

Output from discussion group on:
Services science: a new academic field
that needs to arise

Herb Simon on Computer Science

- “Computer science is an empirical discipline... The symbolic system and the computer's ability to manipulate and store these symbols is fundamental to its value.....
- “A second factor that makes the computer valuable is its ability to solve a problem through the process of heuristic search. A basic procedure is to systematically modify symbolic expressions until a solution is reached. The computer further shows intelligence by only generating solutions that show promise rather than evaluating any possible solution.”

Acceptance speech for Turing Prize, ACM, 1976

- My claim: IBM should lead the way again, this time in Services Science

Breakout #3: Issues and Methodology

Some of the issues we grappled with:

- What is within it?
- What is outside of it?
- What is a working definition?
- Is it needed?
- What are the major issues?
- What should we do next?

Methodology

- Broke into 3 subgroups
- Shared subgroup output
- Discussed as large group

Subgroup 1

- Came up with a huge list of things included
- Came up with small list of things outside
- Came up with descriptors toward definition, e.g.:
 - Agency
 - Involves some transformation
 - Labor intensive
 - Knowledge intensive
 - Relationship centered; socially negotiated
 - Reciprocity
 - Interdisciplinary
 - High competence; selling human competence

Subgroup 2

- What is the scope for new knowledge to increase productivity, quality, differentiation in services?
- What methodologies are needed?
 - Ethnography
 - User-centered design
 - Requirements engineering
 - Information systems
- Levels of analysis for services research:
 - Tasks
 - Teams
 - Enterprise/organization
 - Industry-wide

Subgroup 2 (continued)

- What are the representational formalisms for presenting analyses?
- Services as “manufacturing right in front of the customer”?

Subgroup 3

- Tried to define the role of the professional in this discipline as:
“Expert in the use of knowledge and expertise in designing and implementing Business Solutions to new and existing problems”
- Individual capabilities include:
 - Generalist with multiple skills in technical, business, and social areas
 - Strong analytical skills
 - Relationship and consulting skills
- Academic curricula can be created from existing programs

What are the research/business issues?

- What is it? Can we define it?
- Is it separate from other disciplines?
- What disciplines is it related to?
- Do we need a new discipline or should it be an interdisciplinary approach using existing disciplines?
- What are the methodologies?
- How do we measure it? What are the critical measures of success?
- Who should be involved in its development?
- Need deeper exploration of the body of knowledge

Some preliminary hypotheses

- Interdisciplinary
- Probably not a separate field
- Perhaps a curriculum or set of courses
- Participatory design/highly contextual – Shouldn't be designed by academic institutions, but should be jointly designed with business and government
- There is a lot of work to do before this can be implemented
- Must be cross-industry

What activities can we carry forward after the symposium?

- We need detailed, published studies on adoption of services offerings
- Taxonomy work – What is it? Where does it fit? What phenomena is being studied?
- Explore what we can learn from business – they are already doing some of this in-house; collect practices around business models
- Experiment with new models of services
- Investigate GE model
- Address intellectual property issues
- Follow on meeting