

Social Studies of Information

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Outline

- Why SSI? and Why Now?
- Background of SST
- Foreground of SSI
- Five clusters of ideas about SSI
- Application across iSchool interests
- A future for SSI

Why SSI and Why Now?

- Building on Social Studies of Technology to a Social Studies of Information
 - Social Studies of Technology (SST)
 - Science and Technology Studies (STS)
 - Science, Technology and Society (ST&S)
 - Science, Technology and Human Values
 - Social Studies of Science (SSS)
 - Social Studies of Scientific Knowledge (SSK)
- Which examine (in brief)
 - Shaping of science, science practice, science knowledge
 - Impact of science and technology on society, organizations, politics, economics, cultures, etc.

Disciplinary perspectives

- Philosophy of Science
- History of Science and Technology
- Sociology of Science / Scientific Knowledge
- Feminist Studies

Why SSI? and Why Now?

- Building on Social Studies of Technology
 - Identify what is uniquely ‘i’ [information] that can inform iSchool initiatives
 - Support a **critical mass of inquiry** - ideas, individuals, innovations - that inform iPractice
 - Provide insight for next generation information systems **designers, thinkers, policy makers**
- Now, because of critical mass of iSchools,
 - Can gain a longer range view of outcomes and provide a parallel view and track for **iPractice**

What is uniquely Social Studies of Information?

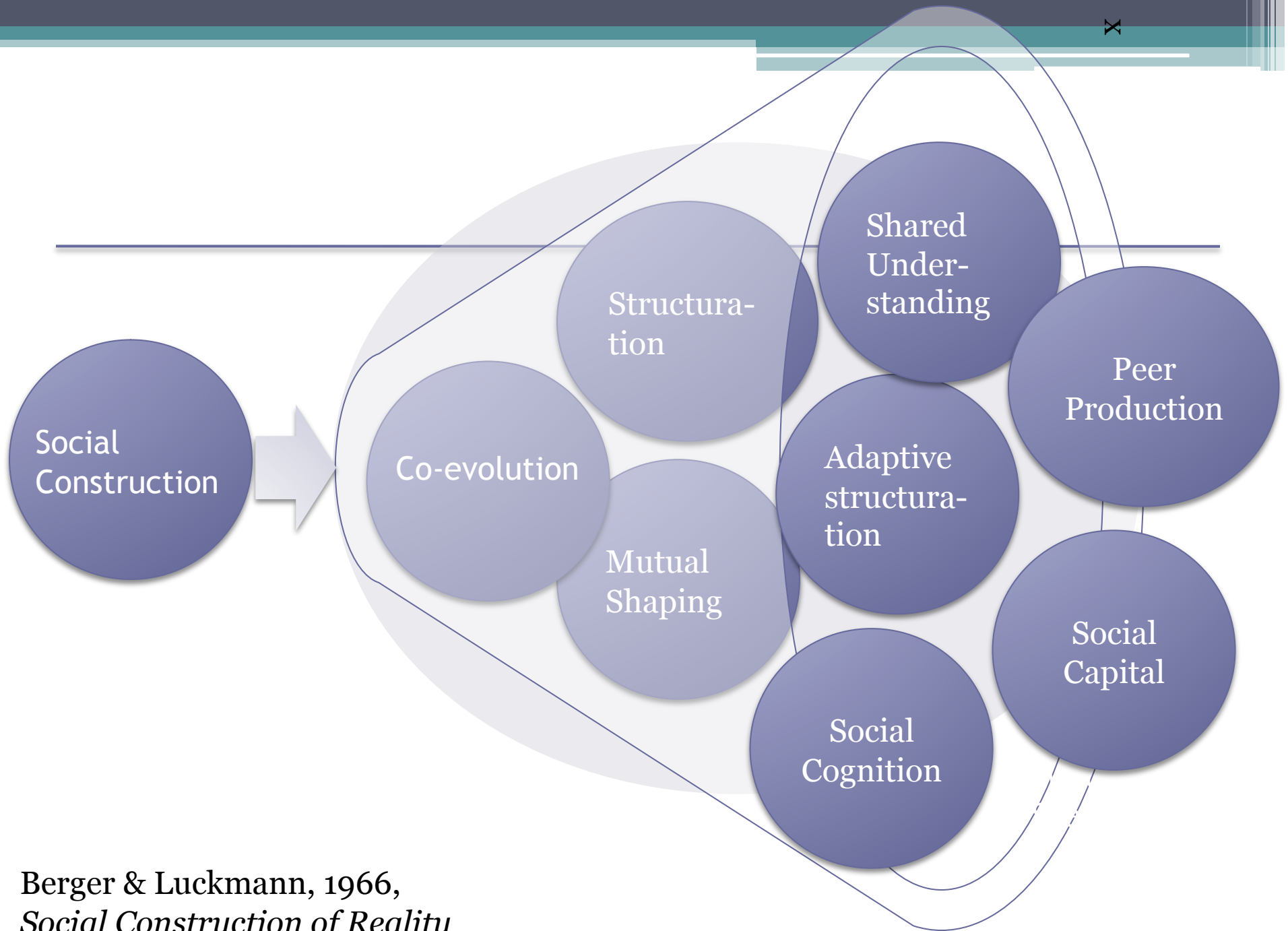
- Some or all of the following?
 - Data-Information-Knowledge
 - Data-Info-Knowledge in Context
 - Crossing boundaries: Social, technical, cultural, etc.
 - Design, use, instantiation, routinization
 - Shaping and reshaping of information artifacts
 - Meaning-making, sense-making
 - Human identity and values



Five+ Clusters of Ideas about SSI

- Social Construction
- Social and Technical
- Layers and Infrastructures
 - + Boundaries and Ecologies
- Physical and Artifactual
- SST lens on information practices





Berger & Luckmann, 1966,
Social Construction of Reality

Social Construction and iScience

- Social construction of reality
 - Understanding the possibility for another outcome.
 - ‘How could this be otherwise? What other form could it have taken?’ (Nardi, 2013)
- SST: unpacking current reality for its constructs
- SSI: using understanding of packing to design, smooth installation processes, and work with emergent outcomes



Technical

Social

Data

Mash-ups

Prototypes

Algorithms

The turn to the 'socio-'

Narrative

Sensemaking

Technologies-in-use

Boundary Crossing

Technologies-in-use
Materiality
Sociomateriality

Mash-ups
Remix
**Socio-technical
Assemblies**

Actor-Networks
Social Networks

Social Capital
**Socio-technical
Capital**

Group behavior
Communities of
Practice
Activity theory

Socio-Technical and iScience

- Information ‘systems’ (widely interpreted)
 - Classification systems to database systems to systems of information transfer and flow
- Design and Use
 - Design practices and outcomes
 - The mutual shaping of design and use, technology and practice
- Wide view of User populations
 - Children, youth, public, organizational, cultural, cross-cultural, multi-lingual, regional, global, etc.
- Social consequences
 - Exclusion and/or Empowerment
- Salience
 - Technology features that matter, that are “material” (significant) for the user (Leonardi, 2013)



Layers and Infrastructures

Diffusion

Readiness

Adopters

Appropriations

Ironic

Faithful

Infrastructures

Technical

Social

Layers, Infrastructure and iScience

- History
 - Who used it before? How as it organized before? How does this history affect current practice?
- User Experience
 - What preparation, experiences, biases does this individual bring to this information experience?
- Invisible
 - What can we not see? What do we take for granted
- Generations of data, record, information keeping systems and practices
- Practice layered on practice, adjusted and sloughed off yet echoed in current routine
- Infrastructures, substrates and historical practice that form and lead current practice

Boundaries and Ecologies

- Boundary work
 - Interface design (Brown & Duguid, 1994)
 - Boundary objects (Star & Griesemer, 1989)
 - Technology mediation / Material agency
 - Interdisciplinarity
 - Distributed practice
- Hidden work
 - Invisible work (Star & Strauss, 1999), Infrastructure (Star & Bowker, 2002)
- Ecologies
 - Information ecologies (Nardi & O'Day, 1999; Davenport & Prusak, 1997)
- Networks
 - Social networks, actor networks (Latour), socio-technical interaction networks (Kling)



Boundaries, Ecologies and iScience

- New work/boundary configurations
 - Virtual communities, networked individualism (Wellman)
 - Open source, crowdsourcing
 - Open access, copyright, intellectual property
 - Academic performance and altmetrics
 - Social media information ecologies
- Sustainability / Persistence
 - Persistent conversation (Herring & Erickson)

- Sustainability at the boundary of material and social practice
- *The 'networks of social practice' ... that must be put in place and maintained in order to make a ... project possible, and to sustain the resulting artifact over time'*

(Leonardi, 2012, quoting Suchman)



Physical and Artifactual

- Including the physical
 - Materiality, material agency/mediation
 - Affordances of systems
 - Devices as identity information
 - Landscape as information (First Nations)
- Mixing physical and cyber
 - Smart cities, GPS, location-activated games/information

Physical, Artifactual and iScience

- Wider view encompassing
 - Multiple elements -- physical device to the geographic location
 - Design for multi-modality, multi-locational, multiple social roles, social worlds, cultural perspectives
- Meaning-making in practice
 - Technology-in-use / Socio-materiality / affordances
 - Books, documents, devices, programs, filing cabinets, databases
 - Customization, identity, branding, culture
 - Human identity and values
 - Information ethics, value centered design, personalization
- Ethics
 - Cultural differences in information access
 - Security, privacy, ownership

SST/STS Lens on Information Practices

- Understanding our own production
 - Classification (Mai, 2011)
 - Database forms and uses
 - Data and Narrative (Manovich, 2001)
 - Operationalization → Quantification
 - Performance metrics, standardized tests
 - Tax numbers, passports, redress numbers
 - Data traces, exhaust, footprints



A Lens on iScience

- How does entry of information into databases change how we view it? How we use it?
 - Authority, trust, permanence
- What are we starting with mass data harvesting and analysis
 - Big Data; Data mining, text mining
 - Computational social science
- What values engage presentation of data?
 - Visual literacy, computer access
- What values do new metrics put in place?
 - E.g., Altmetrics
- What ethical effects emerge?
 - Privacy, visibility, ownership, use, reuse





A Future for SSI

- Capturing the essence of SST/STS in application to information
- Viewed through this lens to making mean and express human values

Yours to discuss today

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