Building an IPRO Knowledge Management System

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Objectives

• Facilitate inter-team communication
• Provide continuity between semesters
• Provide a repository of all IPRO deliverables
• Assist in locating experts
Why Knowledge Management?

• **Current Scenario:** Only repository available now is in the form of binders.

• **Solution:** A mature KMS provides a searchable repository of all IPRO deliverables.
Why Knowledge Management?

• **Current Scenario:** Project knowledge is transferred by retaining students.

• **Solution:** A new team can access the repository and hence avoid costly re-work.
Why Knowledge Management?

• Current Scenario: Locating subject matter experts is a tedious exercise.

• Solution: KMS provides a mechanism to locate subject matter experts.
KMS Overview

Knowledge Management System

Knowledge Capture Process

Subject Matter Expert

Raw Data

Community

Nugget Repository
Organizational Culture

• Technology is not enough
• Compliance must be cultivated, not forced
• Incentives boost participation
• Some incentives cost nothing
What’s in a nugget?

- Title
- Abstract
- Creation narrative
- Categories
- Keywords
- Author
- Project
- Content
Nugget Examples

• Deliverable Nuggets
• “Quick Nuggets”
• Subject Matter Experts
Searching The System

- Content is searchable by several attributes:
  - Keyword
  - Category
  - Author
  - Project
Interconnectedness

- Each nugget is connected by 3 links
- Enhances the system’s search capability
- Helps connect related projects
Technology Prototype

• Implemented initial design on a real software platform
• Demonstrated the basic elements of a KMS
• Exposed problems with our current design
Team Prototype

• Met with teams
• Discussed knowledge management
• Simulated nugget capture process
• LEARNED FROM IT
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- IPRO 330: Home Monitoring of the Spinal Cord Injured Patient to Prevent Hospitalization Using Web-Based Technology and Other Applications
- IPRO 315: Hybrid Electric Bicycle
- IPRO 373: Homeland Security
Thank you for your time

• Any Questions?