

The Future Of Work

**HIM, GOOD, the HIMS and
HumanEdj**

The Future Of Work

- **The problem**
- The solution
- Case studies

Cost of human interactions

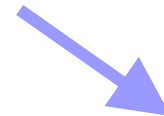
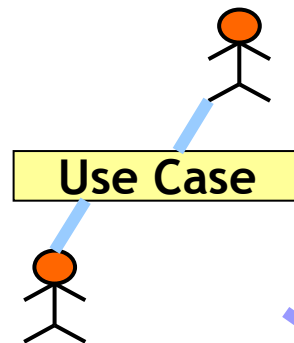
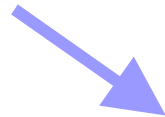
- 28% of knowledge worker time wasted
 - Cost of interruptions = \$840/worker/month
 - “Information Overload”, Basex, 2007
 - 175 million knowledge workers in US & Europe
 - \$650 billion per annum wasted in US alone
 - Global cost perhaps \$2 trillion per annum
- True cost even higher
 - Productivity? Depends on “flow”
 - Sustainability? Leave a structured audit trail
 - Effectiveness? Align work with organizational goals
- Impossible to connect-and-collaborate ...

Connect and Collaborate

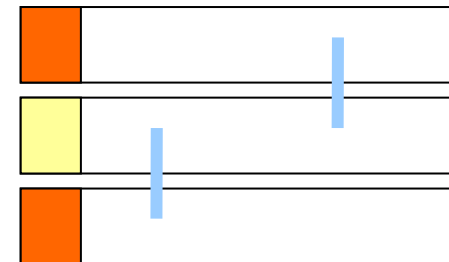
- Share services dynamically
 - Much more than outsourcing ...
 - **Flexible re-use of people and teams between organizations**
 - Get the best work for the lowest price
 - Leverage your human capital
- The fifth economic offering
 - Much more than Web site personalization or free Wi-Fi in a coffee shop ...
 - **Transformative customer experiences**
 - Add value to your customers' own processes
 - Build lasting customer relationships

Evolution of process theory

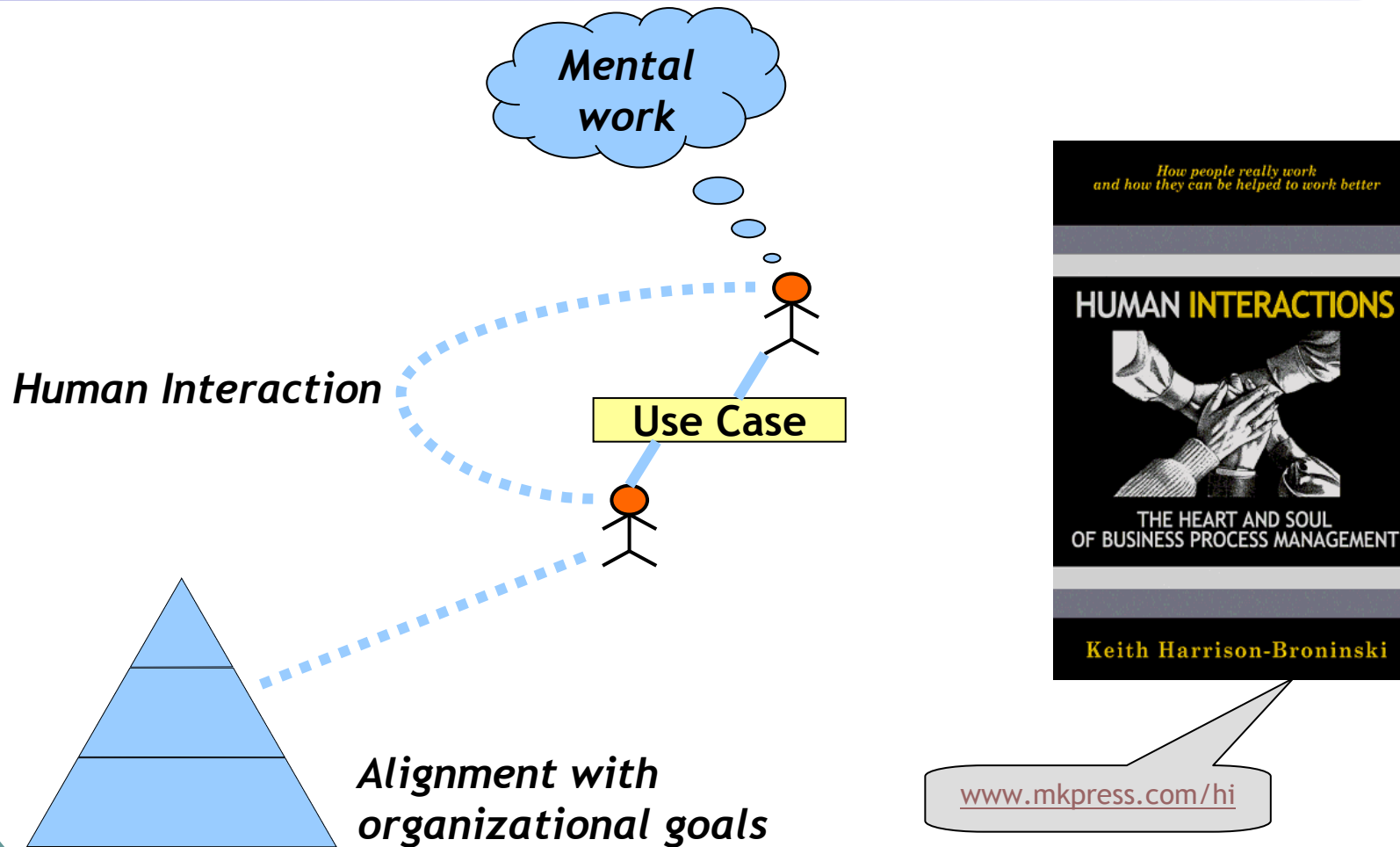
Scientific Management



UML, BPMN, etc



What is missing?



Where is this important?

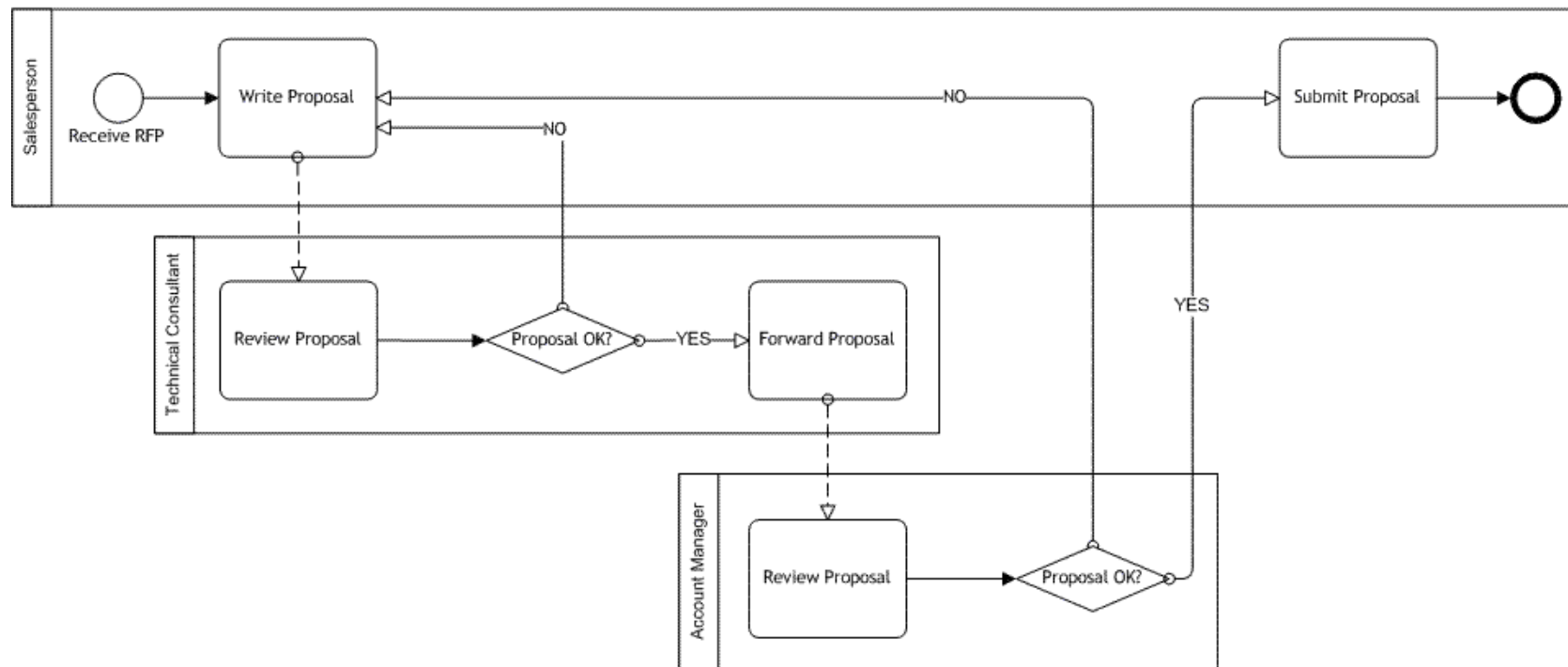
- Certain types of work
 - Management
 - Product/service development
 - Complex sales
- Certain sectors
 - Healthcare
 - Law enforcement
 - Creative industries
 - **Anywhere that humans innovate solutions**
- Especially if the work crosses boundaries
 - **Multiple management levels**
 - **Multiple organizations**

The Pareto principle

- 20% of “exceptions” = 80% of the costs
 - And customer failures at every level ...
- www.thetrainline.com
 - “Unexpected demand” causes season ticket double-charging
 - Refund impossible via Web or customer service
- Hurricane Katrina
 - Delayed response to New Orleans flooding led to deaths from thirst, exhaustion and violence
 - Mismanaged despite accurate forecasts and abundant lead time

Flowchart techniques don't help

Respond to Request for Proposal



Everything important is missing

- **Setting up the process**
 - Goals and responsibilities
 - Skills, experience and personality types
 - Policies and regulations
- **Doing the process**
 - Criteria
 - Resources
 - Sources
- **Evolving the process**
 - Work
 - Help
 - Interaction

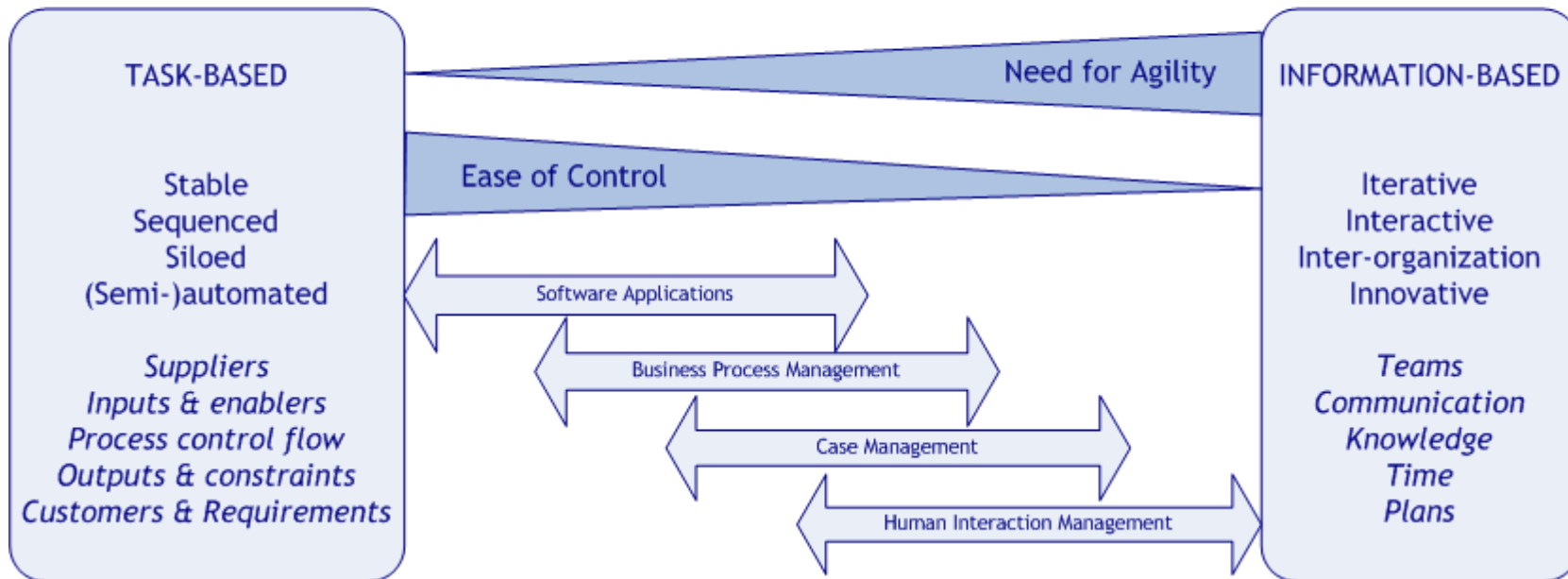
The Future Of Work

- The problem
- **The solution**
- Case studies

The Business Process Spectrum

The Business Process Spectrum

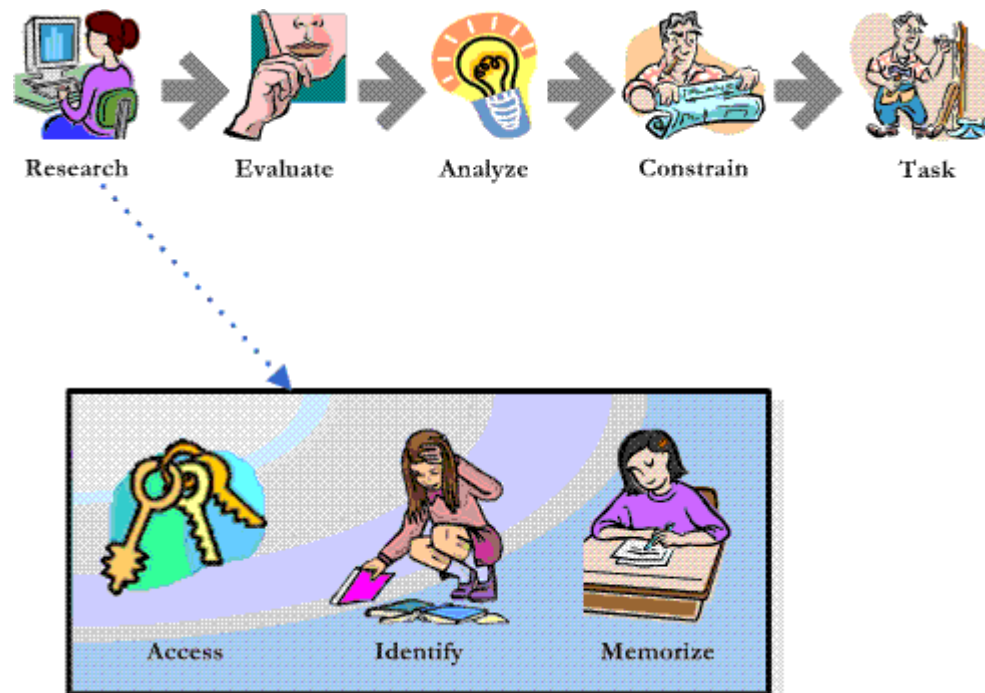
www.human-interaction-management.info



Human Interaction Management

1. Team building
2. Communication
3. Knowledge
4. Empowered Time Management
5. Collaborative Real-Time Planning

HIM Patterns (example)



HIM Quick Reference Card

<p><u>How to Work</u></p> <p>R – Research E – Evaluate A – Analyze C – Constrain T – Task</p>		<p><u>How to Learn (Research)</u></p> <p>A – Access I – Identify M – Memorize</p>		<p><u>Work and Workers</u></p> <p>Human Driven Work or Mechanistic Work</p> <p>Interaction Worker or Independent Worker</p>		<p><u>Conversations</u></p> <p>For Possibility <i>Do we want to work together?</i></p> <p>For Disclosure <i>On what basis?</i></p> <p>For Action <i>Request/Promise</i> <i>Offer/Accept</i> <i>Report/Acknowledge</i></p>		<p><u>Levels of Control</u></p> <p>Strategic <i>External to work process</i> <i>Overall sponsor</i> <i>Defines key deliverables/metrics</i></p> <p>Executive <i>External to work process</i> <i>Accountable/informed /consulted</i> <i>Refines deliverables</i> <i>Defines key Roles/Interactions /Activities</i></p> <p>Management <i>Internal to work process</i> <i>Responsible</i> <i>Refines initial process</i> <i>Facilitates/monitors process and its evolution</i></p>	
<p><u>Users</u></p> <p>Identity Physical Location Virtual Location Relationships User Type Capabilities <i>(knowledge and experience)</i> Organizational Authority Characteristics</p>		<p><u>User Characteristics</u></p> <p>Action <i>Shaper</i> <i>Implementer</i> <i>Finisher</i></p> <p>People <i>Coordinator</i> <i>Teamworker</i> <i>Investigator</i></p> <p>Cerebral <i>Plant</i> <i>Evaluator</i> <i>Specialist</i></p> <p>Leader <i>Manager</i> <i>Executive</i> <i>Strategist</i></p>		<p><u>Activities</u></p> <p>Units of work Include one or more Tasks</p> <p>Atomic <i>Transactional:</i> <i>Failure of any Task =></i> <i>undo of all Tasks</i></p> <p><u>States (Rules)</u></p> <p>Pre-Condition Post-Condition</p>		<p><u>Roles</u></p> <p>Goals Responsibilities Interests and Agreements Information (private) References to other Roles Capabilities (powers and permissions) Process Authority</p> <p><u>Interactions</u></p> <p>Asynchronous Exchange of Information Exchange of Intent (Speech Acts)</p> <p><u>Interaction Patterns</u></p> <p>For deciding on next steps <i>Agreement</i></p> <p>For doing work <i>Collaborative Transaction</i></p>		<p><u>Speech Acts</u></p> <p>Intended Manner <i>(aka Illocutionary Force)</i> <i>Assertive</i> <i>Directive</i> <i>Commissive (Promise, Intention)</i> <i>Expressive</i> <i>Declarative</i></p> <p>Intended Effect <i>(aka Performative)</i></p> <p><u>Resources</u></p> <p>Offline / online Information within Role Atomic – digital Shared by Role</p>	

The Future Of Work

- The problem
- The solution
- Case Studies

HIM for Productivity: Praxis HIS

- Error rate on large-scale safety-critical development project out of control
- Applied HIM techniques via fault management labs
- **Doubled** developer productivity
 - On 2 separate projects

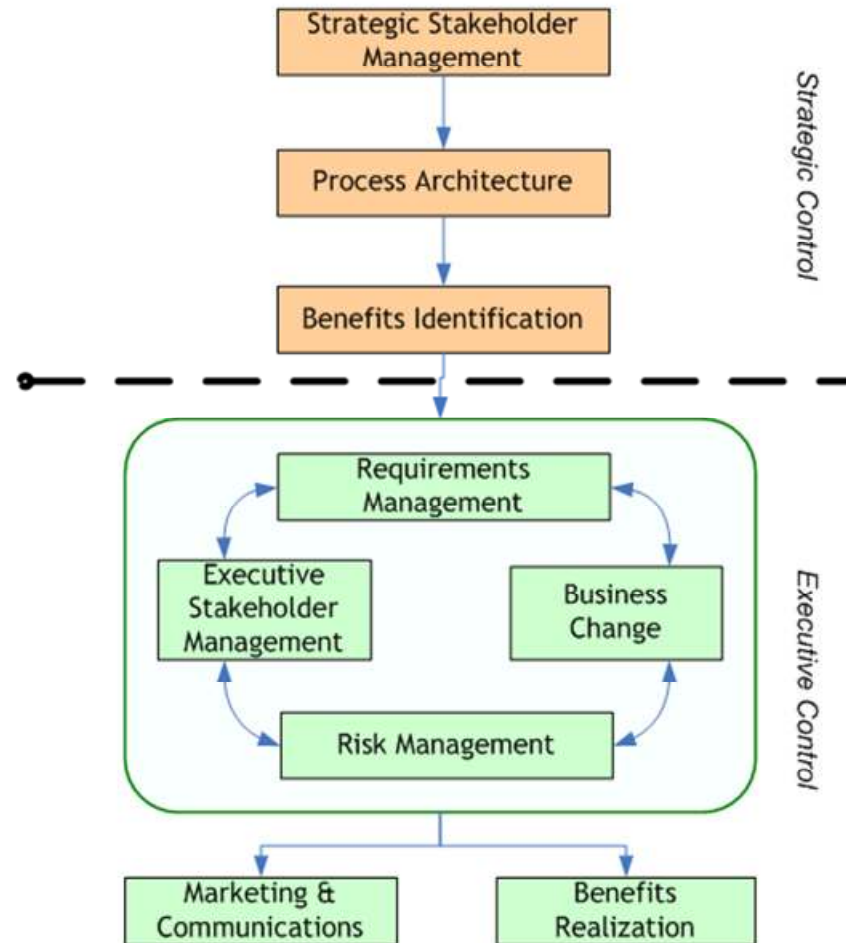
HIM for Effectiveness: Sun Microsystems

- Business Systems Group spent months creating set of process documents
 - Never completed
 - Too complex to use
- Drew up single-page HIM diagram
- Re-engineered all internal processes in **2 weeks**
 - Including implementation

Goal-Oriented Organization Design

- Structuring Business Change
 - HIM = principles and patterns
 - For large-scale work, also need a **methodology**
 - For business change **governance**
- **Goal-Oriented Organization Design (GOOD)**
 - Ensure work meets **stakeholder needs**
 - Deliver into a **business-as-usual environment**
 - Maximise **benefits** from outcomes
 - Minimize **costs** of delivery
- Proven on major UK government programme

High-Level Roles in GOOD



The HIMS

	Collaborate	Work	Manage
Software for Knowledge Work	Decentralized, cross-boundary collaboration Deploys on any platform or device Purposeful, context-aware messaging Allow colleagues to negotiate next steps Change process definitions on-the-fly Prioritize messages Context-aware voice calls and Instant Messaging Integrate with corporate email Automatically file email attachments Manage process participation on-the-fly Define software for a process using a diagram Validate process definitions Generate standard process skeletons Reuse template processes Zero-coding forms to enter and maintain data Define and apply business rules Define tasks using a scripting language Prioritize tasks Recognize and support purely mental work Adapt tasks to changing circumstances	Provide version control for documents and data Support local and/or remote workspaces Integrate with users' calendars Facilitate management controls Maintain audit trails for each process Provide archive and purge facilities Integrate with business intelligence Track progress within each process Call Web services Allow custom functionality via plug-ins	
Document and Data Management			
Shared Web Workspaces <i>e.g., Groove, Collanos</i>			
Case Management <i>e.g., EMC, Global 360</i>			
Document / Content Management <i>e.g., Alfresco, SharePoint</i>			
Message Management			
Language-Action Perspective <i>e.g., ActionWorkflow, Demo</i>			
Role-Based Collaboration <i>e.g., E-CARGO</i>			
Email Add-ons <i>e.g., Xobni, Nelson</i>			
Project Management			
Project Planning <i>e.g., BaseCamp, Zoho</i>			
Project Control <i>e.g., Primavera, 4Projects</i>			
Work Stream Management			
Flowchart Tools - Wiki based <i>e.g., Itensii, Makna</i>			
Flowchart Tools - Email based <i>e.g., Prolify, ActionBase</i>			
Flowchart Tools - State based <i>e.g., FLOWer, Cordys</i>			
Workflow / Human-centric BPM <i>e.g., Lombardi, Coghead</i>		Routine work only	Routine work only
Human Interaction Management			
Human Interaction Management System <i>HumanEd</i>		All forms of work	All forms of work

Why use a HIMS

- Integrate human work with automated workflows
 - Define a plan of action
 - Based on one or more templates, if required
 - Use the plan to do the work itself
 - Via a Web browser
 - On any Web-enabled device
 - Collaborate across boundaries
 - Management levels
 - Partner organizations
- Manage work in real time
 - See what is actually going on, right now
 - Agree plan changes **as part of execution**
 - Under the control of the Plan owner

HumanEdj

- Reference implementation of a HIMS
 - 2 years in beta
 - Trialled by hundreds of organizations
 - Now available as a [Web application component](#)
- Customers build platforms based on HumanEdj
 - Web
 - Desktop
 - Mobile
- Example from the media sector ...

Video clip creation

- Excerpts from sports events
 - Created during event itself
 - Distributed in multiple languages
 - To TV stations, Web sites, mobile devices, etc
- Highly collaborative and time-critical
 - Commentary needed in 16 languages
 - Ideally each clip complete in under 2 minutes
 - Must never take more than 6 minutes
- Demonstrable improvement from day 1
 - Users required no training
 - Or even documentation
 - Productivity up 400% during user acceptance testing

Using HumanEdj Plans

- Plans are created from template and distributed automatically
 - By an owner who then supervises the work
- Stages control the operation of a Plan
 - A Stage can be started, finished, cancelled, or declared in error
 - In negotiation between workers and the Plan owner
- Deliverables also have statuses
 - That can be negotiated between workers and the Plan owner

Managing HumanEdj Plans

- Plans can be changed at any time
 - Stages, Roles, Deliverables, and Activities can all be added, removed or updated
- Plan owners can be changed at any time
 - To another person already in the Plan or to someone new
- Hierarchy of Plans provides executive control
 - Creation and usage of Plan templates is done via higher-level Plans

Web resources

- **HIM, GOOD and the HIMS**
human-interaction-management.info
- **HumanEdj**
rolemodellers.com

Thanks for listening.