“Globalization is the greatest reorganization of the world since the Industrial Revolution.”

Most Western companies have but one real competitive asset left in this new world of abundant, low-cost supply sources—their customers.
Services science melds technology with an understanding of business processes.

Figure 1. Services represent a growing segment of the developed and developing worlds’ economies.
Web 1.0 was “read-only,”
Web 2.0 is “read-write,”
Web 3.0 will be “intelligent read-write-execute”
—in the Cloud
Business Process Management
Tearing Down Silos

THE Critical Business Processes

Human Interaction Management

The Cloud rEvolution
Situational Business Processes

The Evolution of IT
Business Process Management

Business Processes are HOW you deliver value to your customers.

Business Processes: the complete, end-to-end, dynamically coordinated sets of collaborative and transactional activities that deliver value to customers.

Business Processes are How Work Gets Done
Business Process Management (BPM)

END-TO-END BUSINESS PROCESSES

BUSINESS PROCESS MANAGEMENT

VALUE

CUSTOMERS

SUPPLY CHAIN MGT.

TRADING PARTNERS’ SYSTEMS

ERP SYSTEMS

HUMAN WORK

INVENTORY MGT. SYSTEM

HUMAN WORK

FULFILLMENT SYSTEM

ORDER MGT. SYSTEM

CUSOMERS
BUSINESS PROCESS REENGINEERING WITH CLIENT-SERVER TECHNOLOGY

INDUSTRY PROCESS REENGINEERING WITH THE INTERNET

Source: Death of ‘E’
Webs of Digital Relationships

Customer-Driven Value Webs and Business Ecosystems

Suppliers

Suppliers' Suppliers (Direct Procurement)

Core Competency Trading Partners

Customers

Customers' Customers

Value Threads: End-to-End Business Processes

Operating Resources Suppliers (Indirect Procurement)

Web Services

E-Marketplaces

BPUs

Source: mkpress.com
BPM: Conceptual Architecture

The Fourth Tier

Today’s Three-Tier Legacy Systems

ERP + RDBMS
“Because its purpose is to create a customer, the business enterprise has two—and only two—basic functions: marketing and innovation. Marketing and innovation produce results: all the rest are costs.”

The Heart and Soul of the Digital Commerce

*Customer-Oriented Processes*

-- all the rest are costs!
We’ve shifted from a Supply-Push to a Demand-Pull marketplace that operates in real-time.

The BUY-MAKE-SELL business model has shifted to a SELL-BUY-MAKE model.

As noted by the late management guru, Peter Drucker, the producer of products and services will cease to be a seller and, instead, become a buyer for the customer.

To compete in the 21st century, a company must shift from being a product-driven company to a becoming a customer-driven company that is laser-focused on its customers to the point where the company can anticipate customers’ needs, even before they do.
BUSINESS PROCESS MANAGEMENT (BPM)

The Fourth Tier Situational Processes

SOA / Web Services

Process-oriented systems (the fourth tier)

- Collaboration
- Custom processes
- Dynamic customer-oriented processes

ERP
- Supply chain management (SCM)
- Financial management
- Production management
- Shipping and logistics
- Sales force automation
- MRO procurement
- Inventory management
- Asset management
- Human resource management
- Order management

External trading partners’ systems

Legacy enterprise systems
Doing Business in the Digital Economy

[Diagram showing the value chain in the digital economy, including stages such as Vendor Management, Enterprise, Customer, and I-Market, with specific functions like T&E, Procurement, Logistics, Supply/Demand Planning, Manufacturing, Distribution, Services, Customer Support, Customer Relationship Management, and Customer Care.]

BUY  ADD VALUE  SELL
Companies spend 5 times more money on acquiring new customers as they do on retaining those they already have. Further studies demonstrated that: As a customer relationship with a company lengthens, profits rise. And not just a little. Companies can boost profits by 100% by retaining just 5% more of their customers.
What is a Service Process?

...a service process is a series of states involving the decision-making process and experiences of the customers [Mazur 1993c].

"Service processes present unique challenges. They are complex ... each transaction is in itself a new 'product.' Services also contain both usability and emotional components."

When we plan a service process, we tend to look at things in terms of what the provider must do to complete the service process. We tend to think in a logic that is provider-oriented.

The result is a process that is inconvenient and frustrating to the customers, a service transaction that failed to complete, and defection of once willing customers."

- Glenn Mazur, executive director of QFD Institute

Customer is a co-producer of value.
Characteristics of Service Processes

**Intangibility**
May be some combination of both intangible and tangible results or processes

**Heterogeneity**
Outcomes vary from one knowledge worker to another

**Simultaneity**
Production and consumption may coincide

**Complex Adaptive Systems**

**Perishability**
May be consumed immediately
Can’t be stored
Once the event or time has passed, the opportunity is gone forever
Work 2.0 and Human Interaction Management

Work 2.0

2.0 is all the rage: Web2.0, Enterprise2.0, Office2.0, the list goes on. The pundits are out in full force proclaiming the democratization of the Internet and the wisdom of crowds. Blogs, wikis, and all manner of social networks are set to bring unprecedented transparency to the business world, giving customers a say in just about everything. No more one-way messaging from company to consumer. Secret R&D labs are dissolving in favor of open innovation. Finally, we have the executable Internet some 20-plus years after Sun Microsystems’ John Gage coined the phrase ‘The Network is the Computer’

Book chapter: www.peterfingar.com/Work2-0.pdf
Work 2.0 and Human Interaction Management

Communication 'With Implied' Collaboration in a Web2.0 World (A Real Mess)
Work 2.0 and Human Interaction Management

Explicit Collaboration Via a Human Interaction Management System

Source: www.mkpress.com
Work 2.0 and Human Interaction Management

Modern Businesses Depend on Multiple and Disparate IT Systems

Source: www.mkpress.com
Work 2.0 and Human Interaction Management

The Relationship Between HIMS and Heritage IT Systems

Source: www.mkpress.com
Work 2.0 and Human Interaction Management

Evolution of Process Management

- Workflow Management
- Business Process Management
- Human Interaction Management

‘Contracted Process’

‘Coordinated Process’

Work 2.0 and Human Interaction Management

If technology is to be used to support human interactions, collaboration can no longer be *implicit*. It must be *explicit* if it is to be brought under management control. For this to happen, five basic principles are needed:

**Connection visibility**: to work with people, you need to know who they are, what they can do, and what their responsibilities are as opposed to yours.

**Structured messaging**: if people are to manage their interactions with others better, their communications must be structured and goal-directed.

**Support for knowledge work**: organizations must learn to manage the time and mental effort their staff invest in researching, comparing, considering, deciding, and generally turning information into knowledge and ideas.

**Supportive rather than prescriptive activity management**: humans do not sequence their activities in the manner of a procedural computer program. There is always structure to human work, sometimes less and sometimes more, but it is not the same kind of structure that you get in a flowchart.

**Processes that change processes**: human activities are often concerned with solving problems, or making something happen. Before you can design your new widget, or develop your marketing plan, you need to work out how you are going to do so – which methodology to use, which tools to use, which people should be consulted, and so on. In short, process definition is an intrinsic part of the process itself. Further, this is not a one-time event – it happens continually throughout the life of the process. HIM requires a major shift from “information processing” to “commitment processing,” where participants negotiate and commit to next steps. The process itself is *emergent*, not predefined.
HIMS must incorporate the underlying computer and social sciences that reflect how humans actually interact together. They must have the underpinnings of:

- **negotiate-and-commit speech acts**, so that agreements, not just information can be tracked, and so that human-driven processes can be redefined as they emerge/evolve over the lifetime of the process,
- **role activity theory**, where human interactions, not computer interactions, can best be modeled,
- **distributed computing techniques** to cope with multiple / dynamic asynchronous communication channels, allowing a given human-driven process to be redefined as participants in that process drop in or out,
- **multi-agent systems**, where collaborating software agents use their own unique business rules and knowledge sources,
- **cognitive science models** (such as REACT/AIM) that reflect how knowledge workers think and act,
- **choreography methods** for handling interactions with process participants, including stable, operational processes in heritage IT/BPM/Workflow, and
- **private information spaces**, where versioning and shared access are under the control of the participants (peer-to-peer) that own the information, work objects and even processes.
Human Interaction Management System

Source: http://human-interaction-management.info
CitiGroup Global Markets
Industry: Financial Services. Application: Multiple Processes

ConAgra Grocery Products
Industry: Consumer Products. Application: Product Development

Credit Suisse

Ford Motor Company
Industry: Manufacturing. Application: Warranty Services and Distribution

GE Plastics
Industry: Manufacturing. Application: New Employee Assimilation

Lockheed Martin
Industry: Manufacturing. Application: Quality Assurance

Lubrizol Corporation
Industry: Manufacturing. Application: Custom Product Development

Migros Bank
Industry: Financial Services. Application: Multiple Processes

Navistar Corporation – International Truck and Engine
Industry: Manufacturing. Application: Engineering Change Control

R.R. Donnelley & Sons

Sandia National Laboratories
Industry: Government. Application: Security and Administration

Swiss Reinsurance Co.
Remember that delegation is the separation of promise from performance. Since John doesn’t know Mike, he wants the promise from Bea, Continental’s Regional representative. But, since Bea isn’t responsible for custom pricing and production scheduling, she has delegated performance to Mike by asking him to commit to pricing and delivery dates.

We’ve found, over many years, that delegation is vastly superior to mere transfer of work. Customers are far more loyal to a company when they know that a commitment has been made and that the person who has made it is accountable for keeping his or her promises.

Speech Acts: Negotiate and Commit

From Information Processing to Commitment Processing
Your extended company is a Complex Adaptive System
In Service Critical End-Customer-Facing Processes, the idea of a buyer who can specify everything in a contract that the supplier should do is outdated, naive, counter productive and even harmful for business.

A viable alternative in these settings is the concept of **Collaborative KPI’s**.

---

**Collaborative KPIs**

- Focus on Cost: Quality goes down
- Focus on Quality: Cost goes down

---

As bundled Offerings of Products and Services will become commonplace,

As Service Supply Networks mushroom.

**Willem van Oppen**

CPO, KPN, The Netherlands
Willem van Oppen

Came to KPN from the manufacturing industry where the **bullwhip effect** is well known, but even more accentuated in services industries where processes are less likely to be defined and a single service may require multiple, unique processes.
Customer-Driven OPEN INNOVATION
And CO-CREATION of Value
Demand PULL vs. Supply PUSH
Negotiate and Commit

Instead of being a ‘seller to’ your customers,
you become a ‘buyer for’ your customers!
DOT.CLOUD
The 21st Century Business Platform

PETER FINGAR

www.mkpress.com/cloud
Yesterday, the Internet — today, the Intercloud.
A taxi system operates at “the edge of chaos”

Order
Centralized control

Edge of Chaos
Semi-autonomous agents acting
in accordance with simple rules
朝着 a common goal

Chaos
Everybody doing
their own thing
because taxi cab organizations are complex adaptive systems ... like your business!
From Command-and-Control
To Connect-and-Collaborate

Transparency becomes the invisible hand of management control
Situational Application Platforms give you the infrastructure to build Situational Business Processes where there is uncertainty and change.
Situational Business Processes in the Intercloud

Read: Cloud Oriented Business Architecture:  http://tinyurl.com/p4q3jf
In the Cloud
the world shifts from using
Information Technology (IT)
for transaction and information management
to a far more organic
Business Technology (BT)
for collaboration and *interaction* management.

Read: *Business Platform in the Sky*  [http://tinyurl.com/mvaklz](http://tinyurl.com/mvaklz)
The Big Shift from Information Technology (IT) to “Organic” Business Technology (BT)

Source: PowerInTheCloud.com
**Customer-Centric Applications**

- Is your web interface with your clients customized to the specific needs of each client?
- When your client interacts with your organization, do they feel that they are special to you – that you understand their needs and have catered specifically to them?
- Even better, can they (or you) customize their interface with your organization to meet their needs?

**Customer Self-Service**

- Can your customers do the following without interacting with your employees:
  - Get an estimate for potential services or products?
  - Place their own orders?
  - Check their order status?
  - Check their invoice status?
- Are your employees asking customers for information that they should be able to pull up from your systems?
- Are your employees asking customers for information that the customers themselves could enter over the web?
- Do you have an easy way for your clients to submit ideas to your organization on how you can better serve them?
- Do you automatically send out questions and follow-ups to your clients to get continuous feedback?

Source: PowerInTheCloud.com
Because something is happening here
But you don’t know what it is
Do you, Mister Jones?
—Bob Dylan, ‘Ballad of a Thin Man’

It’s an exciting and potentially career-altering notion for CIOs: that the tools and processes they use to manage IT can be used to manage business processes.
The implications of Web 2.0 and the Cloud for IT professionals are profound. Companies don’t want more IT; they want business results. If companies are to embrace Web 2.0, they will need a far greater contribution from IT than ever before; but that contribution will be of a substantially different nature.

To embrace Web 2.0 and the Cloud, a system-wide view of the company is needed, and IT professionals have such view, far more than the marketing, legal, financial and other specialists in the firm.

Building the process-managed, real-time enterprise will demand innovation and rigorous systems thinking from a new generation of IT professionals, stressing some to their limits as the process paradigm shift takes hold.

It’s not your father’s IT shop any more, and business process management skills now outweigh yesterday’s technical skills.
“My guess is that over the next few years, many people working in IT will face a simple choice. One option is to get involved with business processes in a much more explicit way. The other? Pack your bags and move to Bangalore, India, because that is where your job is going to go.”

--David Chappell

Application Development Trends
“Traditional practices of technology life cycle ownership, where the organisation buys, configures, manages, optimises and retires technology for its own use, are being questioned as to their efficiency and effectiveness, so alternative delivery models for technology and services are emerging,”
-- Gartner.

“Alternative delivery and acquisition models include new channels for acquisition, use and payment. In some organisations, alternative models involve only users and business units, bypassing the IT function.”
-- Gartner.

Why is Consumer IT so simple?
Why is Enterprise IT so complex?

“It’s Recovering Complexaholics,” CW
“Hello, my name is Mike, and I’m a recovering complexaholic. I’m interested in new ways to get things done.”
-- Michael Hugos, Award Winning CIO and Author
Agility is ALL in the 21st Century

The Greatest Innovation Since the Assembly Line

Powerful Strategies for Business Agility

Drive to Perpetual Beta

<table>
<thead>
<tr>
<th>Year</th>
<th>Cycle Time</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td></td>
<td>90 days</td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td>60 days</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>30 days</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>14 days</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td>7 days</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>Same day</td>
</tr>
</tbody>
</table>

Source: Gartner

Source: www.mkpress.com
How do you DO Agility?

21st Century Business in the Cloud

WOA
Built for Change
Designed for People

BPM

SOA

HIM

Infrastructure Modernization

20th CENTURY BUSINESS
--Legacy IT Assets--
The role of the CIO is at a critical point of change. CIOs are "going to step up or they're going to step down. They cannot be where they are.”

http://www.informationweek.com/story/showArticle.jhtml?articleID=203101647
... maybe they'll just stay where they are, consolidating data centers, maintaining applications, and managing server boxes, instead of leading business-process change through technology innovation. That change agent is a role that will surely be filled by someone. But if not by the CIO, then by whom?
Are You ready for Extreme Competition?
BT Center of Excellence for all things Cloudy

Google: “bpm” + “center of excellence” + “case studies”
Looking for a Cookie Cutter Approach, a Check List?
What to do?

1. Innovate, from the outside-in.
2. Don’t just reinvent your company, reinvent your industry or invent a new industry (iTunes).
3. When pursuing emerging business opportunities, start small, and set intervals for go, no-go check points.
4. When breaking new ground, pay as you go, learn as you go.
5. Use Return on Opportunity (ROO) calculations focused on benefits instead of traditional financial ROI calculations only.
6. Tap the Cloud for IT infrastructure investments that otherwise couldn’t be made to pursue emerging business opportunities.
7. Tap the wisdom of crowds for open innovation.
8. Replace functional management with process management.
9. Adopt business process management systems, but even more important, become a process-managed enterprise.
10. Adopt service-oriented technology architectures.
11. Become a service-oriented enterprise.
12. Adopt Web 2.0 tools and methods.
13. Utilize a business operations platform in the Cloud to support your entire multi-company value chains.
14. Fire your managers and employees; then rehire them as associates, as champions, as sponsors, as peers.
17. Become a learning organization to assure that your new way of doing business is assimilated throughout your workforce.
Andy Mulholland and his colleague, Ron Tolido, serve up a number of predictions that can stimulate thinking about the Cloud and the future of business:

1. *Deliberately Disconnected.* Confronted every day with an ocean of information and stimuli, we will more and more actively seek to disconnect ourselves from the madness whenever we need.

2. *Cisco will be KLM–Air France’s biggest challenger.*

8. “Trust” is the new version of “Control.”

15. *The end of the user* … instead we all become “participants” of systems, actually becoming one with information technology.

16. *Death of the money making core product* … businesses will make creative use of Web 2.0 to sell ancillary products and services that generate a much better margin (freemium).

18. “Open” is the new “Closed.” Open up your assets to the outside world and find innovative ways to collaborate and co-create.
And, amid all the buzz, we’ll leave technology every now and then for what it is. That’s a lot to look forward to. There’s no better timing than right now to contemplate your plans for the future.

Meditate more. Pick up Chinese boxing training again. Write a book about Slow IT. You know, just the basic, ordinary stuff we can all relate to.
Mulholland: To get things started, here is my first list of IT activities that people may want to plan for:

1. Build your own mashups
2. Become a Togaf 9 certified architect
3. Give and get one OLPC laptop
4. Use a cloud application
5. Blog about your project
6. Install Ubuntu Linux on a PC
7. Start a community on Ning
8. Get a personal KPI gadget on your desktop
9. Try an Android smart phone
10. Use social networking tools within the IT department
The Chinese word for “crisis” consists of two characters: “danger” and “opportunity.”

It’s a great time to be a great CIO!
It’s time to get your head into the clouds.
Systems Thinking: The CORE Core Competency

Howard Smith and Peter Fingar
Thank You

pfingar@acm.org
www.PeterFingar.com
www.mkpress.com
twitter.com/peterfingar