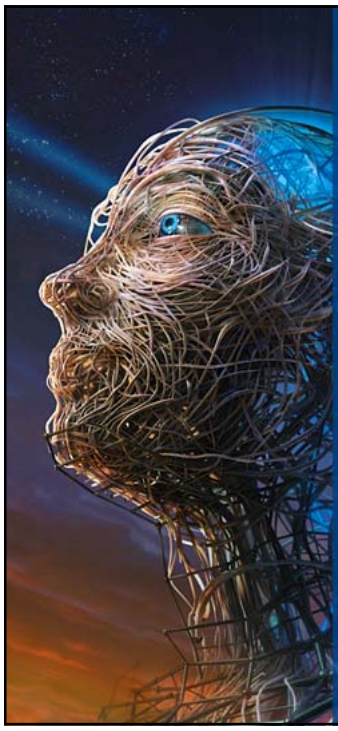

Interaction Designers and Agile Development: A Partnership

Lynn Miller
Manager, User Experience Team
UPA, June 14, 2006

Attendees at this session will learn:

- The interaction designer's role in Agile.
- How to work effectively with Agile teams.

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What happened to Alias?

This presentation describes work that was done by the Alias User Experience team, based in Toronto, Canada.

After this presentation was accepted for UPA 2006, Alias was acquired by Autodesk, Inc. of San Rafael, California.

For that reason, the company name listed in your program will not match what you see on this screen.

Sorry for any confusion.

Alias

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Motivation

Environment:

- Agile development was introduced to Alias in 2002
- Training talked about 'customers' but not UCD
- Needed to connect Agile and UCD together

Experience:

- Three Agile software products released (2002-2006)
- Attending and presenting at Agile 2005
- Various publications on Agile and customers

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Who are you?

Raise your hand if you:

- Don't know what Agile development is?
- Are considering adopting Agile practices?
- Have worked on an Agile development project?
- Have been formally trained in Agile practices?
- Have had problems dealing with an Agile team?
- Don't believe Agile and UCD can work together?

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Agenda

Background:

- What is Agile development?
- What is an Agile customer?
- What problems do Agile teams have with customers?
- How does this relate to interaction design?

Interaction design and Agile:

- Six best practices
- How to achieve them

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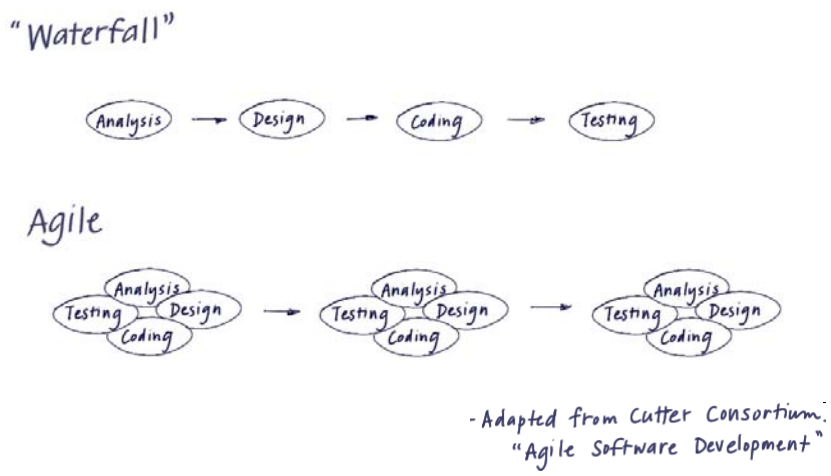
Agile development



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Manifesto for Agile Software Development

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools
Working software over comprehensive documentation
Customer collaboration over contract negotiation
Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

Kent Beck
Mike Beedle
Arie van Bennekum
Alistair Cockburn
Ward Cunningham
Martin Fowler
James Grenning
Jim Highsmith
Andrew Hunt
Ron Jeffries
Jon Kern
Brian Marick
Robert C. Martin
Steve Mellor
Ken Schwaber
Jeff Sutherland
Dave Thomas

http://www.agilemanifesto.org/

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Who is the customer?

Wikipedia: Agile software development customers:

"Customers are the people who define the product. They may be product managers, business analysts, or actual customers."

Agile customer ≠ UCD customer

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Duties of the Agile customer

1. Understands and accepts Agile development concepts
2. On-site, full-time member of the development team
3. Is the end-user voice on the development team
4. Helps prioritize and plan cycles and releases
5. Adjusts the plan, as required, during development
6. Verifies (accepts) user stories

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Problems with Agile customers

Barriers to effective customer interaction:

- Clueless customer
- Where/who is the customer?
- Multiple customers with disparate opinions
- “Techno-babble” from developers
- Developers don’t know how to act with customer
- Simple misunderstandings (like terminology)

From the Agile 2005 Conference Workshop:
Stop Interacting With The Customer Until You Know The Safety Rules

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Solution to the customer problem

Interaction designers should fill the customer role:

- They already know how to act as end-user representatives.
- They can synthesis the information from multiple users.
- They have the skills and knowledge to prioritize.
- They have the tools to verify workflows.
- Bonus: They can also design the interactive interface.

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Where we are so far

First section:

- Agile development values team interaction
- The Agile customer is a role on the team
- There are problems using PMs or end-users in this role
- Interaction designers are well-suited to fill the role

Next: Interaction design and Agile:

- Six best practices
- How to achieve them

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1. Understands & accepts Agile concepts

This means:

- Understanding the Agile philosophy
- Modifying your work to be more Agile
- Knowing the terminology

Benefits:

- Understanding your contribution
- Improving your own processes
- Able to speak to the rest of the team

Cycles
Iterations
Releases
Scrum
FP's
User story
Acceptance criteria

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1. Understands & accepts Agile concepts

Tips for success:

- Get trained on Agile practices
- Understand your team's specific Agile methods
- Align your working process with the Agile cycles
  - Working with cycles
  - Interaction with the team
  - Minimize documentation

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2. On-site, full-time member of the team

This means:

- Dedicated to the project
- Co-located
- Daily face-to-face contact

Benefits:

- Maximum understanding
- Minimal documentation
- Prevents implementation drift

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2. On-site, full-time member of the team

Tips for success:

- Understand the significant time investment
- Maximize face-to-face contact
- Work with the team: collaboration not declaration

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3. Be the end-user voice on the team

This means:

- Working directly with end-users
- Understanding their needs and how they work
- Bringing this understanding back to the team
- Representing the end-user

Benefits:

- Deep understanding of the end-user
- Single end-user voice for the rest of the team

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3. Be the end-user voice on the team

Tips for success:

- Make the end user relevant to the team
- Show the team what you are doing
- Keep up to date on the software and know how to use it

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4. Helps prioritize & plan cycles/releases

This means:

- Not doing product manager's job
- Being active in the planning process
- Bringing the end-user's voice to the table
- Working with product and development managers

Benefits:

- Achievable plan that serves business and end-user needs
- Make sure each release demonstrates a workflow
- Can spread out tricky design work across cycles

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4. Helps prioritize & plan cycles/releases

Tips for success:

- Flexible feature list: don't fill schedule with critical features
- Create user stories and break things up into small chunks
- Prioritize based on user tasks not individual features

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5. Adjust the plan, as required

This means:

- If you are Agile, the plan will change
- Embrace this - prepare for this - take advantage of this
- Changes are based on end-user feedback

Benefits:

- Fast response to changing needs
- Important missed aspects are addressed
- End-user feedback is actually listened to

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5. Adjust the plan, as required

Tips for success:

- Changes must be agreed on by all stakeholders
- Something added means something must be removed
- Make adjustments quickly

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6. **Verifies (accepts) user stories**

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6. Verify (accept) user stories

This means:

- Responsibility for usability acceptance criteria
- Verify that designs are complete and correct
- Do this for each cycle

Benefits:

- Control the meaning of the word 'done'
- Usability testing with real end-users
- Validation before the product ships

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6. Verify (accept) user stories

Tips for success:

- Make sure you are responsible for usability acceptance
- Upfront agreement of an addition vs a bug
- Verify while the code is still warm
- Feed results back into Agile planning process

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Wrap-up

Interaction designers and Agile development:

- Agile customer is a role on the team
- Interaction designer are well suited for this role
- Customer role empowers the interaction designer
- Six best practices to get the most out of Agile

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Thank you

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References

Cohn, M., “Want Better Software? Seven Things Project Customers Can Do”, *Better Software Magazine,* March, 2004.

Farell, C., Narang, R., Kapitan, S., Webber, H., "Towards an effective onsite customer practice", *Proceedings of the Third International Conference on Extreme Programming and Agile Processes in Software Engineering*, 2002, Alghero, Sardinia, Italy.

Miller, L., “Case Study of Customer Input for a Successful Product”, *Agile 2005 Conference Proceedings*, 2005, Denver, CO.

Sy, D., “Strategy and tactics for Agile design: a design case study”, *UPA 2005 Conference Proceedings*, 2005, Montréal, Québec, Canada.

van Deursen, A., “Customer Involvement in Extreme Programming”, *XP Universe 2001 Workshop Report*, 2001, Sardinia, Italy

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