Working Collaboratively Intro

INTERSECT – Bootcamp

What's Ahead

- Aspects of Working Collaboratively
- Project Management
- Tools for Working Collaboratively
  - Collaborative Git
  - Issues and Pull Requests
  - Documentation
- Licensing
- Code Reviews and Pair Programming

Why Work Collaboratively?

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- Challenges

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  - Logistics
    - Location
    - Time zone
  - Decision-making
    - Standard practices
    - Designs
  - Communication and coordination
    - Who works on what
    - Status
  - Egos (personal factors)

The Egoless Programmer

- The benefits of collaborative construction are greatly affected by the egos, or humility, of the participants

  "…most of programming is an attempt to compensate for the strictly limited size of our skulls. The people who are best at programming are the people who realize how small their brains are. They are humble. The people who are worst at programming are the people who refuse to accept the fact that their brains aren't equal to the task. Their egos keep them from being great programmers. The more you learn to compensate for your small brain, the better a programmer you'll be. The more humble you are, the faster you'll improve."

  – Code Complete 2ed. pg. 821, summarizing a 1972 Turing Award lecture by Edsger Dijkstra

- Strive to become an egoless programmer

Social Aspects of Working Collaboratively

- Inclusivity
- Codes of conduct and their enforcement
- “Our” vs. “My” software
- Engaging with new contributors
- Group practices
  - Leadership
  - Decision-making style
    - Egalitarian vs. acknowledged leader
    - How much autonomy does an individual developer have?
  - Time commitments to the project

Socio-Technical Aspects of Working Collaboratively

- Remote Collaborations
  - Meeting scheduling
  - Need for more explicit communication
  - Feeling “part of the team”
    - Getting to know each other
- Modes of communication
  - Common terminology
  - Helping people at remote sites
- Understanding team expertise
  - Science
  - Data
  - Visualization
  - Computer system and language