the mere formulation of a problem is far more often essential than its solution

Albert Einstein
1879-1955, Nobel prize in physics
a relatively smart person

idea fair?

athletics mat sterilizer
2.009 Product engineering processes

Today

meetings
effective and efficient

finding information
informed ideation, teamwork
but first…
results from Monday’s mini quiz

list 4 individual creativity strategies

Kathleen Guerra
go to the idea fair
2.009 Product Engineering Processes

Mini-quiz

Put your name on the top of an index card

i) List a mental attitude/thought that blocks creativity?

ii) List two factors the correlate with unsuccessful product development teams.
Meetings (lab time +)
Why be good at them?

roughly 25% of your professional life will be spent in meetings
meetings will have a big influence on your level of professional success
Meetings
Why be good and efficient?

correlates with good performance

they are very expensive!
$55,000/year tuition
$50,000/year in opportunity costs
100 units/year, 12 unit course, 12 weeks gives ~$80/hour/person

team meeting costs ~$1600/hour (your time only)
~$12000/lab
including staff, mentors, facilities, etc.

be on time!
Running a meeting
resources/running meetings

plan and prepare

Ted finds himself in a situation which he is grossly unprepared for

clear roles, challenge ideas not individuals
set ground rules

plan for problem behaviors

dominators (assign them to be the scribe)
Running a meeting
resources/running meetings

Giving

Opinions

encourage constructive behaviors

summarize and seek closure
review the plan and disseminate (minutes, team site)
Constructive behaviors
optional tutorial: Thursday 7:00 PM, Pappalardo lab

how to be proactive and set your team up for success
(see home page)
coming up! 3-ideas milestone
during class, Monday September 25

See 3-ideas presentation link under the Project menu

3 ideas proposed by your section
idea/opportunity, feasibility, customer, market, expert/client

the team’s opportunity area chosen by panel of instructors/mentors
Finding information

*task at hand: 3-ideas, September 25*

your section proposes 3 feasible, viable ideas (opportunities), and identify contact resources
2.009 Information treasure hunt

**informed ideas**

Become more familiar with different information resources and search techniques

Find types of background information relevant to the project and early ideation

Obtain initial practice in task delegation and coordination

Help your section learn how to mobilize quickly and to delegate strategically (considering skills and different schedule constraints)

Instructions are linked on course home page
information
treasure hunt
problem statement

where will we find the answers?

how should we submit the answers?

when is this due?

who can I ask for help?
problem statement

you need good information to identify, choose and develop your product.

information on “superhero products or devices”

market information (trends, competition, customers, etc.)

but a lot of important information is in the “hidden” web, not available via Google.
Information is expensive!

ASME journal and conference proceedings
$19,000/year

IMechE journals
$37,000/year

2015 Lexus RX Hybrid
Information is expensive!

Web of Science®

$149,000/year

33’ seawind 1000
where will we find the answers?

2.009 library course page:
also under “resources/2.009 library page” on course website

http://libraries.mit.edu/2.009

you can use other resources, but teams using the library-recommended resources will score higher

you will may need to visit
how should we submit the answers?

create one answer sheet per section in MS word or pdf
include your section name on the answer sheet
answer the question
citations are required, including the source of answers
guidelines are in your instruction packet, and are linked to the home page

email answers to Nicholas
(nalbaugh@mit.edu or 2009library@mit.edu)
when is this due?

Thursday (Sept. 14) at 12 noon
who can I ask for help?

ALL
NICHOLAS
who can I ask for help?

librarians in class today
ask us! (librarians via email) http://libraries.mit.edu/ask

staff at any MIT Library

Nick Albaugh
cnda1979@mit.edu, Barker Library (today, normally Dewey)

Phoebe Ayers
psayers@mit.edu, Barker Library
2.009 Information treasure hunt

Getting started

Make sure you are with your lab section

Distribute instruction packets
All instructions are also on the course website, except the questions

Read the instructions

Delegate tasks and decide how you will coordinate
Mailing lists are active: see information/mailing lists
Team slack site available

Take advantage of available help!