

# Project Management Primer

Mark Norman (OUCS)  
for IT Support Staff Conference  
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## Structure of this talk

- I plan...
  - What is a project (and what isn't)
  - Workable aims and objectives (and the project brief)
  - Two examples of projects
  - The team (and the project manager)
  - Some vocabulary!
  - Planning and scheduling
  - Gantt charts
  - Some software
  - Distributed teams

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Why plan?

- Why do some people not want to plan?
  - What is our answer to this?
- What are the benefits of planning?
- What are the dangers of planning?

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What is a project?

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What is a project?

- Projects should have:
  - specific outcomes
  - definite start and end dates
  - a budget
- Does that work at a University?
  - Bricklaying projects
    - (all building blocks known)
  - Discovery (research projects)
    - (don't know what we're going to find)

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## Early planning

- Project brief
  - A concise expression of the purpose (aims etc.), cost, time and performance requirements/constraints for a project.
    - Useful to achieve very early
  - The outline project plan as part of a funding bid
- Include the main objective
  - And then the secondary objectives
    - As much as you know at this stage

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## Is the project a good idea?

- Realistic?
  - SWOT analysis
- Cost/Benefit analysis
  - Of the final outcomes
  - Of the costs that will be incurred to make the project a success (or the 'system work' etc.)
- Is there work that the project will displace
  - You're busy already, right?

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## Defining your project

- *It's got to be clear, or else you'll never know when it's finished!*
- Quantity, quality, cost, time, resources, final outcome
- A clear objective (SMART)
  - have a usable brick wall outside the house...
  - produce a report (by...) that has appraised all of the available technologies to...
    - (you may have assumed that you will need to do more, but the report – with some quantity and quality measures – is the final outcome)

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## Types of projects

- Bricklaying
  - a known procedure
    - e.g. plan, buy machine, test, decommission old, install new, train users
    - e.g. plan, buy materials, dig footings, build wall, liaise with customer
- Research
  - lots of unknowns
    - e.g. plan, investigate a, investigate b, test a, write reports on a and b, build prototype, final report
  - typically 4 or 5 phase:
    - Conceive, Define/plan, Scoping, Research, Report

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## What did we learn there?

- Tasks
  - Bits of work (and it won't help breaking down any more)
- Work packages
  - Logical groupings of tasks (not necessarily carried out together)
- WBS
  - Work breakdown structure (the lists of tasks)
- Resources (people, usually)
- Dependencies
  - Driving the duration of the project
- Planning for the unknown
  - We should be able to estimate the durations of *most* tasks

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## Vocabulary!

- Champion
- Critical Path
- Gantt
- Milestone
- Project
- Project brief
- Programme
- Project Board
- Scope
  - Scope creep

.SMART  
.Sponsor  
.Stakeholder  
.Task  
.Workpackage

Glossary at  
<http://www.apm.org.uk/>

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## Planning down into the details

- Get as detailed as you can
  - You can always change it later
- Often a battle with more technical or knowledgeable colleagues
- You need this
  - To make decent estimates
  - To try not to forget anything
  - To be able to re-schedule (and re-prioritise) later when things go wrong

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## The team

- We often have little choice
  - But think about the variety of roles, personalities and expertise
- A team isn't simply a group
  - If you really want *team* work, everyone needs to feel responsible for some thing(s) and empowered
- Balance between wasting time and empowerment
  - You need team members' input when planning, estimating and re-scheduling
  - If everyone is keen, meetings are shorter

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## Whence the PM?

- Can you be a project manager of a project that you're working heavily upon?
  - Some can, some can't!
- If you have two projects consider having the project managers managing the 'other' project
  - It can work
  - But you may have a great overlap of staff between projects (which is a risk)
- Does the PM need to be a *leader*?
  - Depends on the team and larger organisation

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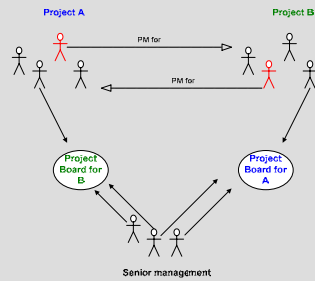
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## Teams, PMs and boards



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## Tracking progress

- Something to be done at the end?
- Not relevant in our environment?
- Do it on set dates
  - It is part of the project
  - It's your job – make sure you do it
- Things *will* go wrong
  - You need to re-schedule (it's normal!)
  - +/- 20% is OK if everything balances out

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## Ongoing costs

- Tracking costs
  - Costs incurred (actuals) vs budgeted cost and work done
  - Cost Performance Index (example)
 
$$\frac{\text{Budget cost of work performed}}{\text{Actual cost of Work performed}} = \frac{600}{750} = 0.8$$
  - Anything above 1.1 or below 0.8 should be investigated
  - Anything below 0.66 and you should advise the project board
  - And there are guidelines for actions in between

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## When things go wrong

- Staff changes
  - Almost certain for some projects
    - Always allow or 'hide' some slack
  - OK for the project?
- Slipping deadlines
  - Is there a pattern? (or is it part of the +/- 20%?)
  - Do you need to re-schedule or re-plan?
- Scope change
  - Bad
  - Watch out for it
  - Different scope or objectives = different project!

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## Distributed 'team' management

- These days, software helps
  - People can report frequently to say they've "done 80% of task 26"
  - Software can chart the progress automatically.
- Email lists, wikis, calendars
  - All optional, but avoids having too many meetings (or having to wait for meetings)

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## Some software

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| <ul style="list-style-type: none"><li>• Planning<ul style="list-style-type: none"><li>– Microsoft Project<ul style="list-style-type: none"><li>• Probably the most accessible (but a little complicated)</li></ul></li><li>– Imendio Planner<ul style="list-style-type: none"><li>• Open source, free</li><li>• Very simple, MS Project-like approach</li><li>• (Available for Windows and Linux)</li><li>• <a href="http://www.imendio.com/projects/planner/">http://www.imendio.com/projects/planner/</a></li></ul></li></ul></li></ul> | <ul style="list-style-type: none"><li>• Managing<ul style="list-style-type: none"><li>– Microsoft Project<ul style="list-style-type: none"><li>• Complicated and not primarily designed for collaborations</li></ul></li><li>– dotProject<ul style="list-style-type: none"><li>• Open source, free</li><li>• Installs on a server</li><li>• Very good for collaborations</li><li>• Works in your browser (Internet Explorer, Firefox etc.)</li><li>• <a href="http://www.dotproject.net/">http://www.dotproject.net/</a></li></ul></li></ul></li></ul> |
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## Things I haven't mentioned

- Quite a lot...
- Critical path on a gantt chart
- Risk assessment/management
- Team building strategies
- The financials
- Scope creep
- When to write a project off
  - And maybe formulate another
- Reviewing successful and unsuccessful projects

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## Resources

- Within the University:
  - Learning institute
    - <http://www.learning.ox.ac.uk/>
    - Project management lunchtime and day-long seminars
  - OUCS
    - <http://www.oucs.ox.ac.uk/learning/>
    - Project planning course (maybe project management soon)
- Higher Education
  - Leadership Foundation for Higher Education - some resources and training etc. <http://www.lfhe.ac.uk/>
  - (Was previously Higher Education Staff Development Agency <http://www.hesda.org.uk/>)
  - See <http://www.hesda.org.uk/activities/publications/gmp.html>

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## Resources (2)

- British Educational Research Association
  - <http://www.bera.ac.uk/index.php>
- <http://www.grad.ac.uk>
- Project Management Institute (International)
  - <http://www.pmi.org>
  - <http://www.edsig.org/> (Education SIG for the PMI)
- International (academic) research into PM, based in Manchester.
  - <http://www.umist.ac.uk/departments/civil/research/management/rethinkpm>

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The end

- Questions?
- These notes (and project files etc.) at
  - <http://users.ox.ac.uk/~markn/projplan/itss/>
- Mark Norman
  - [marknorman@oucsxacuk](mailto:marknorman@oucsxacuk)

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A project definition

(Sunny and Kim Baker)

“A project is a sequence of tasks with a beginning and an end that are bounded by time, resources and desired goals. This means that a project has a specific, desired, outcome; a deadline or target date when the project must be finished; and a budget that limits the amount of people, supplies and money that can be used to complete the project.”

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