Welcome!!!

Welcome to 15.980 and ESD Organizing for Innovative Product Development

- Hosted by Tom Allen (Chief Entertainer)
- and:
  - Alice Xu, (Chief Organizer)
- and
  - Bill Foley (Chief Engineer)
Readings & Lectures

- Do not be surprised if what I talk about in class has no relation to the readings.
  - Why be bored with the same stuff twice?
Work for Today

- **Stellar**
  - Any problems?
  - OK with those out in Videoland?

- **Grade Determination**
  - Paper/Project?
    - Group or Individual?
  - Quiz?
  - Any other ideas?
Two Points to Begin With

- Good internal *technical* communication is critical to the product development process.
  - Research shows that the best ideas consistently come from communication with colleagues within the organization.

- Two factors heavily determine the structure of internal communication networks.
  - Organizational structure.
  - Physical layout of the facility.
Two Tool Sets

Different Forms
Organizational Structure

Different Configurations
Physical Space

Management Tools
Maintaining Currency with New Technology

- Competitive threat can come from both inside and outside the industry that it will affect.
- To reduce this threat the organization must constantly import new knowledge from a broad array of potential sources.

  As we will see, this is not as easy as it sounds.
Knowledge Management

- Gaining Knowledge
  - Technology Transfer
    - Between Organizations
    - Within Organizations
  - Gatekeepers

- Disseminating Knowledge
  - Technical Communication
    - Organization Structure
    - Physical Structure of Facilities
What do we know about transferring knowledge?

- It is a 'people process'.
- Transferring documentation is, at best, an auxiliary process.
- People must be in direct contact and understand each other to transfer knowledge.
- The best 'package' for knowledge is the human mind.
- Moving people is the most effective way to move knowledge.
- This can imply either organizational or geographical movement.
- Organizational boundaries impose a serious barrier to the transfer of technology.
- This is due to the development of different organizational cultures.