

# Project Management 101

Kelly Lyons  
Faculty of Information  
University of Toronto

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UNIVERSITY OF TORONTO  
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## Agenda

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- About me, projects, and the iSchool
- What is a project
- What is project management
- Projects in organizations
- Project tools
- Management and Leadership in Projects
- Project management careers
- Recap
- Questions

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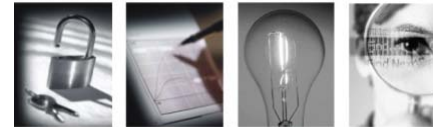
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# About Me: 1994 to 2007



**IBM Centers for Advanced Studies**

**CASCON** (2008)



**MEETING MINDS**

**Information Management**  
software

**TPC** Transaction Processing  
Performance Council

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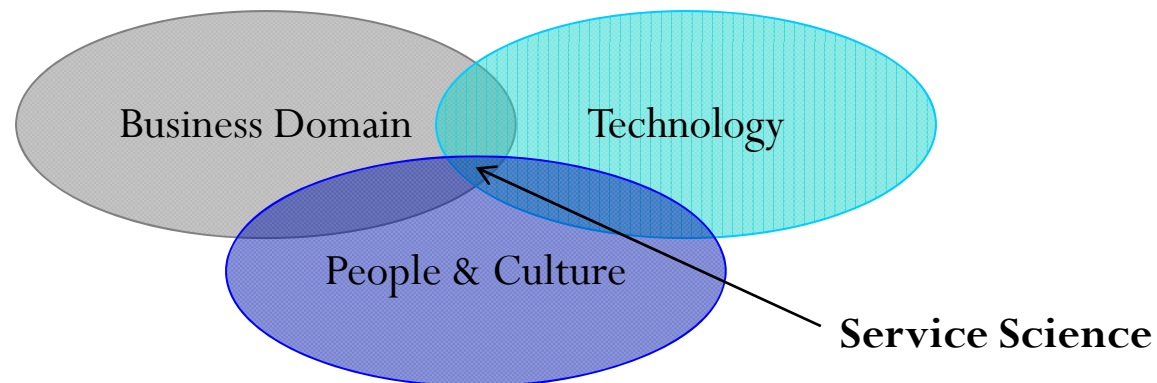
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# About Me: 2008 to Present



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INF1343: Introduction to Data Modeling and DB Design (2009, 2010)

INF2306: Introduction to Service Science (2008, 2009)

INF2040: Project Management (2008, 2010)

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# What is a Project?

- A Project:
  - Is a finite endeavour (with specific start and end dates)
  - Creates something unique where that something brings value or beneficial change
- Requires the adoption of a specific management philosophy
- Requires distinct technical skills

From, Wikipedia: [http://en.wikipedia.org/wiki/Project\\_management](http://en.wikipedia.org/wiki/Project_management)

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# Example Projects

- Execute a TPC-H benchmark running DB2 v8.1 on the newest IBM hardware that is faster than any previous TPC-H benchmarks for a publication date to coincide with release date for DB2 v8.1
- Host the annual CASCON conference with >1500 attendees, demos, high-quality papers, keynote speakers, workshops on November 1-4, 2010
- Create an online web-based student feedback form to replace the paper form in time for courses in the Winter 2009 term

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# What is Project Management?

- Project Management<sup>1</sup>:
  - Provides people with tools that improve:
    - How they plan, implement, manage activities to accomplish objectives in a given timeframe
  - Is a “results-oriented” management style
    - Places importance on building collaborative relationships

<sup>1</sup>Grey and Larson, “Project Management: The Managerial Process 4e”, 2008

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# What is Project Management?

- Methodology:
  - Applicable in a many (most?) contexts
- Field of study
  - Academic research conducted
- Profession
  - Certification programs available
  - Learn more at the Project Management Institute:  
<http://pmi.org>

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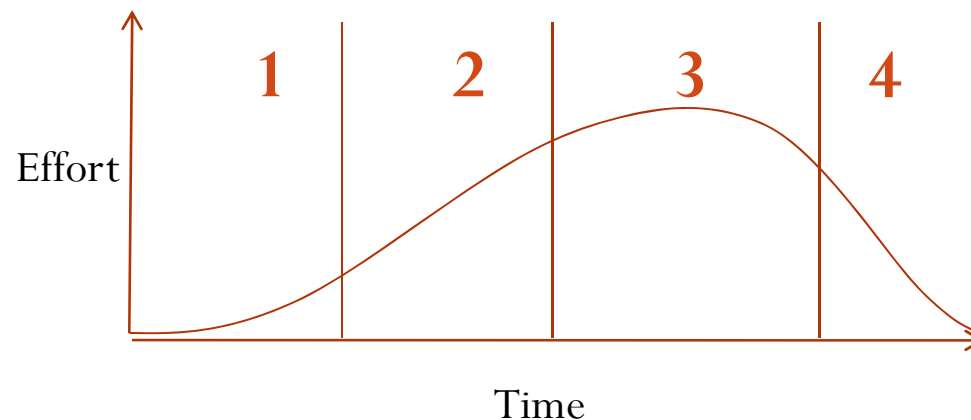
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# Project Lifecycle

1. Define (Initiate) (Option Development) (Conceive)
2. Plan (Plan and Design) (Define) (Develop)
3. Implement (Execute)  
    3.1 Monitor and Control
4. Deliver (Close) (Verify) (Finish)



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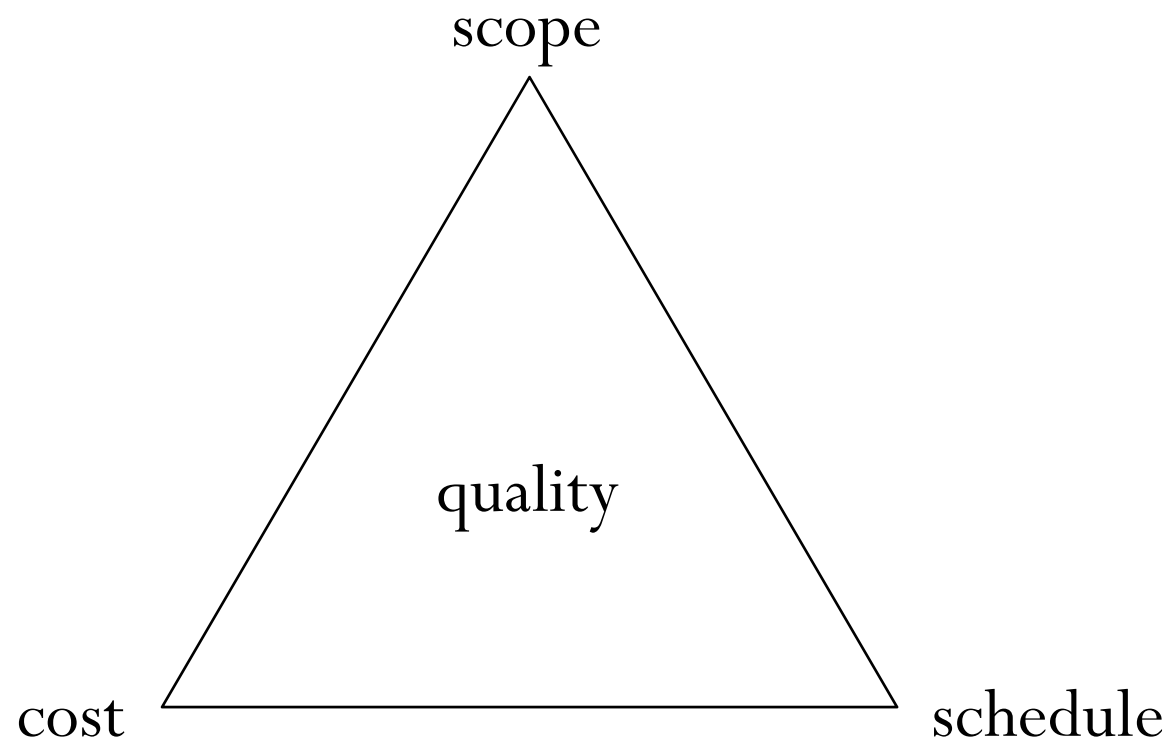
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# Project Management Triangle



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# Projects in Organizations

- Project Classification:
  - Compliance, emergency, must-do
  - Operational: to support current operations
  - Strategic: directly support organization's mission

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# Projects in Organizations

Project	Organization	Classification
TPC-H Benchmark	IBM DB2 Software Development Organization (with Hardware Organization)	Strategic
CASCON Conference	IBM Centers for Advanced Studies	Strategic
Online Student Feedback Form	iSchool @ University of Toronto	Operational

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# Organizational Mission

- What the organization wants to become
- Identifies organization in terms of products or services
- Provides a focus for decision making
- Components of mission statements:
  - Major products or services
  - Target customers or markets
  - Geographical domain
- Also include information about:
  - Philosophy, key technologies, values, public image, contribution to society, etc.

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# Organizational Mission

- [REDACTED]'s mission is to organize the world's information and make it universally accessible and useful.”

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# Organizational Mission

- “Google’s mission is to organize the world's information and make it universally accessible and useful.”

<http://www.google.com/corporate/>



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# Organizational Mission

- “The mission of [REDACTED] is to foster the search for knowledge and understanding in [REDACTED] and the wider community. To this end, we shall provide innovative services and comprehensive access to information founded upon our developing resources as one of the leading [REDACTED] in the world.”

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# Organizational Mission

- “The mission of the University of Toronto Library is to foster the search for knowledge and understanding in the University and the wider community. To this end, we shall provide innovative services and comprehensive access to information founded upon our developing resources as one of the leading research libraries in the world.”

<http://content.library.utoronto.ca/general-information/about-libraries/mission-statement>

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# Strategic Management Process

1. Review and define the organizational mission
2. Set long-range goals and objectives
3. Analyze and formulate strategies to reach objectives
4. Implement strategies through projects



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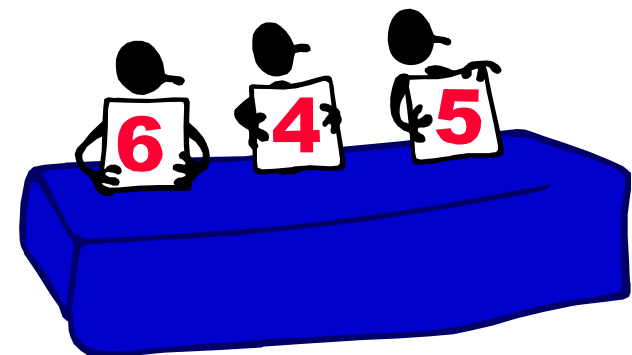
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# Managing a Portfolio of Projects

- Understand the organizational goals, mission
- Classify projects
- Decide where project proposals come from
- Define selection criteria and determine how project proposals will be evaluated
- Manage the portfolio of all projects



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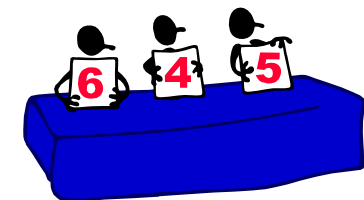
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# Define Selection Criteria

Give each project a score 1-5 for each criteria		Criteria 1 (includes social component)	Criteria 2 (enables everyone to participate)	Criteria 3 (raises money)	Weighted Total
Project	Weight (1-3)	3	2	3	



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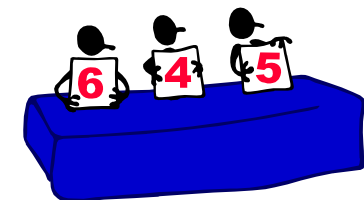
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# Define Selection Criteria

Give each project a score 1-5 for each criteria		Criteria 1 (includes social component)	Criteria 2 (enables everyone to participate)	Criteria 3 (raises money)	Weighted Total
Project	Weight (1-3)	3	2	3	
Dinner at Restaurant					
Skating Party					
Bingo Night					
Raffle					



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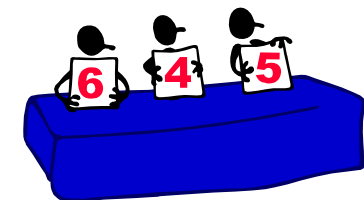
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# Define Selection Criteria

Give each project a score 1-5 for each criteria		Criteria 1 (includes social component)	Criteria 2 (enables everyone to participate)	Criteria 3 (raises money)	Weighted Total
Project	Weight (1-3)	3	2	3	
Dinner at Restaurant		5	3	3	
Skating Party		5	4	3	
Bingo Night		5	5	4	
Raffle		2	3	5	



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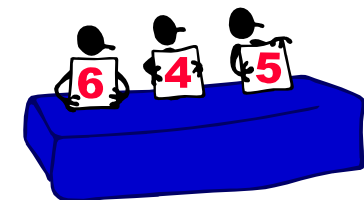
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# Define Selection Criteria

Give each project a score 1-5 for each criteria		Criteria 1 (includes social component)	Criteria 2 (enables everyone to participate)	Criteria 3 (raises money)	Weighted Total
Project	Weight (1-3)	3	2	3	
Dinner at Restaurant		5	3	3	30
Skating Party		5	4	3	32
Bingo Night		5	5	4	37
Raffle		2	3	5	31



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# Example Project Tools

- Project Charter
- Work Breakdown Structure
- RACI (RASCI) Chart
- Network Diagram

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# Project Charter

- “As a comprehensive overview of the project, the project charter allows all parties involved (stakeholders) to reach agreement and document major aspects of the project such as the objectives, the scope, the deliverables, and the resources required. The charter supports the decision-making process and is also often used as a communication tool.”

-- Treasury Board of Canada Secretariat

<http://www.tbs-sct.gc.ca/emf-cag/project-projet/documentation-documentation/guide-guide/guide-guide00-eng.asp>

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# Project Charter

- Objectives: Create an online, web-based, secure student feedback form ... for Winter 2009 term.
- Scope: Links to student registration information system, provides secure sign-in anonymously, ... , does not include administering feedback for individual courses
- Deliverables: Requirements by <date>, web design mock-up by <date>, beta version of form by <date>, ...
- Resources: Two web developers, consultation time with student services & faculty members & student council, server for development and test, ...
- Other details: Dependencies, risks, assumptions, cost est.

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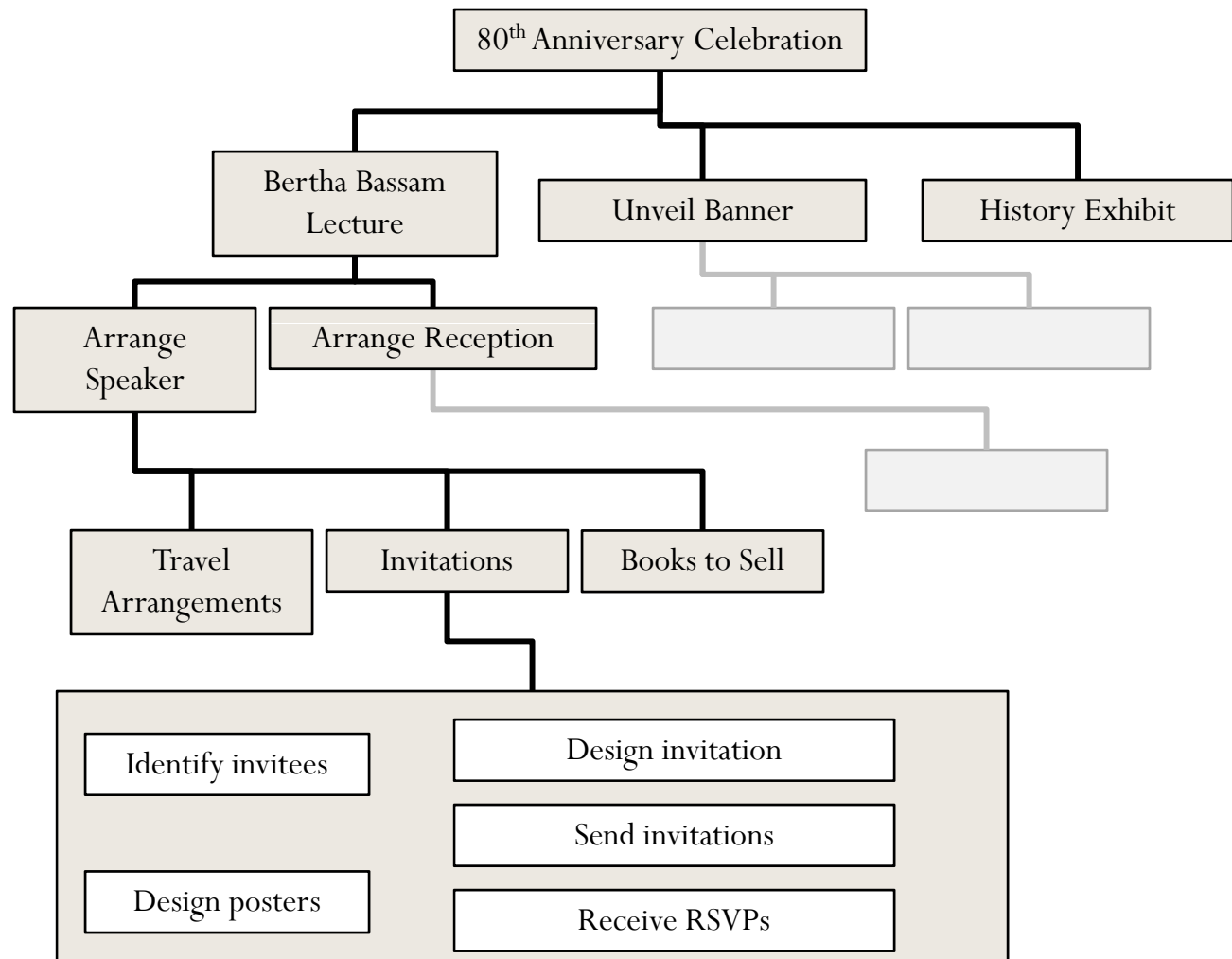
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# Work Breakdown Structure



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# RACI (RASCI) Chart

Activity	Kelly	Eric	Kathleen	Dean	Student
Compile mailing list from industry	R	C	A	I	
Select location			R, A	C	S
Send out electronic invitations	C		A	I	R
Design posters and invitation			R, A	C	S
Post posters around campus			A		R
Book Speaker's flights			A		R
Book Speaker's hotel room			A		R
Book Speaker lunch with dean			R, A	C	S
Book dinner for Speaker	C	R	A	I	
Arrange for Campus bookstore to sell copies of Speaker's books at event			R, A		S

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# Network Diagram

For each activity:

1. Which activities must be finished before this activity can be started?
2. Which activities can be done concurrently with this activity?
3. Which activities cannot be started until this activity is finished?

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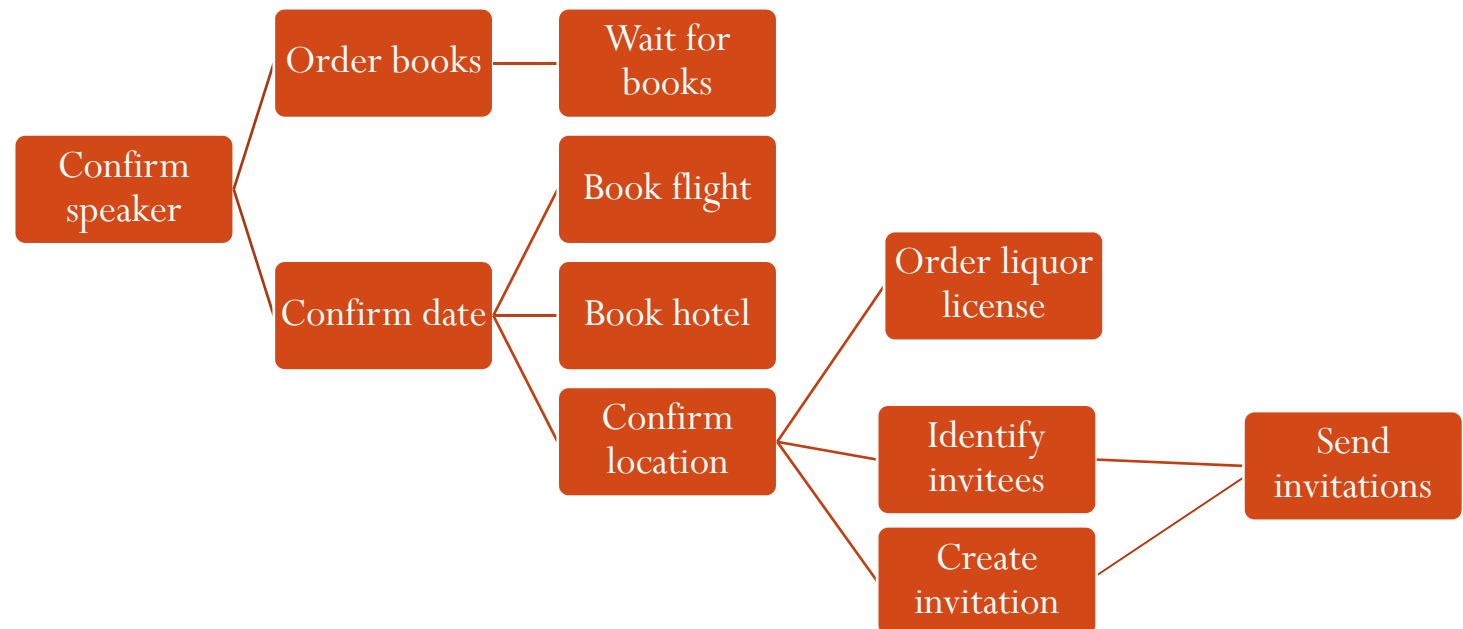
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# Network Diagram



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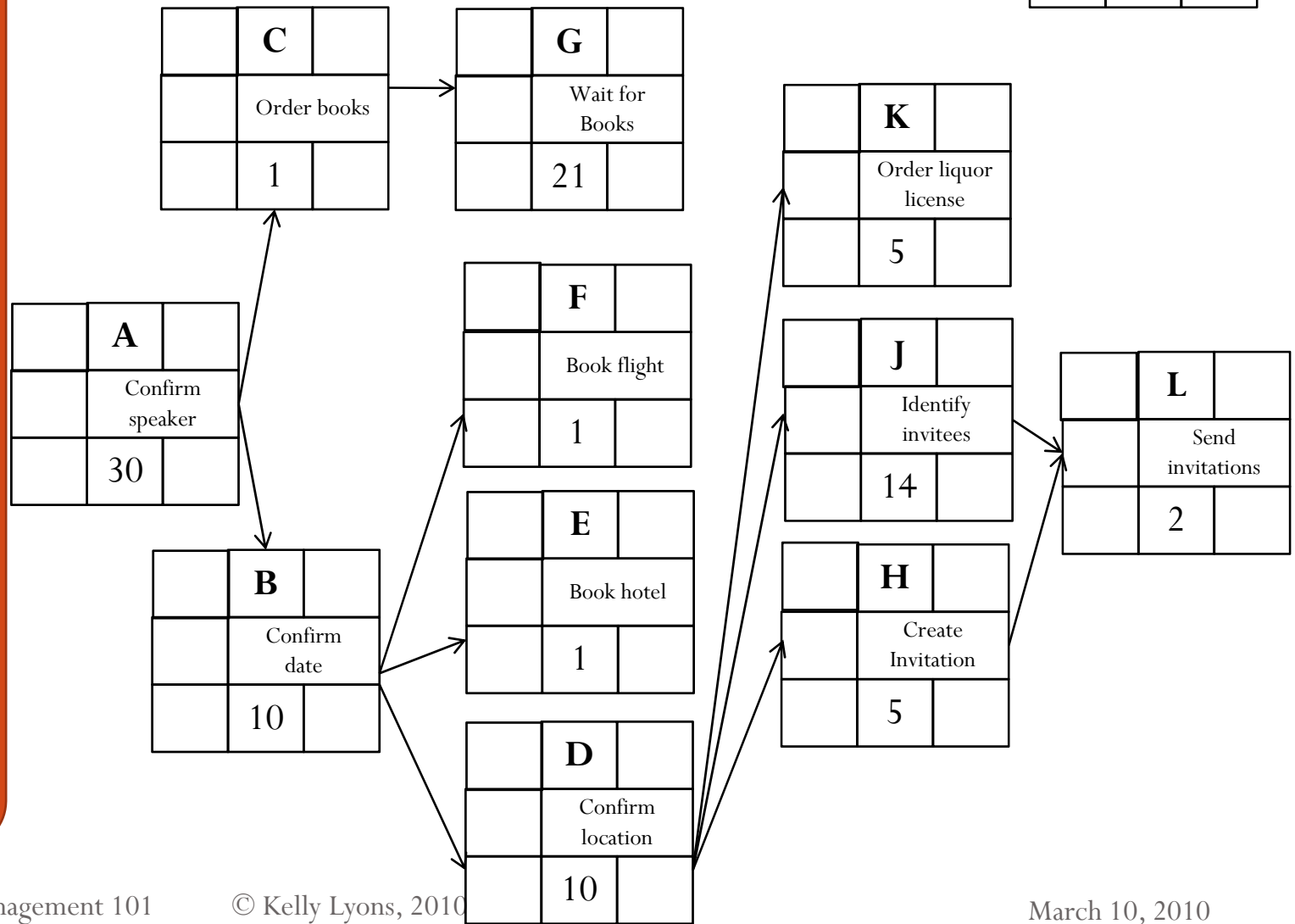
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# Network Diagram



ES	ID	EF
SL	Title	
LS	Dur	LF

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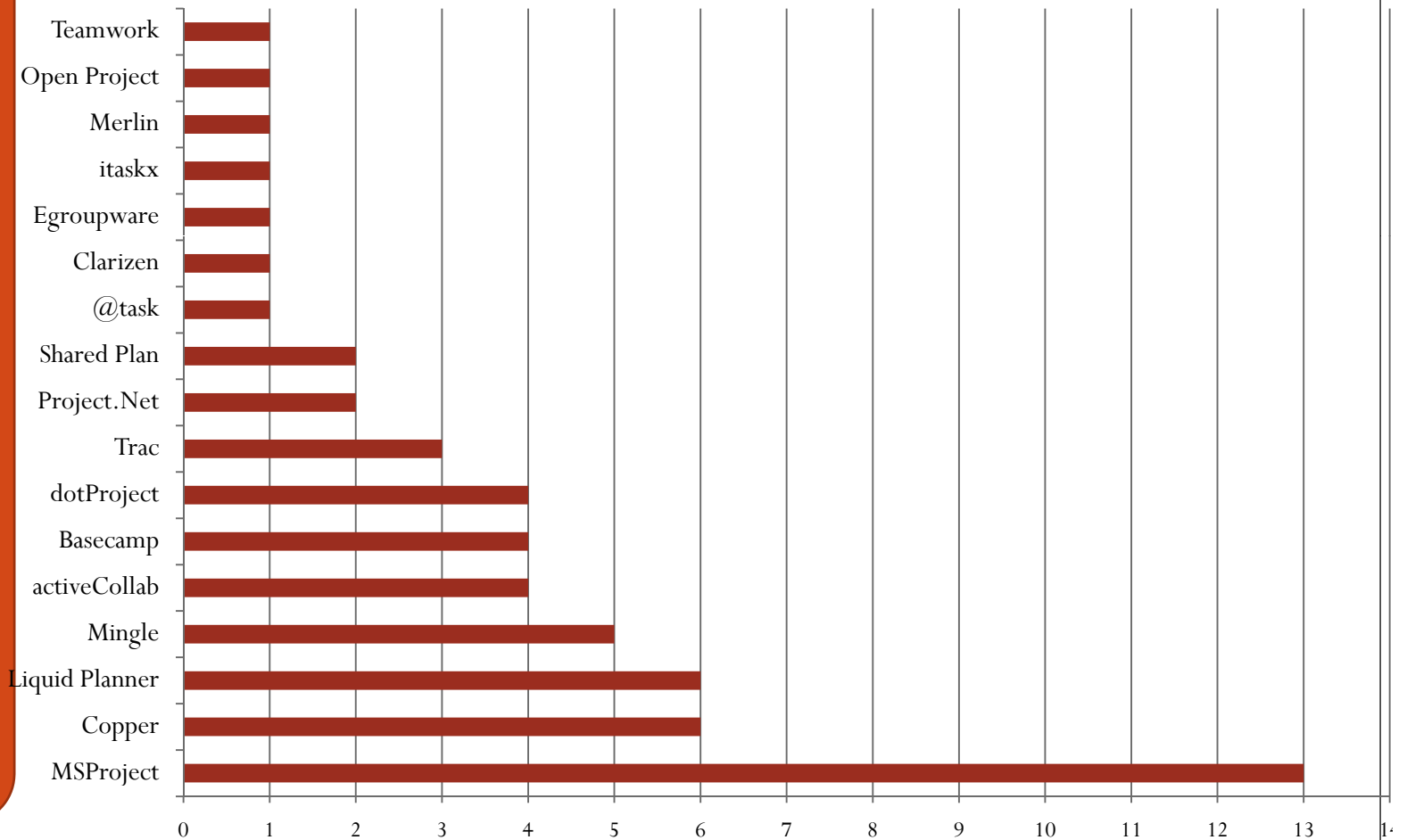
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# Project Management Software Packages

Number of evaluations by students per PM software package



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# Project Management Software Packages

Ranking of PM Software packages (by FIS2301 students Fall 2008) by number of recommendations as a percentage of evaluations

Rank	PM Software Package	% of recommendations per evaluation	Number of Recommendations	Number of evaluations
1	@task	100%	1	1
2	MSProject	58%	7	12
3	Basecamp	25%	1	4
4	Shared Plan	25%	0.5	2
5	Mingle	20%	1	5
6	LiquidPlanner	17%	1	6
7	Copper	8%	0.5	6

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# Leadership vs. Management<sup>1</sup>

## Leading

- Innovate, adapt, deviate from what was planned, manage plan through changes
- Cope with changes
- Recognize and articulate the need to significantly alter direction, align people with the direction, motivate, influence people

## Managing

- Integrate assigned resources to implement project according to plan
- Cope with complexity
- Formulate plan, set objectives, design structures, monitor results against plans, correct as needed

<sup>1</sup>Grey and Larson, “Project Management: The Managerial Process 4e”, 2008

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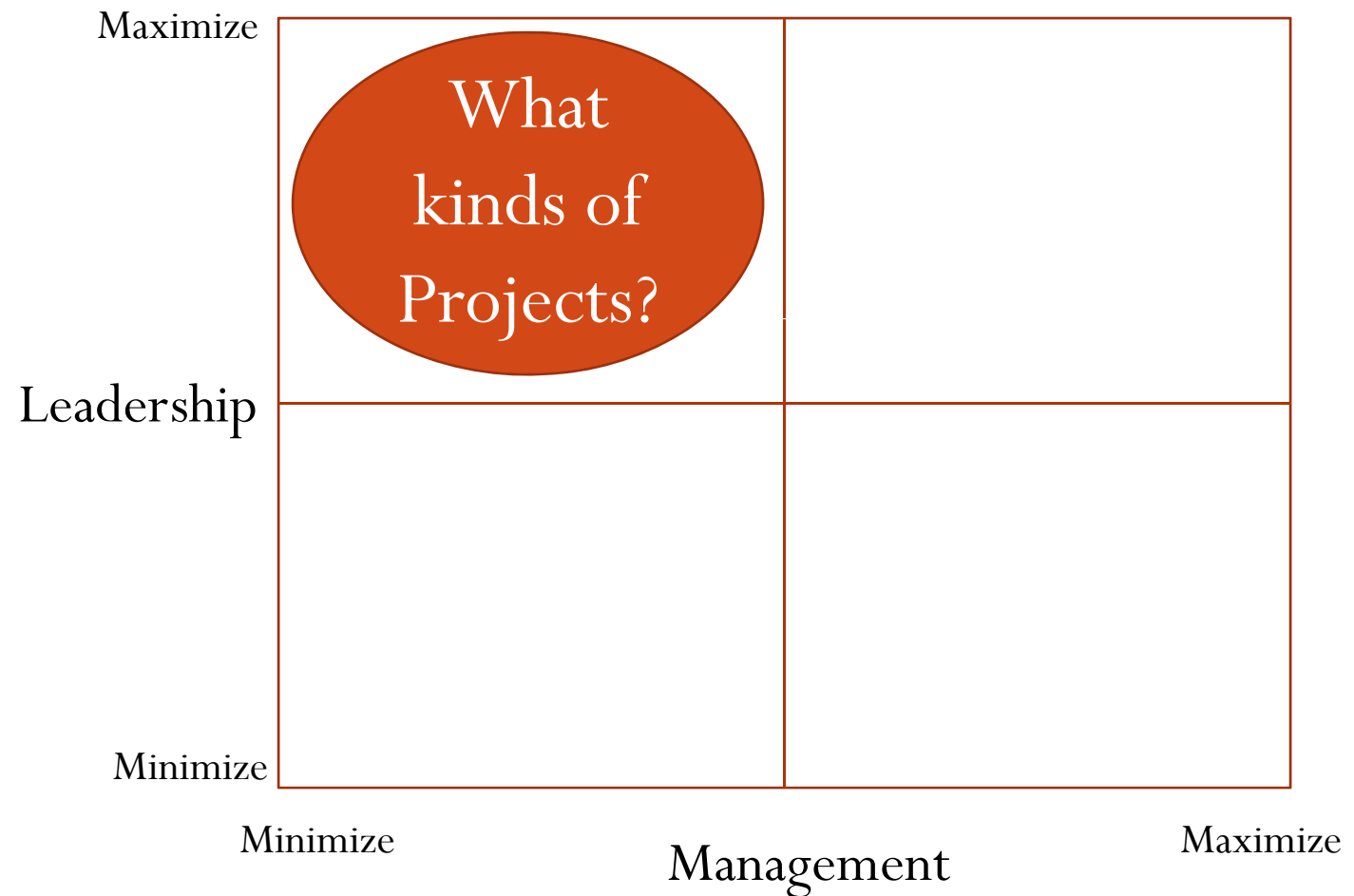
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# Leadership vs. Management



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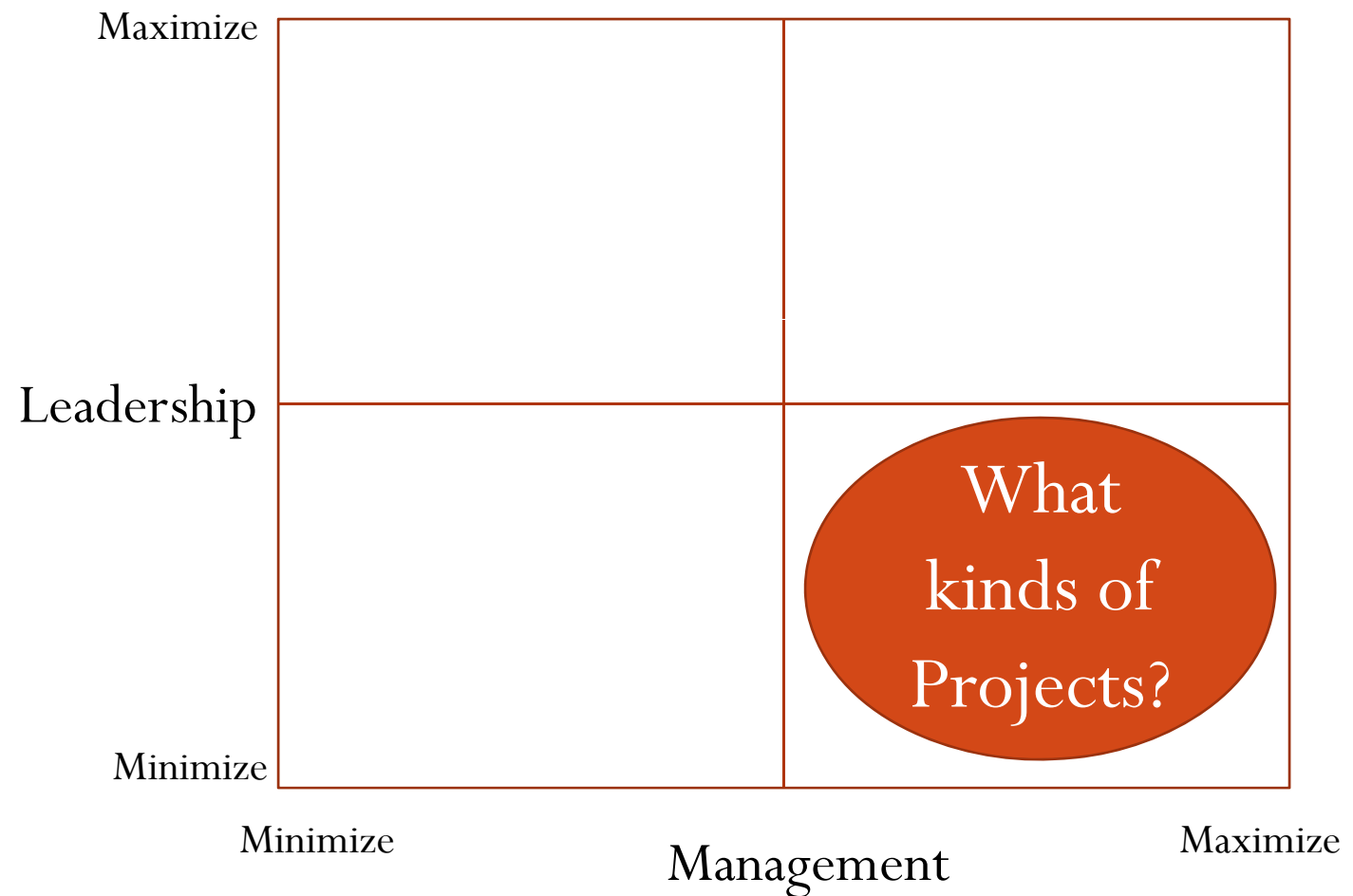
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# Leadership vs. Management



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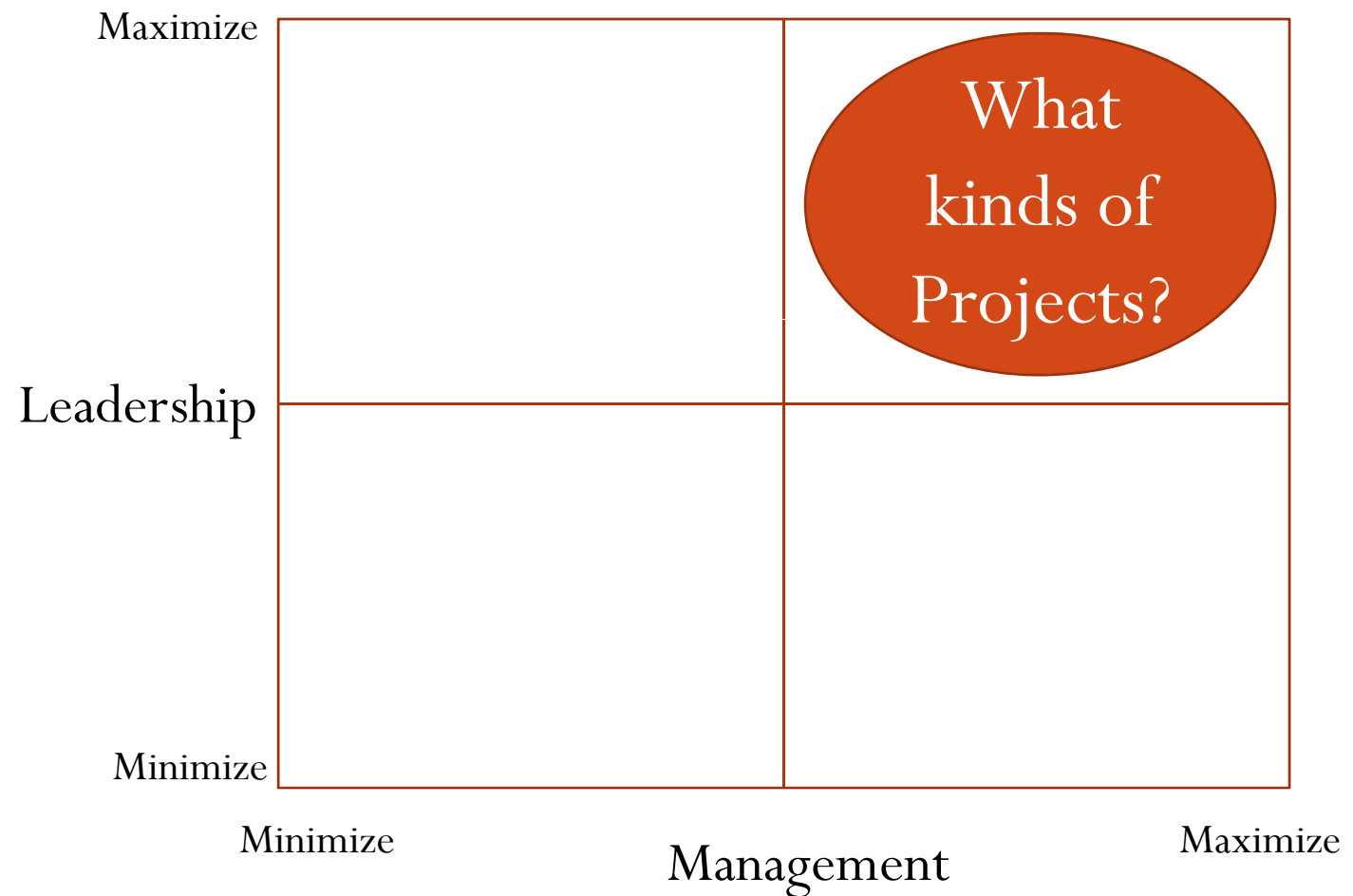
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# Leadership vs. Management



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# Another Perspective

- “You manage things, you lead people. We went overboard on management and forgot about leadership. It might help if we ran the MBAs out of Washington.”

-- Admiral Grace Murray Hopper from

<http://www.cs.yale.edu/homes/tap/Files/hopper-wit.html>



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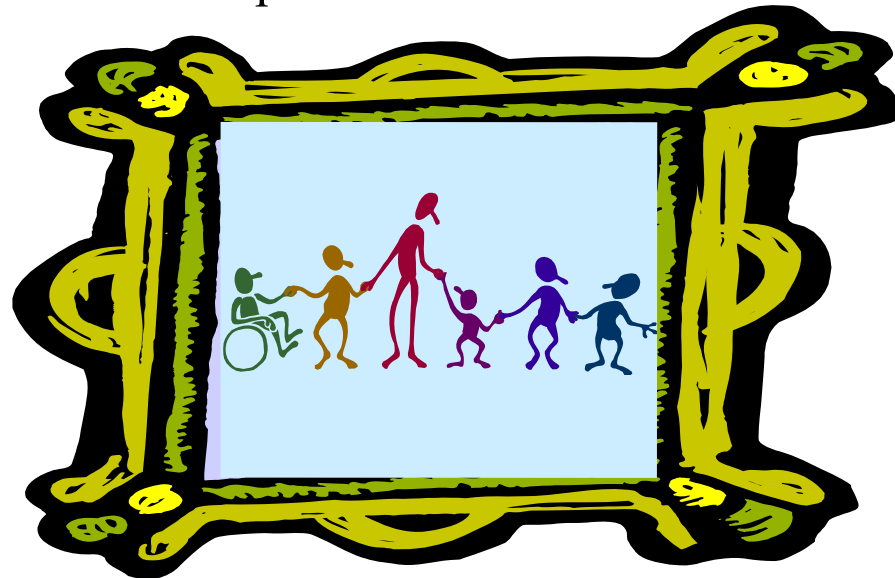
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# Project Teams

- Team members:
  - Interdependent
  - Bring individual skills, knowledge, expertise
  - Fit within the big picture of the project
  - Celebrate and respect differences



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# Project Teams

- Project managers and project teams:
  - Get to know team members, listen
  - Inspire and motivate the team
  - Empower them and involve them, delegate
  - Provide mentorship, help members develop
  - Use participative and consultative leadership style
  - Communicate (be explicit)



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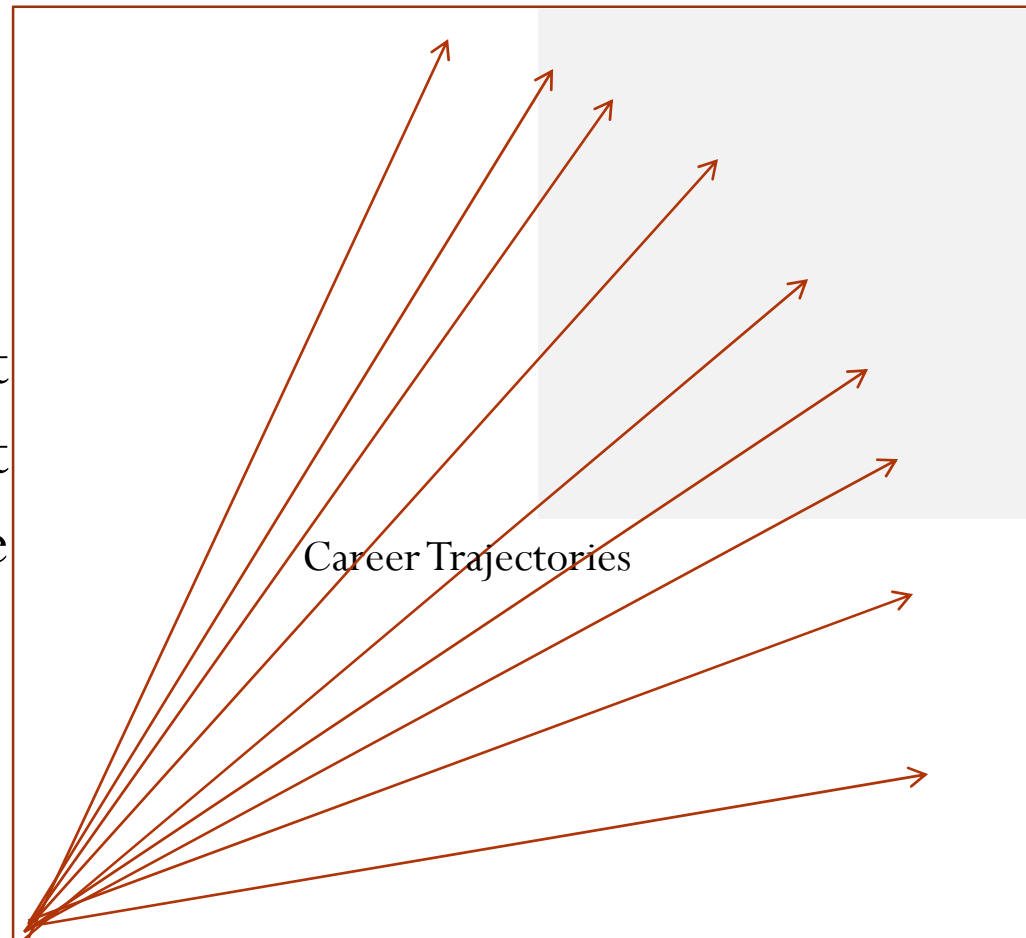
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# Career Trajectories

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Domain Expertise

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# Tips

“Jen”, Software Developer, IBM Software Group

- You don't need to be in a formal project management role to put what you learn into practice.
- Look for opportunities to manage time, risk, and cost, to negotiate and to plan. These skills are valuable not only for project managers but also in working with project managers and in many other careers.
- I haven't done certification but for those considering it, I'd also suggest getting familiar with the PMP application form and qualifying PM experience from the PMI website.
  - You need a lot of professional experience hours to qualify and it's probably easier to track those from the start rather trying to remember them all at the end
  - Knowing what qualifies makes it easier to look for opportunities to build up hours especially if you're not in a full blown PM role

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# Recap

- Deciding which activities to run as projects
- Selecting and prioritizing projects in line with organizational mission and goals
- Selecting key tools (techniques) to fit with the project, the organization, and its culture
- Applying management and leadership techniques to motivate, inspire, monitor, control, ...

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# Thank You and Questions

[kelly.lyons@utoronto.ca](mailto:kelly.lyons@utoronto.ca)

<http://www.individual.utoronto.ca/klyons>

# References

- Claudia M. Baca, *Project Management for Mere Mortals*, Addison-Wesley, 2007.
- Jack Gido and James P. Clements, *Successful Project Management Fourth Edition*, South-Western, CENGAGE Learning (Nelson Education in Canada), 2009.
- Clifford F. Gray and Erik W. Larson, *Project Management: The Managerial Process, 4<sup>th</sup> Edition*, McGraw-Hill, Irwin, 2008.
- Max's Project Management Wisdom, <http://www.maxwideman.com/>