

Master's Thesis Defense
For Paul D. Kudrle

Introduction

- HCI
- CSCW
- Groupware
- JPL/NASA
- MOS/GDS

CSCW - Groupware

- Research Area for thesis
- Why continue research for CSCW
- Expand boundaries

JPL/NASA

- MOS/GDS
- Costing and Defining Missions
- Comments, Changes, etc.
- Thesis covers issue faced at JPL along with Groupware and CSCW

Literature Survey

- What kind of research did I look for?
- What were the key papers I found?

E-Collaboration

- What is it
- What area does it include?
- Superset for the study of CSCW

Boundaries

- Use Boundaries
- Technical Boundaries
- Social Technical Gap

CSCW

- Computer Supported Cooperative Work (CSCW)
- Term Developed in the 1980s
- History goes back to English & Engelbart in late 1969

CSCW Defined

- Time Space Taxonomy

	Same-Time	Different-Time
Same Place	face-to-face	asynchronous
Different-Place	synchronous	asynchronous distributed

Groupware

- Type of software that falls under CSCW
- Defined in the 1980s
- Notable papers

Examples of Groupware

- E-mail - Message Boards - Newsgroups
- ((Add Graphic))

Examples of Groupware

- More Recently
- Xerox DocuShare
- Wikis, Google Spreadsheets
- EasyWinWin
- ((Add Graphic))

Why groupware fails?

- Disparity between who benefits
- Lack of insight
- Lack of support

Groupware Requirements

- Generic List
- Created by Mandiwalla and Olfman (1994)

Groupware Requirements

- Explain the Generic Requirements

Research Story

- Moving from e-mail to interactive bulletin board
- USC Football

Evaluation Methods

- Data logging
- Ethnography
- Questionnaires

Questionnaires

- Why was this chosen for the thesis?
- What are the benefits?

Thesis Problem Focus

- Use knowledge from CSCW to solve issue at JPL
- Technical and Social Problem
- History of previous tools
- Possible ways to solve the problem

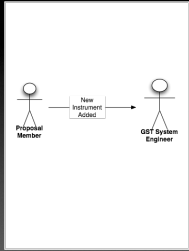
Proposal Work

- How proposals are done?
- Big Issues
 - Cost
 - Risk
- Multiple disciplines, in multiple organizations

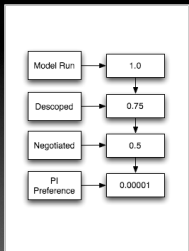
Previous Tool

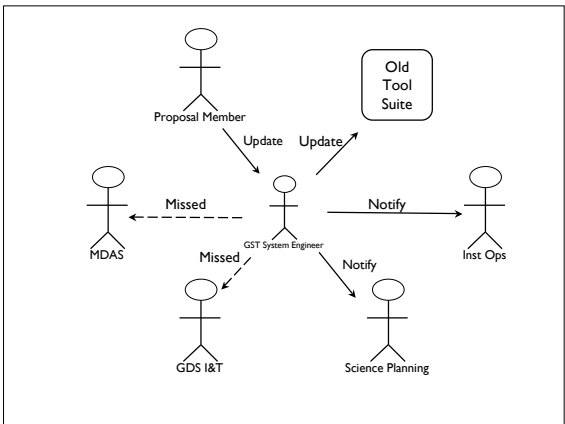
- Excel Based
- E-mail used for communication
- Group memory Lost

- Tracking the history of mission information (e.g. update to instrument list)
- Not everyone may get notified.
- Often have to set up meetings. No nice quick way



- What is the progression of staffing to the current levels.
- Arrive at division reviews and it is not clear what staffing levels were OK'd by CEL's and where the staffing came from.



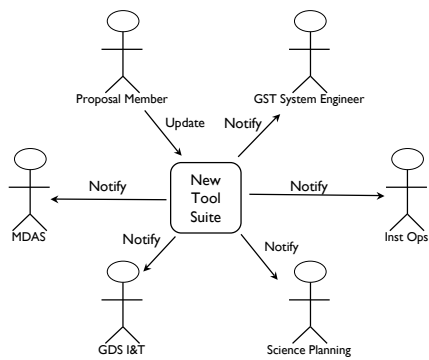


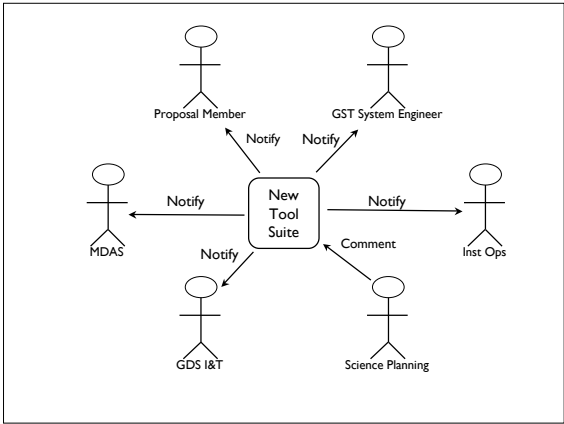
Other Issue

- Non-Ubiquitous Computing Environment
- Linux, Windows, OS X, Solaris
- Excel only Windows and Mac
- Losing support for Mac

Thesis Goal

- Solve the issues of Group Memory and Communication through Groupware
- Solve the social-technical issue by developing for open platform.





Methodology

- User Interviews Pre-development
- Development of Tool
- Demonstration
- Questionnaire

Methodology

- User Interviews
- Domain Experts
 - Have been completed over the past 2 years
 - Will be the users of the tool
 - Will be the responders for the questionnaire

Methodology

- Object Orientation
- Ruby on Rails
 - Pure Object Language - Ruby Language
 - MVC - ORM built in
 - Quicker Development
 - Framework

Methodology

- Other ways it could be solved
 - Lotus Notes
 - Microsoft Project
 - Google Spreadsheets
- Issues with all of these

Demonstration
