Aligning business and IT strategies JKU-2018
https://sites.google.com/site/cadiz2018may/

Visiting lecturer
Pekka Makkonen
http://users.jyu.fi/~pmakkone
Jyväskylä, Finland
Updated May 10, 2018
Changes are possible before the start of teaching module on May 21

1

Agenda

- Lecture content
  - Jyväskylä (shortly) and JyU www.jyu.fi
    - See IT faculty and Master Programs of IS&IS through English at https://opiskelu.jyu.fi/en/apply/programmes/is/course-descriptions
      - You are invited to join us for example under Erasmus+ flag
  - Aligning business and IT strategies

  - Discussion exercise
    - Instructions for the start
    - More instructions next time

References

- Turban et al. (2010->)IT for management
- Laan, S. (2017) IT infrastructure

Learning goals

- Understanding the steps which are included in the alignment of business and ICT

- Understanding some basic methods in the alignment

- Understanding outsourcing and the choices for this

Basic of alignment/Why alignment is needed?

- Diamond Management & Technology Consultants
  - 87% of business leaders think that IT is needed for strategic business success
  - If no alignment with business strategy, there is a big risk that ICT projects will be **abandoned** before completion

Things to be planned

Business strategy

IS strategy

Information systems

IT strategy

Investments on IT

Main players
CEO
CIO

Keep in mind: The meaning of a strategy is making us stronger than others-getting strategic benefit through
- Lower costs
- Alliance
- Differentiation
- Etc.

IT strategy initiation/key resource attributes that CIO must look at

Resource attributes	Description
Value	The degree to which a resource (ICT software or solution) can help a firm to improve efficiency or effectiveness
Rarity	The degree to which a resource in non-heterogeneously distributed across firms in an industry
Appropriability	The degree to which a firm can make use of a resource incurring an expense that exceeds the value of the resource
Imitability	The degree to which a resource can be readily emulated
Mobility	The degree to which a resource is easy to transport
Substitutability	The degree to which another resource can be used in lieu of the original resource to achieve value

IT strategy initiation/concerning IS resources and capabilities that CIO must ...

IS resource/capability	Description	Relationship to resource attributes
Technology resources	Includes infrastructure, proprietary (proper) technology, hardware, and software	Not necessarily rare or valuable, but difficult to appropriate (take) and imitate. Low mobility but a fair degree of substitutability.
IT skills	Includes technical knowledge, development knowledge, and operational skills	Highly mobile, but less imitable or substitutable. Not necessary rare but highly valuable.
Managerial resources	Includes vendor and outsourcer relationship skills, market responsiveness, IT-business partnership, IS planning and management skills	Somewhat more rare than the technology and IT skills and resources. Also of higher value. High mobility given the short tenure of CIOs. Nonsubstitutable.

IT strategy initiation/partnership between IT and business management

- It is a good idea, because of the current digital economy, that a CIO is a part of a steering committee/top management team
- For good communication tools such as the matrix of business improvements have been suggested (see later in this slideshow)

IT strategic planning and measuring/Critical success factors (CSF)

- In every organization there are 3 to 6 factors that, if done well, will result in the organization's success
  - Measures are based on organizational objectives

IT strategic planning/Critical success factors/what IT planners should do?

- IT planners should interview business managers. The questions can be as follows
  - What objectives are central to your organization?
  - What are the critical factors that are essential to meet these objectives?
  - What decisions or actions are keys to these critical factors?
  - What variables underlie these decisions, and how are they measured?
  - What information systems can support/supply these measures?

IT strategic planning/thinking about business processes

- CIO must communicate the value of IT to the business managers/people to show the potential role of IT is understood
- One tool in this could be opportunity matrix of business improvements with IT

Matrix of business improvements

Business improvement with IT	High impact value	Low impact value	No value	Description of the business value of the improvement
1. Improve process efficiencies	X			
2. Increase market share and global reach		X		
3. Reach new markets audiences and channels		X		
4. Improving external partnering capabilities		X		
5. Enable internal collaboration		X		Knowledge management tool. For example: Microsoft Yammer.
6….				
7.				
8.				

IT strategic planning/Balanced scorecard

- Balanced scorecard is a performance measurement approach that links business goals to performance metrics

- Questions included
  - How do customers see the company?
  - At what business processes the company must excel?
  - Can the company continue to improve and create value?
  - How does the company appear to shareholders?
  - An simplified example
    - See https://www.smartdraw.com/balanced-scorecard/examples/ or next page

A simplified example

Smith National Bank

	Strategy			
	Objectives	**Measures**	**Targets**	**Initiatives**
Financial	Increase Margins	Increase in Dollars' Profit	30% Revenue	Lower Interest Rate and Therefore Increase Lending
Customer	Decrease in Loan Interest Rate	Smaller Percentage	Decrease by 2%	Decrease Advertised Interest Rate
Internal Business Processes	Increase Lending	Quantity of Money Being Loaned	$10,000 Increase	Decrease Interest Rate
Learning & Growth	Monitor Demand For Loans	Number of Loans Being Taken Out	40 Loans	Adjust Interest Rate as Needed

Adapted from the Balanced Scorecard by Robert S. Kaplan and Dave P. Norton. Harvard Business School Press. 1996.

Example about balanced scorecard applied for IT especially

| TABLE 13.6	IT Project Balanced Scorecard					
IT Project	Project's Role in Strategic Business Plan	Project's Evolving versus Stable Knowledge	Degree of Change Needed in the Project	Where the Project Gets Sourced	Data's Public or Proprietary Nature	Project Budget
Infrastructure	Efficiency	Stable	Low	Outsourced	Proprietary	Small
Application Services	Customer focus	Evolving	High	ERP software	Proprietary	High
Data Services	Innovation	Evolving	High	Business intelligence software	Proprietary	High
Security Services	Compliance requirement	Evolving	Low	Outsourced	Proprietary	Small

IT project –based portfolio

Descriptions: http://sloanreview.mit.edu/article/the-dynamic-synchronization-of-strategy-and-information-technology/

16

Indicators in balanced scorecard

Indicator	Example of Criteria
Financial	- Revenue and revenue growth rates - Earnings and cash flow - Asset utilization
Customer	- Market share - Customer acquisition, retention, loyalty - Brand image, reputation - Price-value relationship
Business processes	- Cycle time, defect rate - Production throughput, - Cost per process - Cost per transaction
Innovation, learning, and growth	- Employee skills, morale, turnover, capacity for change - IT capabilities - Employee motivation - R&D - Percentage of revenue from new products/services

For the end about balanced scorecard
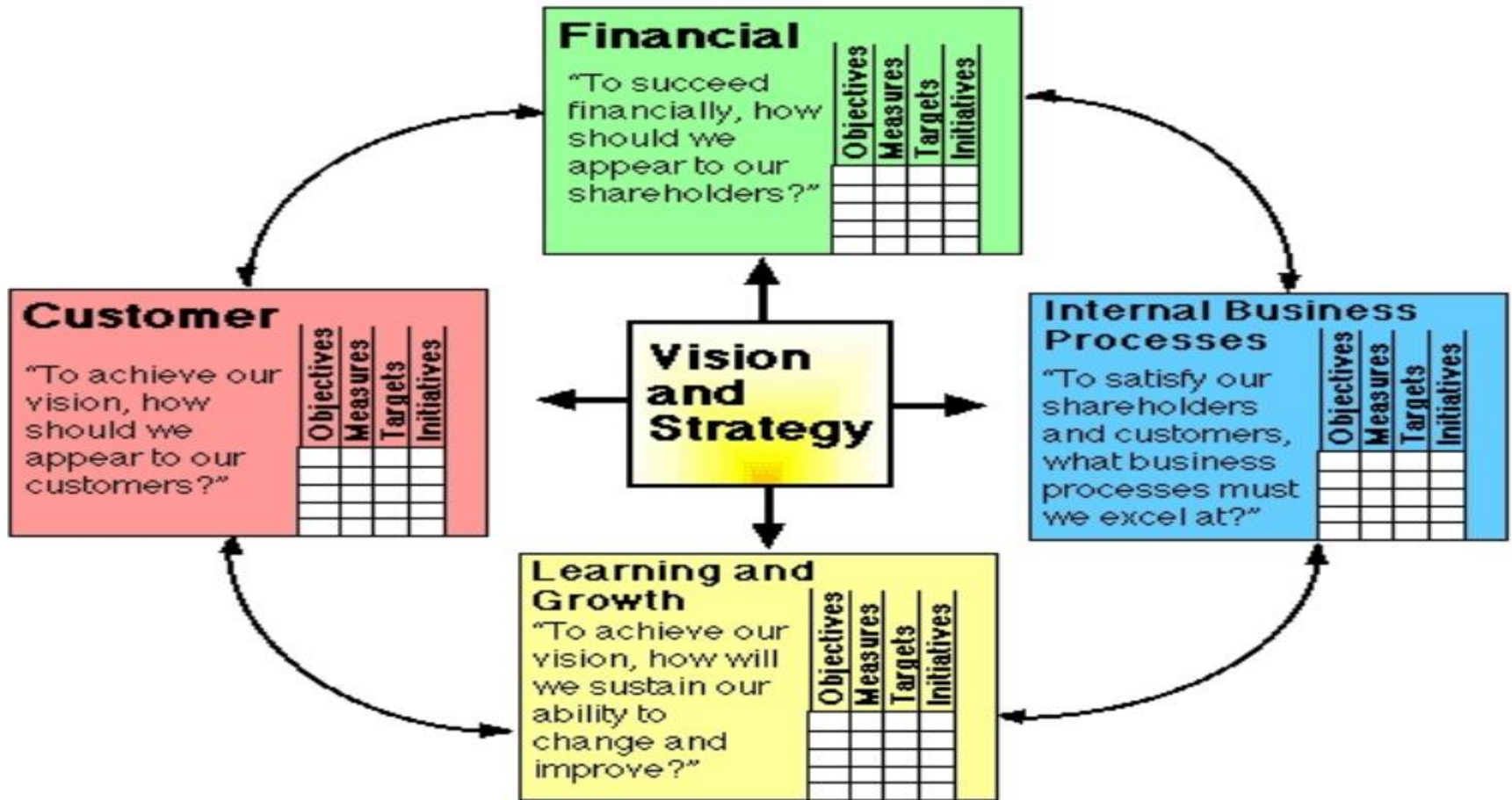
IT strategic planning/business systems planning
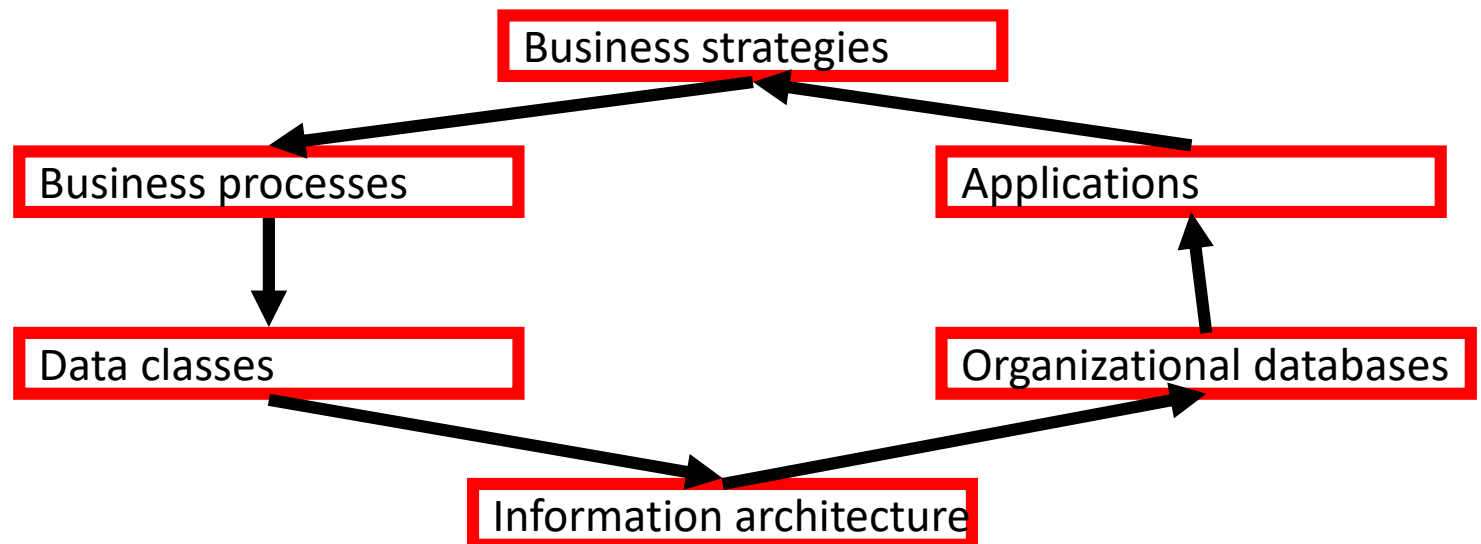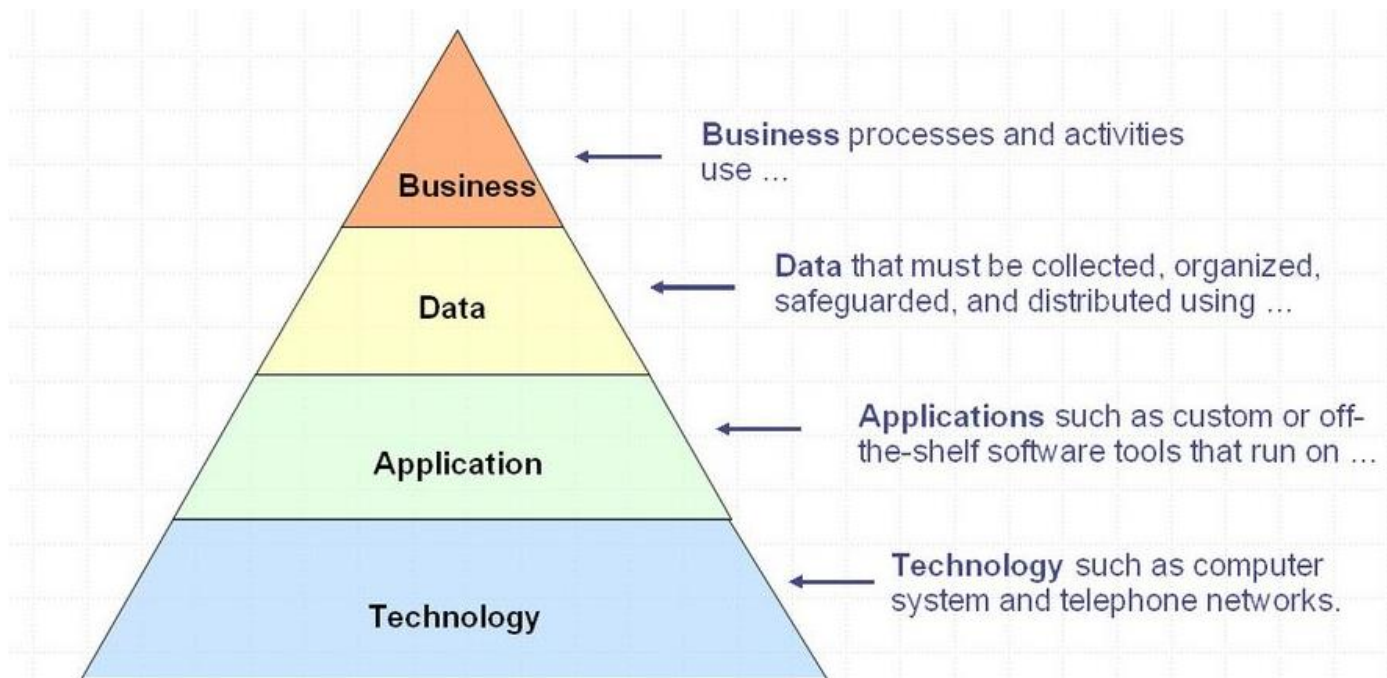

See also:

http://en.wikipedia.org/wiki/Business_system_planning#Analysis

Enterprise architecture

Same kind of methodology
http://edutechwiki.unige.ch/en/Enterprise_architecture_framework

Includes four pillars according to TOGAF method

Business processes and activities use …

Data that must be collected, organized, safeguarded, and distributed using …

Applications such as custom or off-the-shelf software tools that run on …

Technology such as computer system and telephone networks.

Business

Data

Application

Technology

Layers of enterprise architecture. Source: Niles E Hewlett (2006) via Wikipedia

ICT services management frameworks

- For enabling that the needs of business operations and ICT services meet
- There are several choices, but the most important frameworks are (Laan, 2017)
  - COBIT
    - Benefit: measures
  - DevOps
    - Benefit: works in the cloud era
  - ITIL
    - Benefit: Defining processes what do most exactly

ICT services management frameworks/COBIT

COBIT

ME1 Monitor and evaluate IT performance.
ME2 Monitor and evaluate internal control.
ME3 Ensure compliance with external requirements.
ME4 Provide IT governance.

PO1   Define a strategic IT plan.
PO2   Define the information architecture.
PO3   Determine technological direction.
PO4   Define the IT processes, organisation and relationships.
PO5   Manage the IT investment.
PO6   Communicate management aims and direction.
PO7   Manage IT human resources.
PO8   Manage quality.
PO9   Assess and manage IT risks.
PO10 Manage projects.

INFORMATION CRITERIA

- Effectiveness
- Efficiency
- Confidentiality
- Integrity
- Availability
- Compliance
- Reliability

MONITOR AND EVALUATE

PLAN AND ORGANISE

IT RESOURCES

- Applications
- Information
- Infrastructure
- People

DELIVER AND SUPPORT

ACQUIRE AND IMPLEMENT

DevOps

- If you develop a service, you must operate this
  - http://www.sjaaklaan.com/?e=172
    - "DevOps teams consist of developers, testers and application systems managers, and each team is responsible for developing and running one or more business applications or services"
    - Can applied for planning IT infrastructure for a company as well

ICT services management frameworks/ITIL (1)

- Think about the services needed by your business
  - For example teaching needs e-learning platform services or student management services
- In this review you can use the ITIL framework, which includes five phase
  - Service strategy
  - Service design
  - Service transition
  - Service operation
  - Continual service development

ICT services management frameworks/ITIL (2)

- With ITIL you can manage created enterprise architecture (EA), if it exists or you can use ITIL without EA (my personal view)
- Service strategy includes (at the basic level)
  - Service portfolio
    - Becoming services, current services and services to be removed to meet business needs
  - Services' financial management
  - Business relation management
  - Demand management
- Service design includes
  - Coordinating design activities
  - Service catalogue
    - All **current** services
  - Service level management
    - Desired/minimum requirements how service works
      - For example how quickly new learning spaces are set up for a course when a teacher asks for this

ICT services management frameworks/ITIL (3)

- Supplier management
  - Some services can be outsourced and the deals are needed with them. Better service is needed by external providers
- Capacity management
  - For example the capacity of a service should be enough for the service peaks
- Availability management
- Continuity management
 - How quickly a services recovers
- Security management

These points should be included in Service Designs Packages, which are the results of service design phase in ITIL framework.

After service design phase there will **service transition** and **service operation** phase

Continual operation improvement makes sure the compatibility with business operation needs
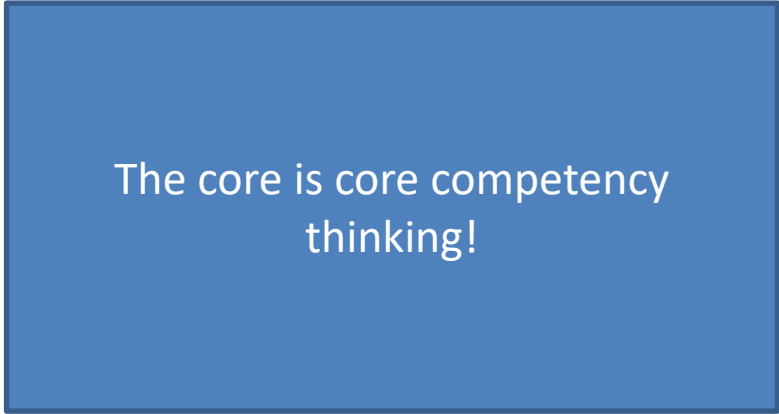
ICT services management frameworks/ITIL (4)

Summary:
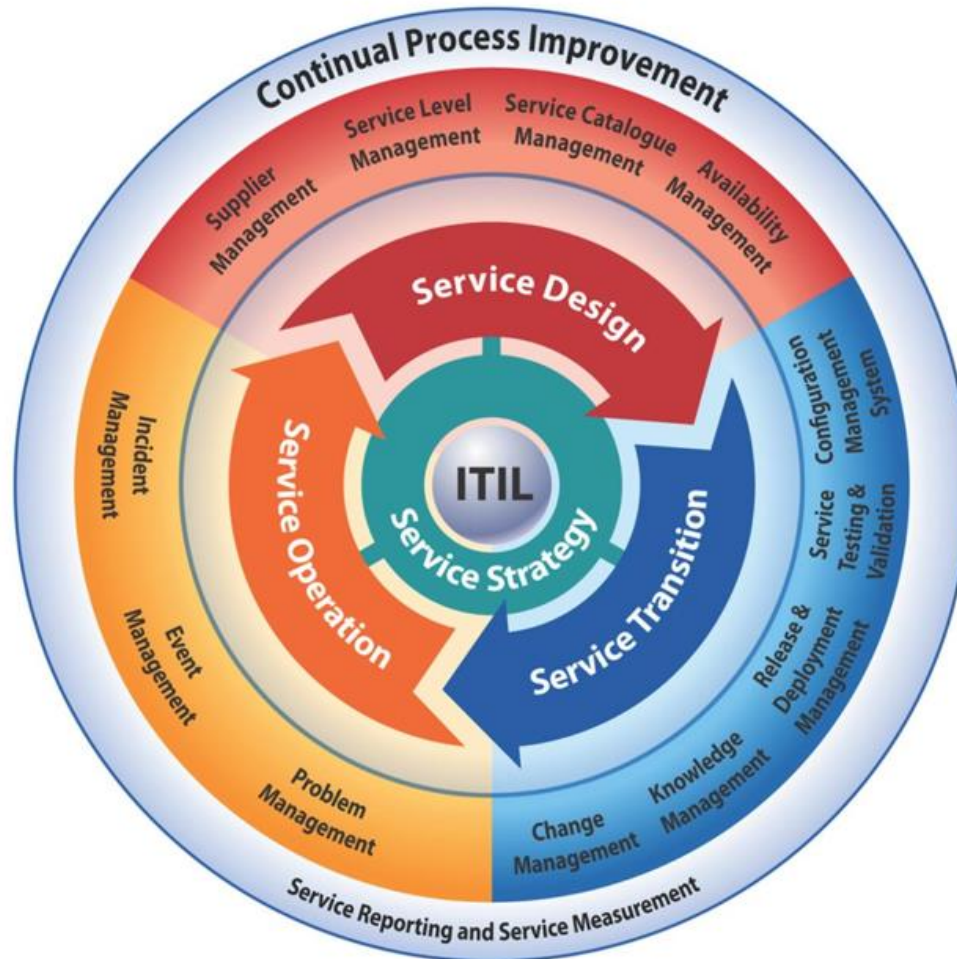
Outsourcing and offshore outsourcing (1/2)

- Benefits of outsourcing
  - Financial
  - Technical
  - Management
  - Human resources
  - Quality
  - Flexibility

The core is core competency thinking!

Outsourcing and offshore outsourcing (2/2)

- Offshore outsourcing
  - For example outsourcing software production to India
  - Can reduce IT expenditures by 15 to 25 percent within the first year
  - Risks issues
  - Some types of work are not good to be offshore outsourced

Cloud strategy

- Need for this. See
  - http://www.gartner.com/newsroom/id/3188817
  - In other review the growth continues as reported at Gartner's until 2020
- What are strategies issues in transferring IT to clouds?
  - Which workloads should be exported to the cloud
    - Why?
    - SaaS? PaaS? IaaS?
    - Legal issues
  - Which set of standards to follow your cloud computing
    - http://cloud-standards.org/wiki/index.php?title=Main_Page
      - The Cloud Standards Customer Council (CSCC)
      - An example about health care area recommendations
        - » http://www.cloud-council.org/deliverables/CSCC-Impact-of-Cloud-Computing-on-Healthcare.pdf
  - How to resolve issues of privacy and security in the cloud
  - How departments and business units will get new IT resources. Should they help themselves or should IT unit remain a gatekeeper

What managers should know?

- Aligning IT strategy and business strategy
- Organizing for effective planning
- Initiating IT strategy
- Undertaking the IT strategic planning process
- Dealing with outsourcing and offshoring including cloud computing options

Current and future IT trends

- should be looked at as building blocks in the implementation of IT strategies

  http://www.apmdigest.com/gartner-strategic-technology-trends-2018-1   (a list by Gartner for 2018)

Example about tools, which can help in these issues

- Firescope
  - http://www.firescope.com/Solutions/IT-Value/
  - https://www.youtube.com/watch?v=JofeO4Qaoo4
- Smartdraw for balanced scorecard planning
  - https://www.smartdraw.com/
- Google analytics and other analytics

Discussion exercise

- See next slides
- Select your topic with couple of your fellow students (2 to 5 students in one group)
  - You can also suggest your own topic, if you are interested in one theme
- Inform Pekka about your topic
- Then learn your topic with your group fellows and create a slide presentation
- Be ready present next time
- More instructions next time at the beginning

Topic 1: Balance scorecard software

- Go to https://www.webbsc.com/

And identify and describe the balance scorecard product BSC Designer online

Topic 2: Using business systems planning

- Think about a company or a public organization you know very well. Explain how business systems planning can be applied in the well-organized way

  - You can look at the list at http://en.wikipedia.org/wiki/Business_system_planning#Analysis and think about which one from each part could be applied in your company

Topic 3: Using ITIL

- Think about a company or a public organization you know very well. Explain how ITIL's service strategy and service design can be applied in the well-organized way

Topic 4: IT outsourcing services/case Accenture

- Visit https://www.accenture.com/us-en/outsourcing-services-index
  - Prepare a presentation that overviews one of the IT outsourcing services offered by Accenture
  - You can take one area from three choices
    - Application management
    - Infra outsourcing
    - Business processes outsourcing

Topic 5: IT offshoring/case

- Go to
- https://sourcingmag.com/offshoring-to-india-a-case-study-about-ketera-technologies/
- Read the article and in your presentation after introduction discuss the success factors in offshoring

Topic 6: Strategies in an organization running e-learning

- Go to https://jyx.jyu.fi/dspace/bitstream/handle/123456789/44843/978-951-39-5989-0_vaitos20122014.pdf?sequence=3

- Think about the strategies points which should be looked at when planning successful e-learning in an organization (for example in a school or a company)

Structure of your exercise presentation

1) Title slide

    – Names, emails and possible matrikel numbers

2) Introduction to your topic

- Slides 3...6

The last slides includes your summary. You summarize the main points and you can tell what you have learnt.