

PROJECT MANAGEMENT FOR SCIENTISTS

INTRODUCTION TO THE COURSE

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OUTLINE

- Course Goals
- People
- Communications
- Required Book
- Schedule and Requirements
- Exam and Grades
- Project Management in 4 Slides
- Lecture Overview

MY COURSE GOALS

- Become a more successful scientist by organizing scientific ideas and projects
- Learn to take scientific ideas from initial visions to successfully funded projects
- Learn to look at project management as a way of thinking
- Improve your own projects in this course

PEOPLE

- Christoph Keller
Professor of Experimental Astrophysics
- Helena Becher
4th-year PhD student, Experimental Astrophysics

COMMUNICATIONS

- Blackboard
 - MSc students sign up on Osiris
 - Everybody else provide solis-ID and will be signed up on Blackboard only
- Email: C.U.Keller@uu.nl, H.M.Becher@uu.nl
- Course web page:
www.astro.uu.nl/~keller/Teaching/PMSci_2011
- Schedule, lectures, exercises, iCal calendar

REQUIRED BOOK



- The Fast Forward MBA in Project Management, **Third Edition** by Eric Verzuh
- Published by John Wiley and Sons Ltd
- Available at bookstores, bol.com
- Use selected chapters and as reference
- All lectures, exercises will be available on course webpage

COURSE SCHEDULE

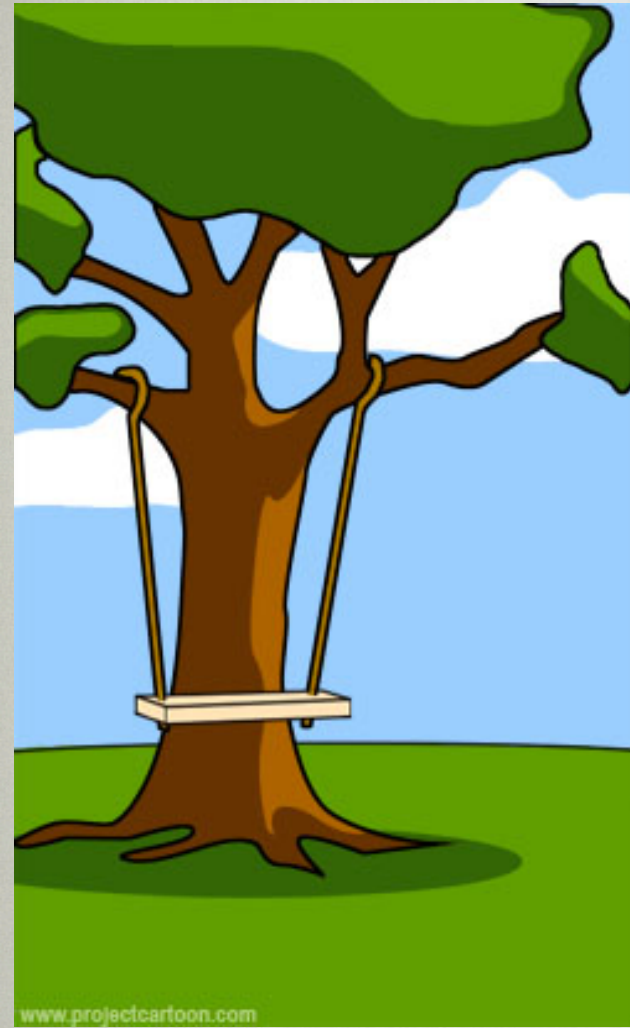
Day	Time	Room	Type
Monday	11:00-12:45	BBL 077	Lecture
Tuesday	09:00-10:45	BBL 077	Exercises
Tuesday	11:00-12:45	BBL 077	Lecture
Thursday	13:15-17:00	BBL 077	Exercises

COURSE REQUIREMENTS

- Exercises are integral part of course
- Computer and paper exercises
- Home work and some exercises have to be submitted by deadline
- Submitted work will be checked and / or discussed
- Solutions will not be made available in writing or online

EXAMS AND GRADES

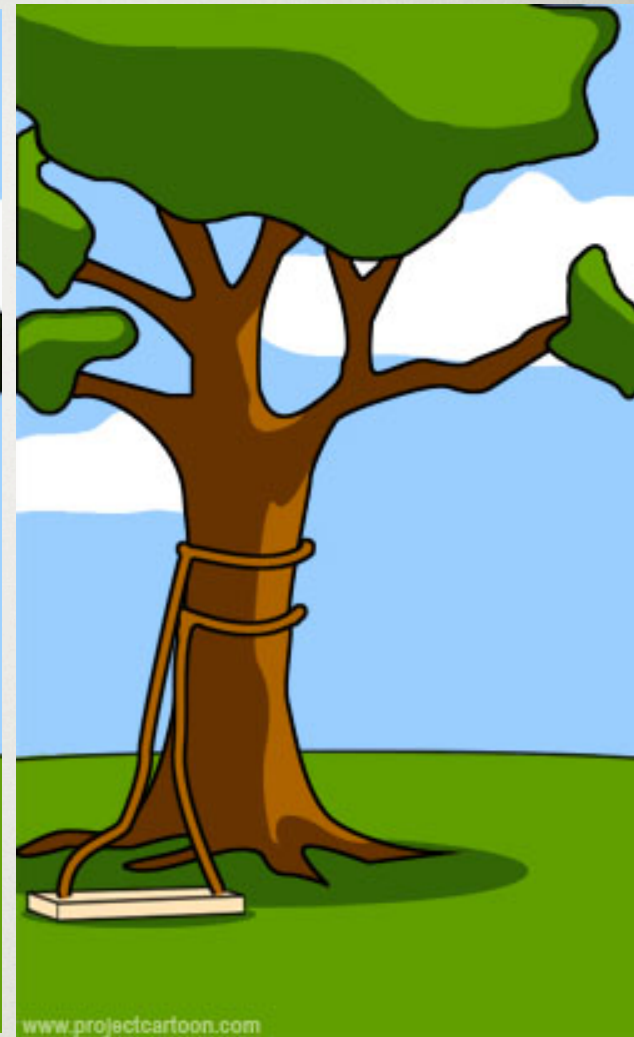
- Relevant documents for open-book exam
 - Lectures, books
 - Exercises and home work
- Written exam after course, oral exams after that
- Grade composition
 - 40% home work, exercises, reports
 - 60% exam



What the scientist
needed



How the scientist
described it to another
scientist



What the engineer
thought that the
scientist described



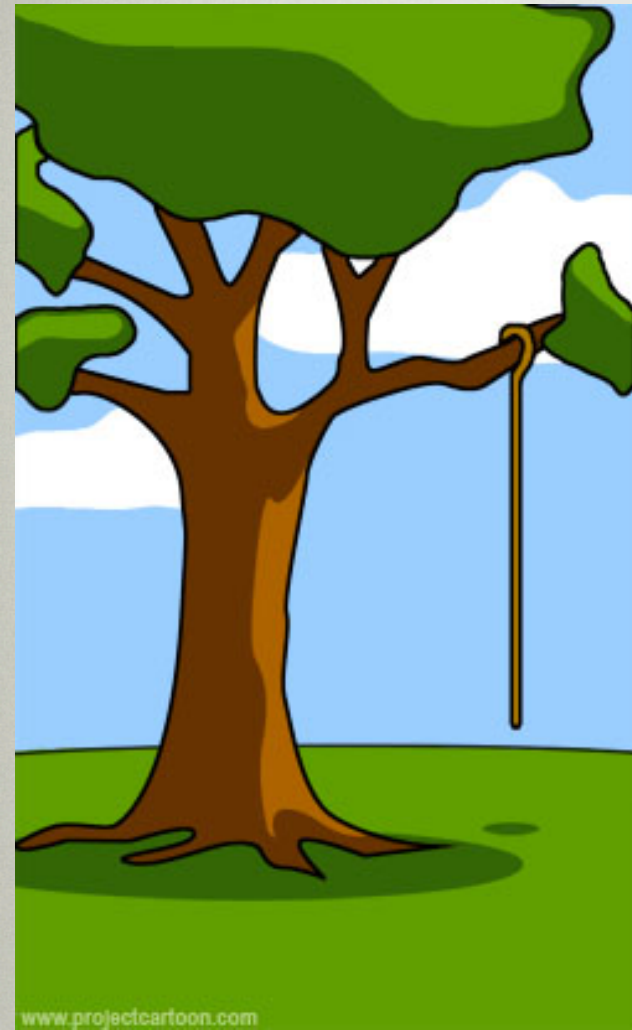
What the proposal
promised



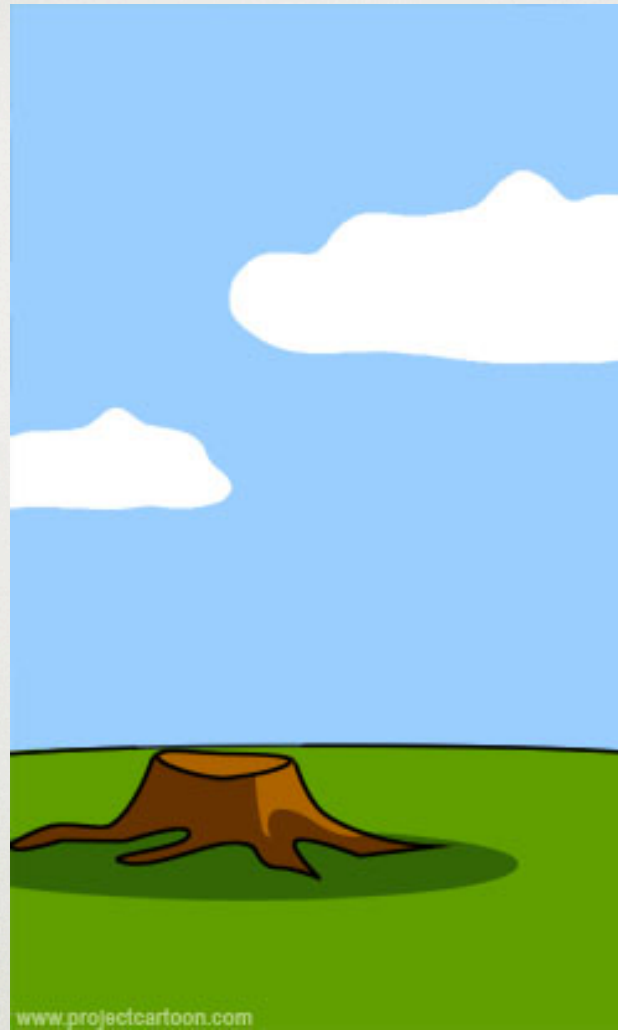
What the reviewer
understood



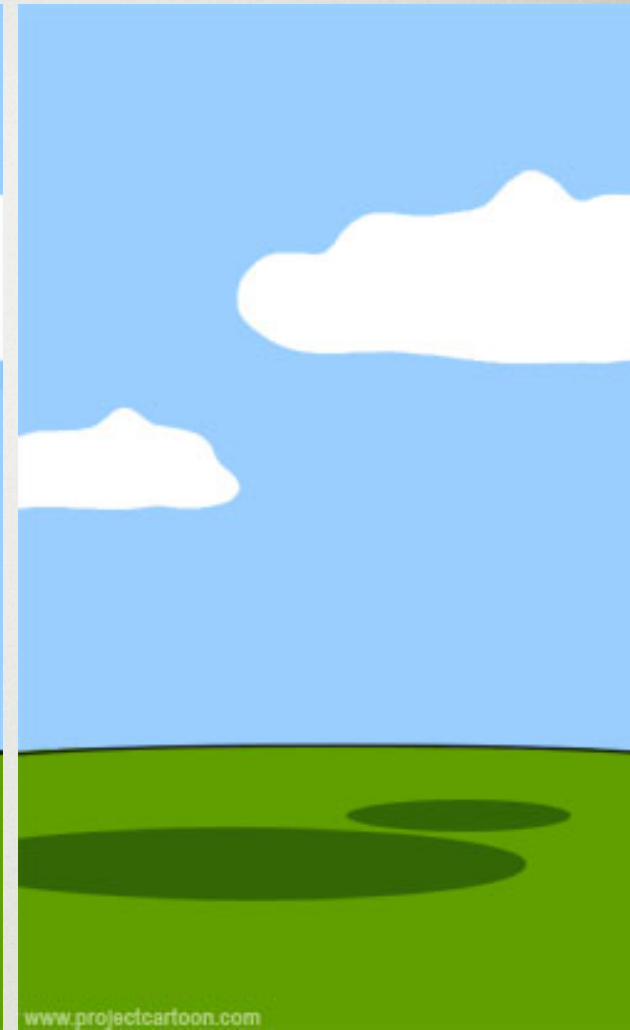
What the funding
agency was hoping for



What university
management was
hoping for



How university
management supported
it



How the project was
documented



When it was delivered



What the scientist really wanted

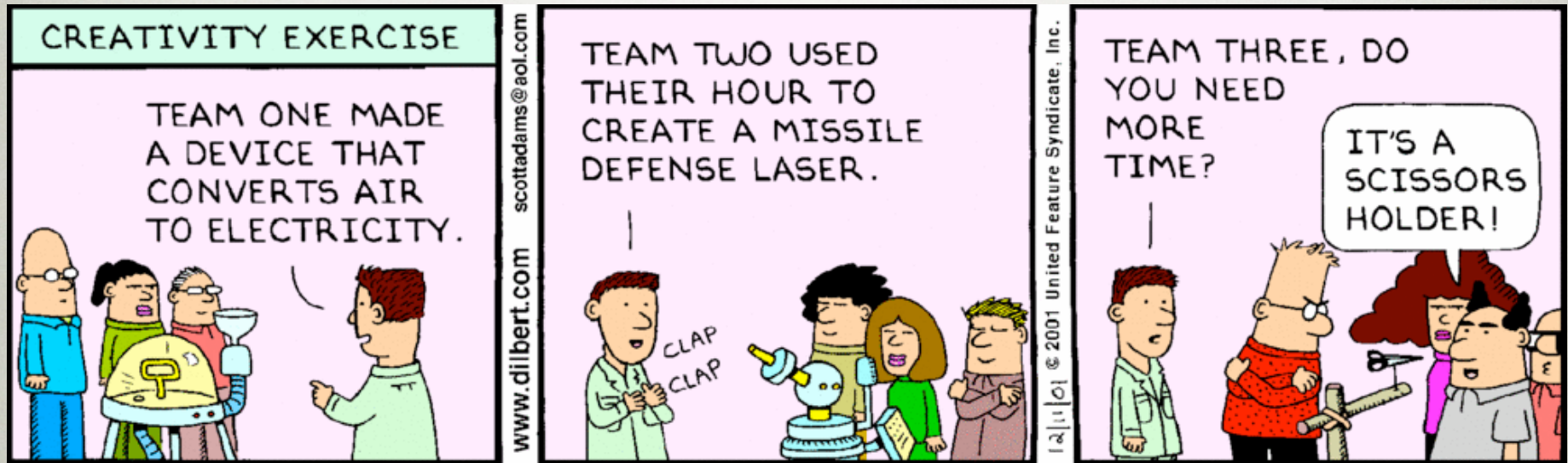
LECTURE OVERVIEW BY DILBERT



dilbert.com/strips/comic/2010-10-26/

- Not all lectures are fully defined yet
- Provide input on areas that are missing

SCIENTIFIC PROJECTS



dilbert.com/strips/comic/2001-12-11/

- Projects vs. Processes
- Cost - Schedule – Performance Triangle
- Project Lifecycle
- Just enough project management

SCIENTIFIC VISION AND STRATEGY



dilbert.com/strips/comic/2009-11-26/

- Scientific Visions
- Strategic Thinking and Planning
- Strategic Analysis (SWOT)
- Strategic Goals (SMART)

PROJECT DEFINITION



dilbert.com/strips/comic/1998-11-10/

- Key Players and Stakeholders
- Project Rules and Charter
- Project Statement of Work
- Responsibilities and authorities

SCIENTIFIC REQUIREMENTS



dilbert.com/strips/comic/2009-12-10/

- Science Objectives and Requirements
- Other Requirements
- Template and Example
- Checklist

PROPOSAL PLANNING & ORGANIZATION



dilbert.com/strips/comic/2002-01-02/

- Proposal as a Project
- Successful Proposals
- Proposal is Marketing

WORK BREAKDOWN STRUCTURE



dilbert.com/strips/comic/2010-03-08/

- Project Planning
- Work Breakdown Structure (WBS)
- Work Package Content
- Checklist

COST AND SCHEDULE ESTIMATES



dilbert.com/strips/comic/2010-05-05/

- Resource Assignments
- Estimates
- Task Dependencies
- Scheduling

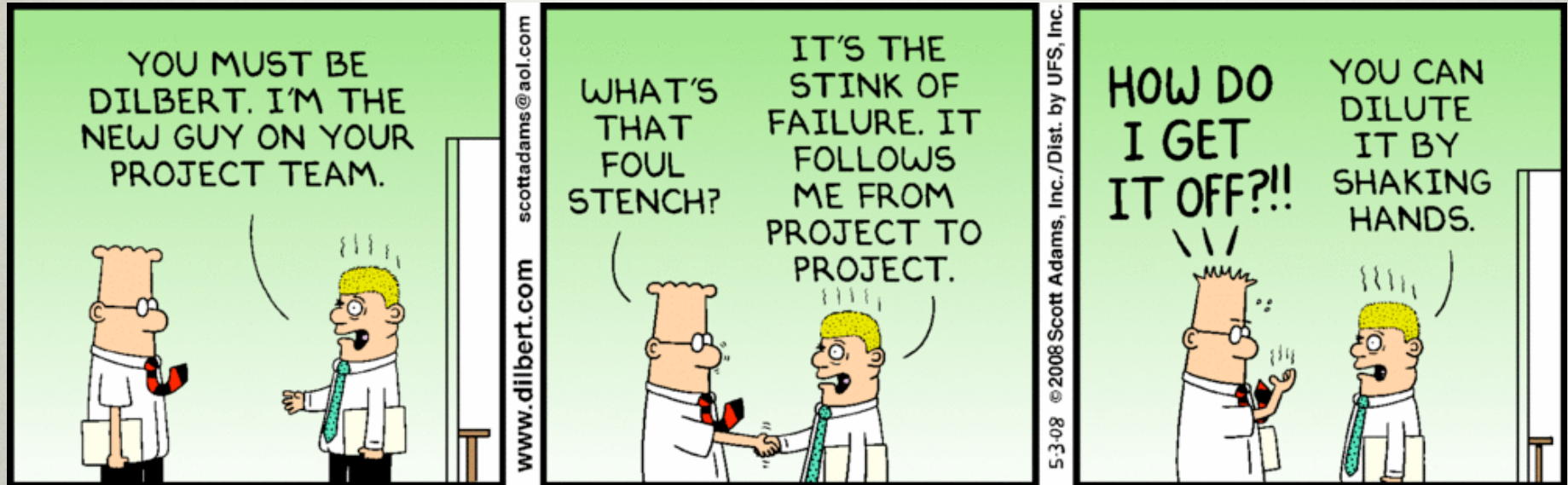
PROPOSAL WRITING



dilbert.com/strips/comic/1997-06-02/

- Top 10 reasons proposals are not funded
- Identifying funding source
- Writing and common writing mistakes
- Examples

TEAM FORMATION AND HIRING



dilbert.com/strips/comic/2008-05-03/

- Project Team Dynamics and Challenges
- Job Announcements
- CV
- Interviews and Hiring Decision

PROJECT ORGANIZATION & CONTROL



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- Resource Allocation
- Balancing
- Control Activities
- Change Management

ACCOUNTING AND COST CONTROL



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- Basic accounting
- Cost analysis and control
- Contracts and contract management

SCHEDULE & TIME MANAGEMENT



dilbert.com/strips/comic/2006-02-24/

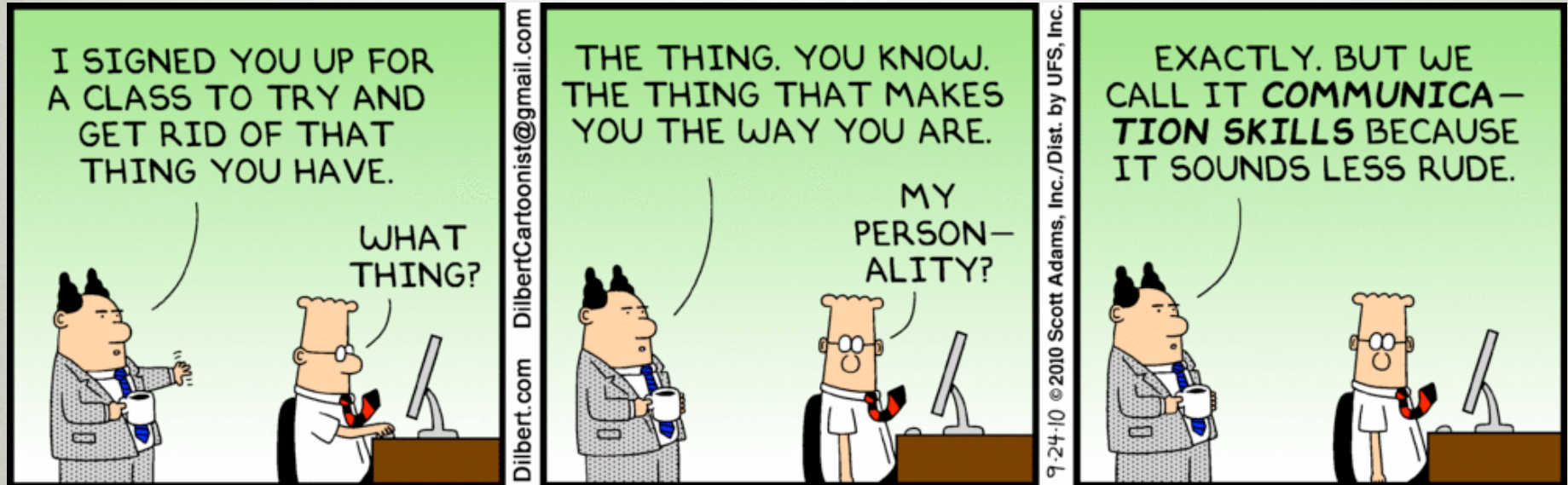
- Progress Measurement and Critical Paths Analysis
- Balancing at Project Level
- Project Overload
- Time Management

RISK MANAGEMENT



- Risk Management Framework
- Risk Identification
- Risk Analysis and Priority
- Risk Mitigation

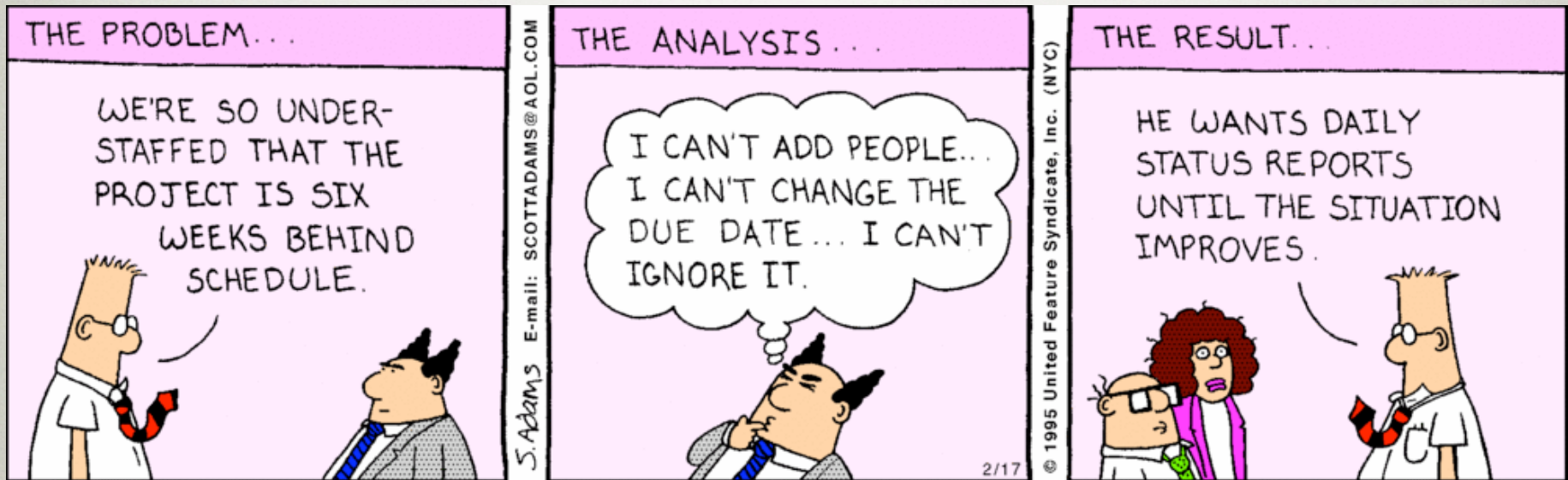
COMMUNICATION



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- Communicating downwards and upwards
- Communication plans
- Meetings
- Reporting

TYPICAL PROJECT PROBLEMS



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- Responsibility – Authority Mismatch
- Firefighting and Disaster Recovery
- Impossible Dream
- Project Success Factors