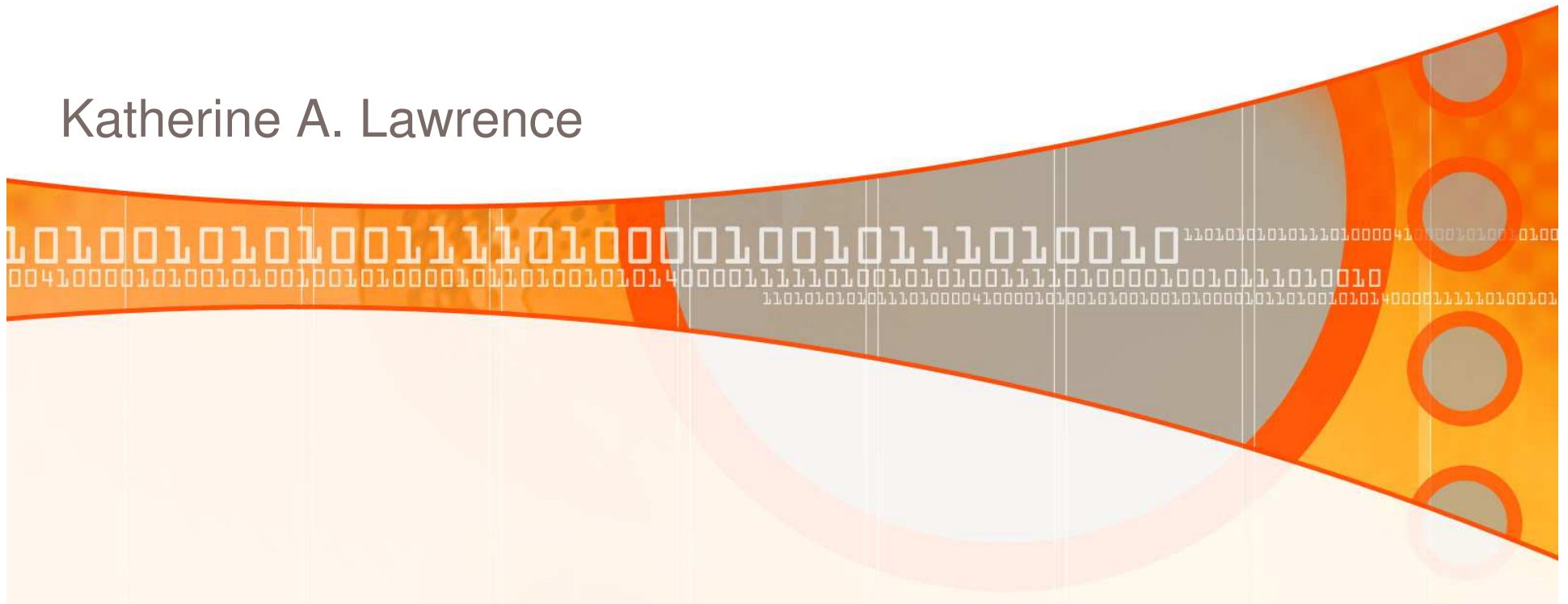


Putting It Together...Bit by Bit: Interpersonal Collaboration in Software Development

Katherine A. Lawrence



Outline of Presentation

- Background
- Collaboration in pairing
 - Likes and dislikes
 - Best practices
 - Pitfalls
- How we learn to collaborate
- Lessons learned

Background: Research Question

How do collaborators encourage each other to contribute to their joint work?

Pairing: Likes & Dislikes

- Different experience from solo programming
- Liked
 - Better use of time—focused and productive
 - Not stuck for as long
 - Extra pair of eyes (code review)
 - Cross-training and communication
- Disliked
 - Intense and exhausting
 - Status differences
 - No time to explore on own
 - Difficult partners

Best Practices: The Big Picture

- Supplying
- Gathering
- Complying
- Optimizing
- Equalizing
- Refraining

Pitfalls: When Moves Don't Work

- Being insulted
- Feeling uncomfortable
- Working counterproductively
 - Ineffective use of time
 - Creating practical problems
 - Feeling personally constrained

Encouraging Moves

- **Supplying**

- “Thinking out loud”
- Offering opinions or ideas
- Providing knowledge

- **Gathering**

- Asking questions
- Accepting suggestions

- **Complying**

- Honoring agreed practices
- Considering future issues

- **Optimizing**

- Keeping focused and on task
- Paying attention to pace and timing
- Maintaining light, positive atmosphere

- **Equalizing**

- Sharing the keyboard
- Welcoming debate

- **Refraining**

- Knowing not to distract
- Giving the benefit of the doubt

Why Are Moves So Inconsistent?

- Different interpretations of the meaning
- Interpretation affects success
- We use bits and pieces of understanding about our work relationships to provide a context for our experience
 - Two sources:
 - Attentiveness → Pair's qualities
 - Socialization → Organizational culture

The Pair's Qualities

- Attentiveness to preferences, habits, aptitudes, and experience, in terms of...
 - Similarities
 - Differences
 - Vibes
- For example...
 - Task objectives and approach
 - Definitions of success
 - Thoughts about standard practices
 - Disputes
 - Dispositions and moods

Organizational Culture

- Make your partner look good
- Eliminate “towers of knowledge” through “social engineering”
- Make mistakes faster
- Overall effectiveness over individual efficiency
- Communication is a continuous rather than a scheduled event

Lessons Learned: Why Moves Work

- **Caring**

= a feeling of authentic interest in, regard for, or liking of a person or thing

- Positive → expanding resources

- **Linking**

= interdependence and connectedness inherent in a pair's work process

- Connections → creativity and well-being

Practical Implications

- Important to hire and cultivate people with these skills
- Consider other aspects of being a “professional”
- Offers diagnostics for collaboration success and failure
- Recognize the pitfalls of collaborative work
- Any others?