



Carnegie Mellon University

# Technology Planning

# Technology plan

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- What is the value of a technology plan?
- When would a technology plan be useful?

# Values of a Technology plan

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- Strategic instead of ad-hoc
- Well integrated into programs and administration
- Active instead of reactive
- Create a robust technical environment
- Can still be opportunistic: Take best advantage of opportunities.

# Pump v. Sustainable water source

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- How would you install a *pump* technology plan?

# Pump v. Sustainable water source

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- How would you install a *pump* technology plan?
- How would you build a *sustainable water source* technology plan?

# Arts/Boston

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- Why did they feel they needed a technology plan?
- Do all organizations need technology plans?
- What are the conditions which make technology planning important?

# Arts/Boston

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“Arts/Boston had never before considered its technology expenditures as consumables.”

- What does this mean?

# Arts/Boston

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"We started to integrate our technology needs into every proposal and target specific technology requests. The process helped us articulate why technology was vital to our mission."

- Notice:
  - Once it is understood how technology is to vital to the mission, then:
    - It can be integrated into proposals
      - It is "program expense" not "overhead"
    - It is budgeted as an operating expense
      - I.e. consumable, not a capital expense

# Learning to budget for technology

Orgs tend to follow the path:

1. No technology
2. Gifts, scraps, make do
3. Computers are a capital expense
  - I.e. special, one-time, not regular
4. Technology is an operational expense
  - Budgeted each year
  - (With perhaps periodic capital expenditures)

# Budgeting - Total Cost of Ownership

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- Don't consider only initial costs, but **total cost of ownership**
- I.e. The total cost of purchasing, owning, maintaining, and updating a technology.

# Include into Total Cost of Ownership

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- Purchasing
- Training
- Normal operations
  - e.g. updates, backup
- Repairs and maintenance
  - Internal staff and/or consultants
- Software
  - Commercial Off-The-Shelf (COTS)
  - Custom-build
- Upgrades
- Regular replacement

# Arts/Boston

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- What technology planning steps did Arts/Boston take?

# Arts/Boston

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- What do you think were the key factors to its success?

# People, process, plan

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1. Assemble a team who will be involved in planning.
2. Devise a planning process.
  - Provide a planning process framework
3. Initiate a working-document technology plan.

# People

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- Who should be on the team?

# People - on the team

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- Organization management team
  - Executive Director / CEO
  - CFO / accountant
  - Key program directors
    - Especially where technology could be of high value
  - Not necessarily the **whole** team, but good representation

# People - on the team

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- Organization technology staff
  - Accidental techie(s) or actual IT staff (leader)
- Board member(s)
  - To ensure board support
  - Bonus if board member has IT expertise
- Extra volunteer committee members
  - To bring additional technical expertise

# People - keeper of the plan

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- Someone should be identified as the keeper of the plan.
- They have primary responsibility for:
  - Convening the meetings
  - Planning agenda (around the plan)
  - Updating the planning document
  - Tracking status of the plan
  - Managing implementation of the plan
- Your CP is often the likely keeper

# Your role - People

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- So what is your role in assembling this team?

# Your role - People

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- So what is your role in assembling this team?
  - Prepare yourself with a good understanding of the roles on the team.
  - Communicate with your CP the roles necessary on the team
  - Work with your CP to identify team members

# Build on existing processes

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- Ask early on:
  - Do you have a strategic planning process already in place?
  - Has it addressed technology?
  - How can we build on that process?


# Process - if none in place

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- What do the team members do in the meetings?

# Process

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1. Assess their current state
  2. Explore the possibilities
  3. Build the organization's Vision
  4. Develop (mixed/incrementally) strategies to meet that vision
    - Develop budgets for each strategy
  5. Implement (mixed/incrementally) strategies
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# What does (mixed/incrementally) mean?

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- Some of vision does not have strategies defined yet
- Some strategies are only loose ideas
- Some strategies have concrete implementation steps defined
  - Some have budget fully defined
- Some strategies have begun implementation
- Some strategies have been completely implemented

# Technology Plan - Working Document

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- The Technology Plan is a working document
- It captures the knowledge of the planning committee
- It guides the planning committee
- It guides staff implementing the plan

# Prototypical technology plan

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- I. Technology vision statement
- II. Statement describing org's mission and programs.
- III. Statement describing org's current use of technology and how it supports program operations.
- IV. Descriptions taken from "About the Org"
  - Staff computer skills
  - Technology infrastructure
    - I.e. Inventory of HW, SW, networks
  - Technology management practices

# Prototypical tech plan (cont.)

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- V. Statement of long-and short-term technology goals.
- VI. Strategy for meeting the plan's goals.
- VII. Timeline for meeting the plan's goals.
- VIII. Budget detailing the costs of implementing the plan.
- IX. Evaluation criteria to determine whether the plan's goals have been met.