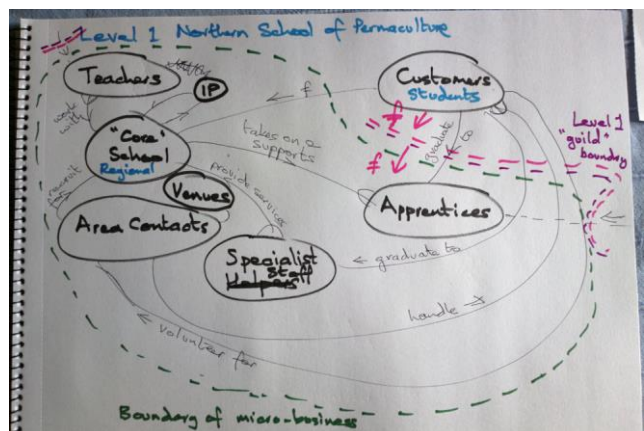

Figure 3: Level 1 of the Northern School guild model.

CONCLUSIONS AND FURTHER WORK
The concept of value-led personas was developed during initial research in 2013 with two emergent micro-businesses as co-researchers. Inspired by their commitment to values and longer-term sustainability, the technique of value-led personas proved to be a powerful tool for driving the design process, enabling participants to visualize how stakeholders would interact with their organization in the scenario of it adopting a guild model. In both cases, the workshop

continued for over an hour longer than the two hours originally allocated, becoming more intense and focusing on immediate plans for implementation. Participants commented that the process 'helped me think' and that 'the assets really drove thinking'.

The concept of value-led personas could be developed further, in particular the finding that their power lies in simplicity together with a foundation in values could be tested by creating more detailed value-led personas, aligning more with how personas are presented in the literature (e.g. [9]). A second workshop will be held in summer 2014 using more detailed value-led personas.

REFERENCES
1. Bitzer J., Schrettl W. and Schröder, P. J. H. Intrinsic motivation in open source software development. *Journal of Comparative Economics 35*, (2007), 160-169.

2. Borning, A. and Muller, M. Next steps for value sensitive design. *Proc. CHI '12*, 1125-1134.

3. Carroll, J. M. *Making use: Scenario-based design of human-computer interactions*. MIT Press, USA, 2000.

4. Chilton, P., Crompton, T., Kasser, T., Maio, G. and Nolan, A. *Communicating bigger-than-self problems to extrinsically-oriented audiences*. WWF-UK, Godalming, UK, 2012.

5. Cooper, A. *The inmates are running the asylum*. Morgan Kaufmann, Indianapolis, 2000.

6. Csikszentmihalyi, M. and Nakamura, J. The Concept of Flow. In *Handbook of Positive Psychology*. Oxford University Press, New York, 2002, 89-105.

7. Djajadiningrat, J. P., Gaver, W. W. and Fres, J. W. Interaction relabelling and extreme characters: methods for exploring aesthetic interactions. *Proc. DIS '00*, 66-71.

8. Dourish, P. The appropriation of interactive technologies: Some lessons from placeless documents. *Computer Supported Cooperative Work (CSCW) 12*, 4 (2003), 465-490.

9. Floyd, I. R., Jones, M. C. and Twidale, M. B. Resolving incommensurable debates: a preliminary identification of persona kinds, attributes, and characteristics. *Artifact 2*, 1 (2008), 12-26.

10. Friedman, B. Value-sensitive design. *Interactions 3*, 6 (1996), 16-23.

11. Fuchs, C. and Obrist, M. HCI and Society: Towards a Typology of Universal Design Principles. *International Journal of Human-Computer Interaction 26*, 6 (2010), 638-656.

12. Hayes, G. R. The relationship of action research to human-computer interaction. *ACM Transactions on Computer-Human Interaction 18*, 3 (2011), 1-20.

13. Hoggett, P., Mayo, M. and Miller, C. *The Dilemmas of Development Work*. Policy Press, Bristol, 2009.

14. Merges, R. *From Medieval Guilds to Open Source Software: Informal Norms, Appropriability Institutions, and Innovation*. http://ssrn.com/abstract=661543.

15. Millen, D. Rapid Ethnography: Time Deepening Strategies for HCI Field Research. *Proc. DIS '00*, 280-286.

16. Nielsen, L. *Personas - User Focused Design*. Springer, London, 2011.

17. Ryan, R. and Deci, E. Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology 25*, 1 (2000), 54-67.

18. Schwartz, S. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology 25* (1992), 1-65.

19. Turner, P. and Turner, S. Is stereotyping inevitable when designing with personas? *Design Studies 32*, 1, (2011), 30-44.