CA441: Business Process Management

Class: EC 4

Lecturer: Martin Crane
What are Business Processes anyway?

• **Def:** *A collection of interrelated work tasks, initiated in response to an event, achieving a specific result for the customer and other stakeholders of the process* (Sharp & McDermott)

• No Result – No Process!
  + *Customer Relationship Management* is not a process!
  + *Confirm Market Opportunity* is a process

• **BPM** = Management of Business Processes
A Simple Business Process Example

- Customer Buying Cup of Coffee
- Different Actors involved: Customer, Cashier, Chef
BPM Timeline

• **Origins in manufacturing (1700s):**
  + One person making an item from start to finish
  + Specialisation: division of labour (Adam Smith)

• **Analysis of Specialised Tasks/ 'Time & Motion' Studies (1900s)**

• **Work Process Flow (early to mid-1900s) (Frank Gilbreth):**
  + Disenchantment with the Assembly Line (1930s)

• **Workflow (mid-1970s):**
  + Document-based at a departmental process level

• **The Quality Era (1980s):**
  + Continuous Improvement (Total Quality Mgmt- Deming & Juran)

• **Business Process Reengineering (BPR) (1990s):**
  + Revolution V Evolution (Hammer & Champy)

• **Business Process Modelling (2000s):**
  + Multilevel, whole organization process integration & modelling
BPM Caveats....

• BPM has potential to transform organizations into more nimble, agile entities, leveraging both human & tech capital effectively.
  + But many BPM efforts spoiled by emphasizing technology, diagrams, or other pedantry.

• BPM is not primarily about these; its purpose is to improve business.
  + If business value of BPM effort is not demonstrable, start over!

• Processes are a view on organizations, but are an abstraction from reality & do not cover all aspects of a complex system.
  + Don’t mix up the map with the territory it represents.
BPM Caveats....cont'd

• BPM efforts require structure & methodology.
  + structure to guide efforts at different levels of abstraction (separating what from how), i.e. a level framework.
  + also need a structure to navigate among the processes of your organization, i.e. a process architecture.
  + need a methodology to retain & leverage what you have learned about managing & conducting BPM projects

• Shouldn't try to improve everything at once, but review the most important aspect (i.e. 'Pinchpoints') of an organization.
Relationship Between Concepts

**Business Process**
- Is defined in a Process Definition
- Is managed by a Workflow Management System
- Composed of Sub-Processes and Activities
  - Activities: Which may be Automated or Manual Activities
    - Manual Activities: (which are not managed as part of the Workflow system)
    - Automated Activities: During execution are represented by Work Items
  - Sub-Processes: Composed of Activities

**Workflow Management System**
- Used to manage and create Process Instances
- Include one or more Activity Instances
  - Activity Instances: Which include Work Items and Invoked Applications
    - Work Items: (tasks allocated to a workflow participant)
    - Invoked Applications: (computer tools/applications used to support an activity)

**Process Definition**
- (a representation of what is intended to happen)

**Process Instances**
- (a representation of what is actually happening)

**Activity Instances**
- (tasks allocated to a workflow participant)

**Invoked Applications**
- (computer tools/applications used to support an activity)

**SOURCE:** WFMC
Stages in Business Process Reengineering

This is where we will start with Workflow

1. Develop Vision and Objectives
2. Understand Existing Processes
3. Identify Process for Re-design
4. Identify Change Levers
5. Implement the New Process
6. Make New Process Operational
7. Evaluate the New Process
8. Ongoing Continuous Improvement

Source: Vakola et al. (1998)
Course Structure

Lectures

• Introduction - scope, objectives.
• Workflow Modelling (understanding current WF/ new WF design)
• Introduction to Business Process Redesign/Re-engineering
• Case studies in BPR in the Public & Private Sector
• National-Cultural Issues in BPR
• Factors which contribute to Success of Re-engineering Projects
• Socio-Technical Systems
• Workflow Tools/Workflow Management
• WF Management in Practice: Petri-Nets
• Business Process Modelling
Timetable

**Lectures**
- Monday  2 - 3pm  CG05
- Thursday  2 - 3pm  CG04

**Tutorials**
- Tuesday  12 - 1pm  QG27 as required
End-of-Semester Mark

Assignments 40%
Exam 60%

Assignments
+ Essay in form of a research paper & other assessment (BP Modelling Project)
+ Details to be announced later
Information

See my web page at:

http://www.computing.dcu.ie/~mcrane/CA441/

Research Papers/Lecture Notes/Assignments on various topics will be put on this page throughout the course
BOOK LIST

Jackson, Michael & Twaddle, Graham *Business Process Implementation* Addison Wesley.

Hammer, Michael & Champy, James *Reengineering the Corporation* Nicholas Brealey.


Other books and articles will be recommended for reading from time to time.