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

Rachel Reed
you can make anything fit the theme if you try hard enough
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 that correlate with unsuccessful product development teams.
at last! **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!
$40,000/year tuition at MIT
$50,000/year in opportunity costs
100 units/year, 12 unit course, 12 weeks gives ~$75/hour/person

team meeting costs ~$1900/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
tutorial: Thursday 6:30 PM, Pappalardo lab

how to be proactive and set your team up for success
(see home page after class)
Portfolios

tutorial: Thursday 7:15-8:00 PM, room 3-370

might be handy for the career fair!
(see home page after class)
coming up! 3-ideas milestone
during class, Monday September 28

See 3-ideas presentation link under the Project menu

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

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

portrait orientation

supporting data on back
Finding information

Task at hand: 3-ideas, September 28

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
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 “magical” 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

2015 Lexus RX Hybrid

IMEchE journals
$37,000/ year
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/finding information 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 probably 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

e-mail answers to Angie
(locknar@mit.edu or 2009library@mit.edu)
when is this due?

Thursday (Sept. 17) at 12 noon
who can I ask for help?

Angie Locknar
who can I ask for help?

librarians in class today

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

Angie Locknar

staff at any MIT Library

Angie Locknar
locknar@mit.edu, x3-9320, Barker Library
2.009 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 site is active

Take advantage of available help!