

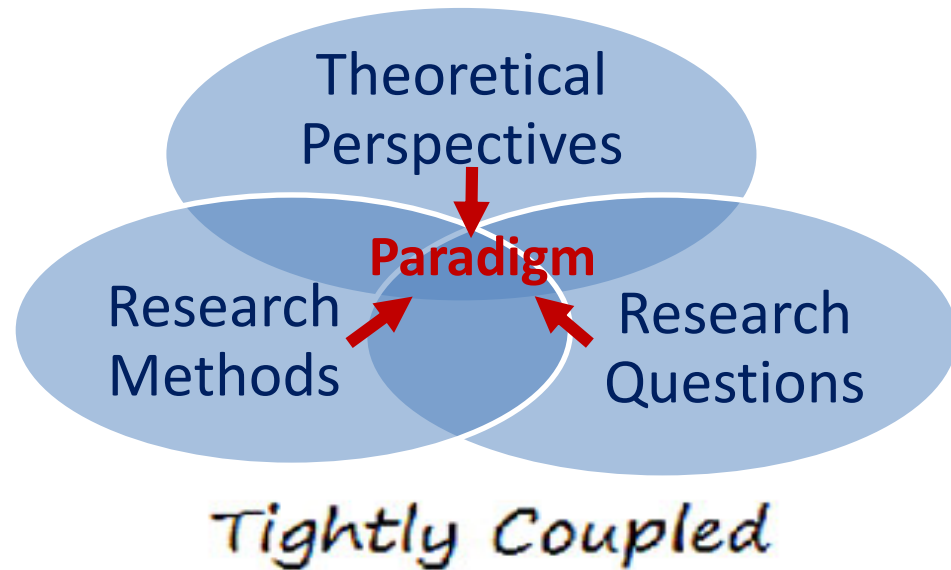
**The Discipline at an Inflection Point:
Overcoming Competency Traps, Seizing New Opportunities**

Arun Rai
Georgia State University

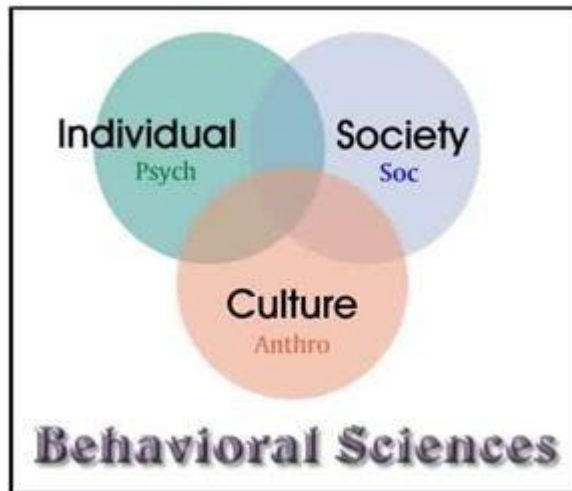
Presented at
City University of Hong Kong Summer Workshop
June 19, 2018

The Traditional Labels

- **Tight coupling:**
 - Types of research questions
 - Informing theoretical perspectives and reference disciplines
 - Research methods
- Field mapped into few paradigms: ***behavioral, design science, economics, organizational***
- Labels reflected domain of contribution (plus approaches, given clear separations)



What We Considered Behavioral Work



- Research questions related to micro- or meso-level IS phenomena (e.g., IS use, decision making, trust)
- Informed by reference disciplines such as psychology and social psychology
- Used social science research methods—surveys, lab experiments, field studies, and qualitative approaches

What We Considered Design Science



- Create **novel** IS artifacts to solve problems and establish new (better) realities
- Inform work with kernel theories
- Evaluate the **utility** of IS artifacts

What We Considered IS Economics



- Investigate research questions related to value of IS (e.g., IT business value)
- Inform work by drawing on theories from economics
- Use economics research methods such as analytical modeling and econometrics

What We Considered Organizational Research



- Addressed organizational issues (e.g., IS capabilities, governance)
- Informed their work by relevant macro-level theories in strategy, economics, industrial-organizational psychology, and organizational sociology
- Used a combination of social science and economics related methods



Labels

EDITOR'S COMMENTS

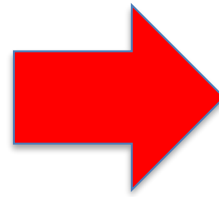
Beyond Outdated Labels: The Blending of IS Research Traditions

MIS Quarterly Vol. 42 No. 1 pp. iii-vi/March 2018

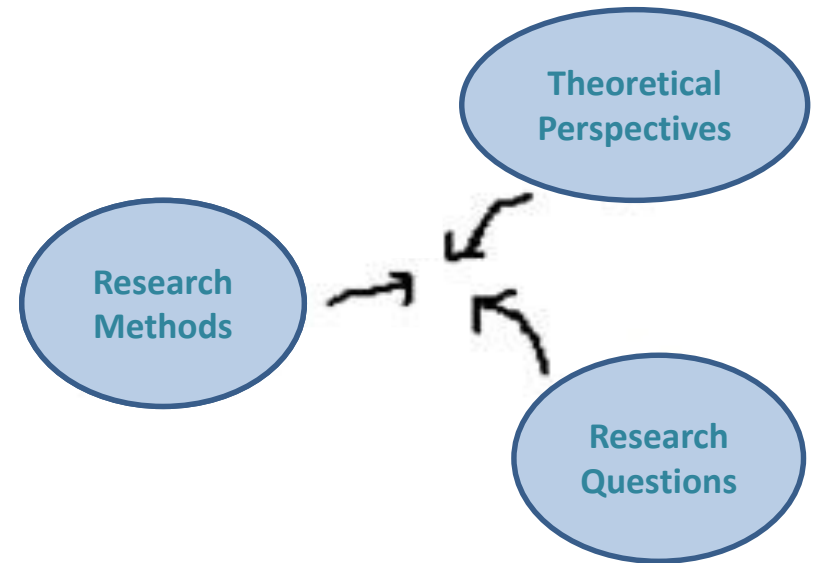
Breaking the Mold of Traditional Labels

Forces Propelling Diversity in Research

- Complexity/scope of IS phenomena
- Availability of new types of data
- Diversity of research teams
- Training of scholars



Blending of Traditions: Era of Loose-Coupling



Loosely Coupled

What We Are Seeing: Old Labels Not Capturing New Genres

**Behavioral economics
combining behavioral and
economics theories**

**Behavioral issues
investigated using a
combination of
psychometrics, econometrics,
network analysis, qualitative
methods, and computational
approaches**

**“Not that Type of
Design Science”**

Loose-coupling of

- Problems that are addressed
- Types of artifacts that are designed and evaluated
- Search processes that are used to create and refine the IT artifacts to solve problems
- Types of knowledge contributions that are made

EDITOR'S COMMENTS



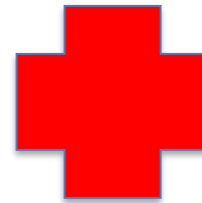
MIS
Quarterly

Diversity of Design Science Research



What We Are *Also* Seeing: Method-only Casting, Short-Circuiting Accretion

- Use of econometrics to study behaviors of individuals in online communities claiming the work is IS economics
- Application of an established computational technique to uncover/measure behaviors of individuals through analysis of textual data claiming the work is design science



Overlooking relevant knowledge and consequently constraining what is learned

The Disutility of Outdated Labels

- Constrains the world view of scholars on their choices in the research process
- Diminishes the contributions by not connecting with relevant knowledge
- Leads editors and reviewers to adopt a traditional lens to evaluate innovative work, potentially leading to Type II errors
- Labels turning into political jockeying, deflecting from substantive discussions on questions

Rethinking IS Research With Cross-Paradigm Combinative Practices

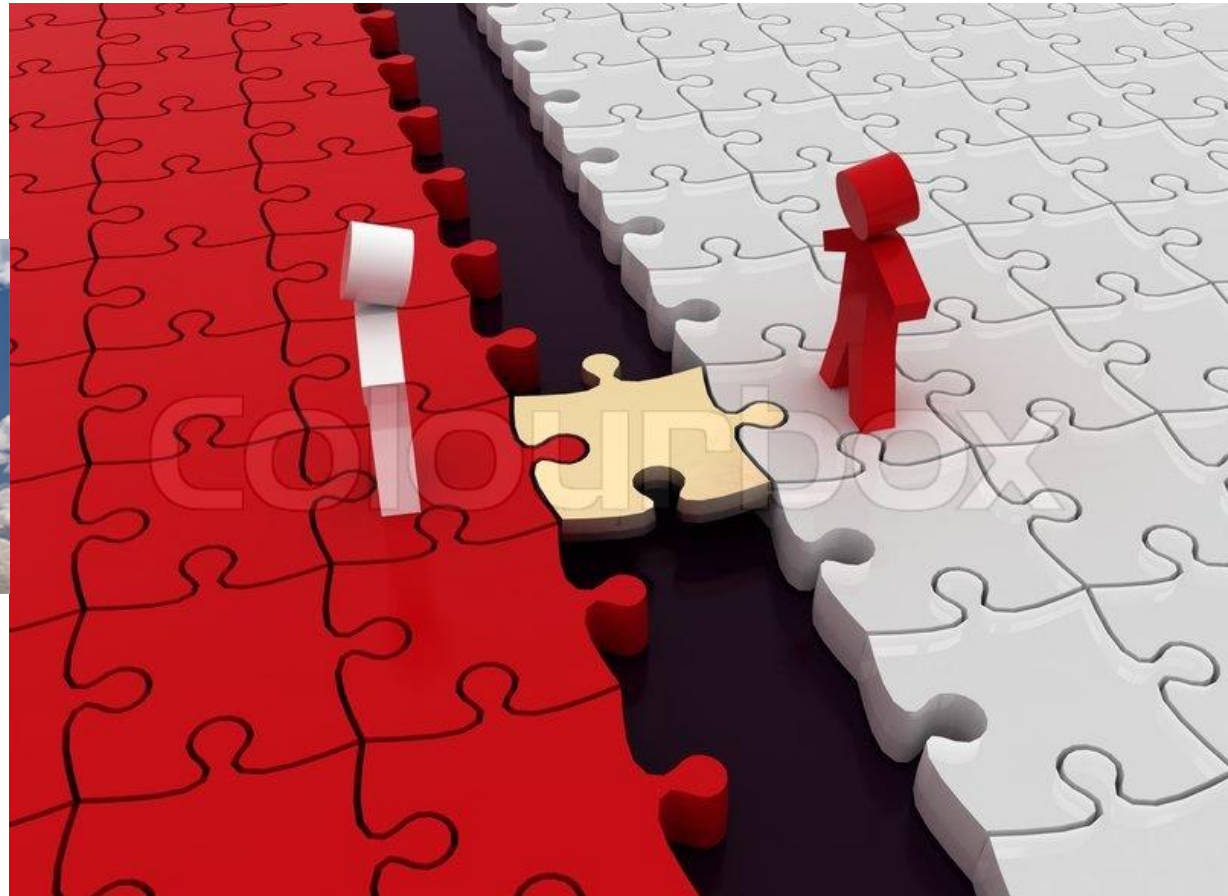


Table 1. Cross-Paradigm Combinative Practices in IS Research

		Non-Paradigmatic Practices	
		Theoretical Perspective	Method
Paradigmatic Practices	Theoretical Perspective	<p align="center">Cross-Paradigm Theoretical Combination</p> <p><i>Example:</i> Behavioral and economics theories on influence mechanisms combined to understand how a platform’s design affects the propagation of social influence in online networks</p>	<p align="center">Paradigmatic Theory-Non-Paradigmatic Method Combination</p> <p><i>Example:</i> Behavioral/economics IS theoretical perspectives combined with computational methods such as topic modeling, text mining, and image recognition to develop measures of constructs</p>
	Method	<p align="center">Paradigmatic Method-Non-Paradigmatic Theory Combination</p> <p><i>Example:</i> IS design science research combined with behavioral theoretical perspectives on IS use to inform, evaluate, and refine artifact design; insights can also be used to revise the informing theoretical perspectives.</p>	<p align="center">Cross-Paradigm Methods Combination</p> <p><i>Example:</i> Econometric analysis of archival data for causal identification combined with primary data collected using surveys or interviews to illuminate the underlying mechanisms; Grounded theory method to discover concepts and relationships combined with computational approaches applied to large corpus of text to discover topics and relationships.</p>

Pursuing Cross-Paradigm Combinative Practices

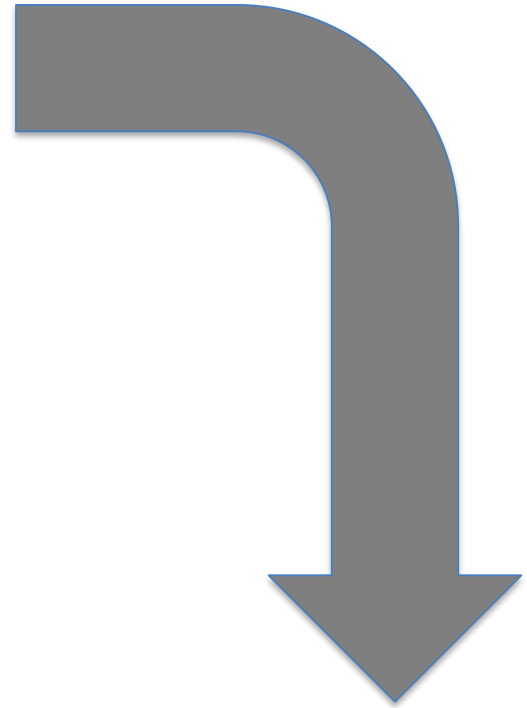


H.A. Simon
Nobel Laureate in Economic Sciences, 1978

Not merely a matter of constituting a team with members having complementary specializations in knowledge and skills, but requires “**individual members of the team to become multi-disciplinary in knowledge, if not skills**” (Simon 1991, p. 10).

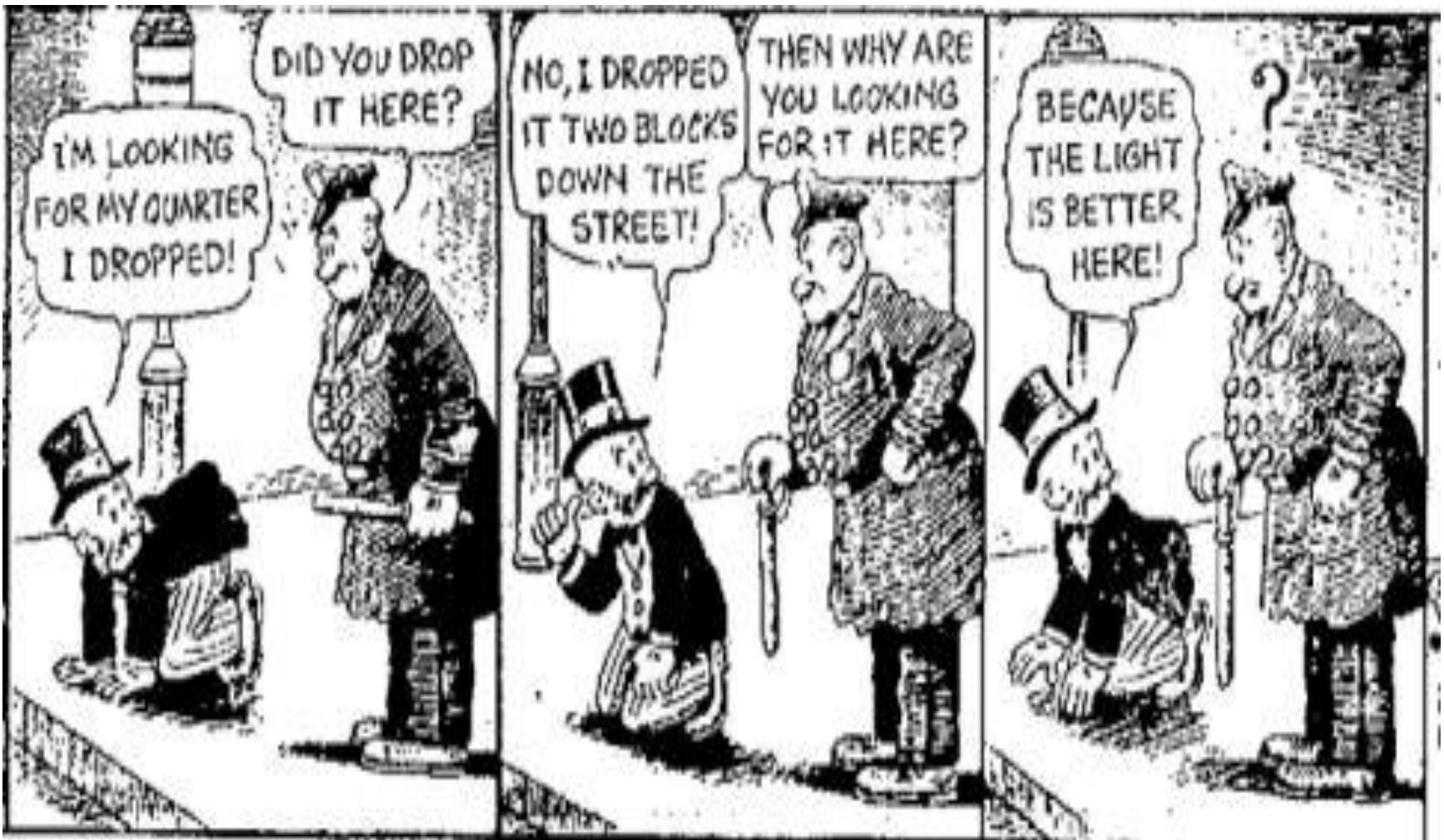
Simon, H. A. 1991. “Random Thoughts on Methods of Research,” Unpublished Manuscript, Carnegie Mellon University, Pittsburgh, PA.

**Outdated Labels,
Cross-Paradigm
Combinative Practices**



**Pursuit of novelty,
not accretion of knowledge**

The Streetlight Effect



CAUTION

Fast-chase of novel contexts without linkage to accreted knowledge

The Streetlight Effect: Exacerbated By Easy-to-Access Data



The White House
Office of the Press Secretary

For Immediate Release

May 09, 2013

Executive Order -- Making Open and Machine Readable the New Default for Government Information

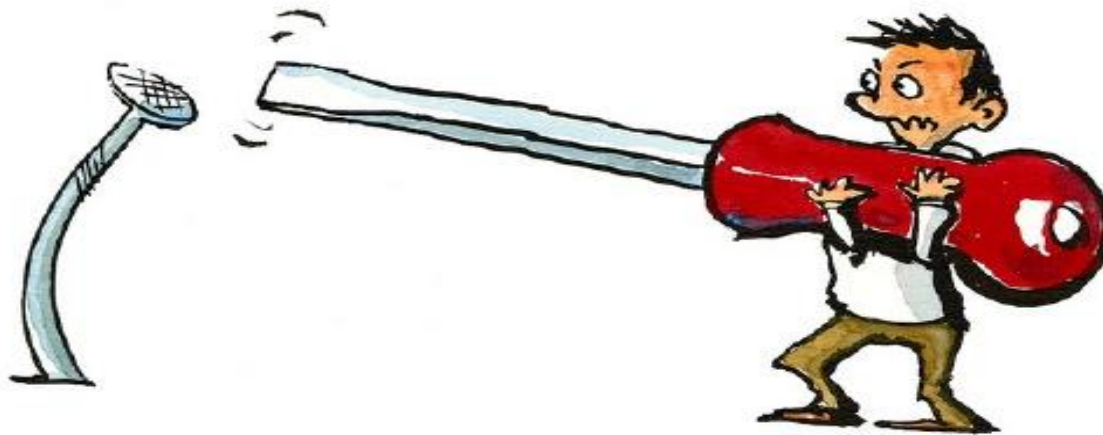
EXECUTIVE ORDER

MAKING OPEN AND MACHINE READABLE THE NEW DEFAULT FOR GOVERNMENT INFORMATION



The Streetlight Effect: Exacerbated By Have-Hammer-Will-Travel

The Law of the Hammer



If the only tool you have is a hammer,
everything looks like a nail.

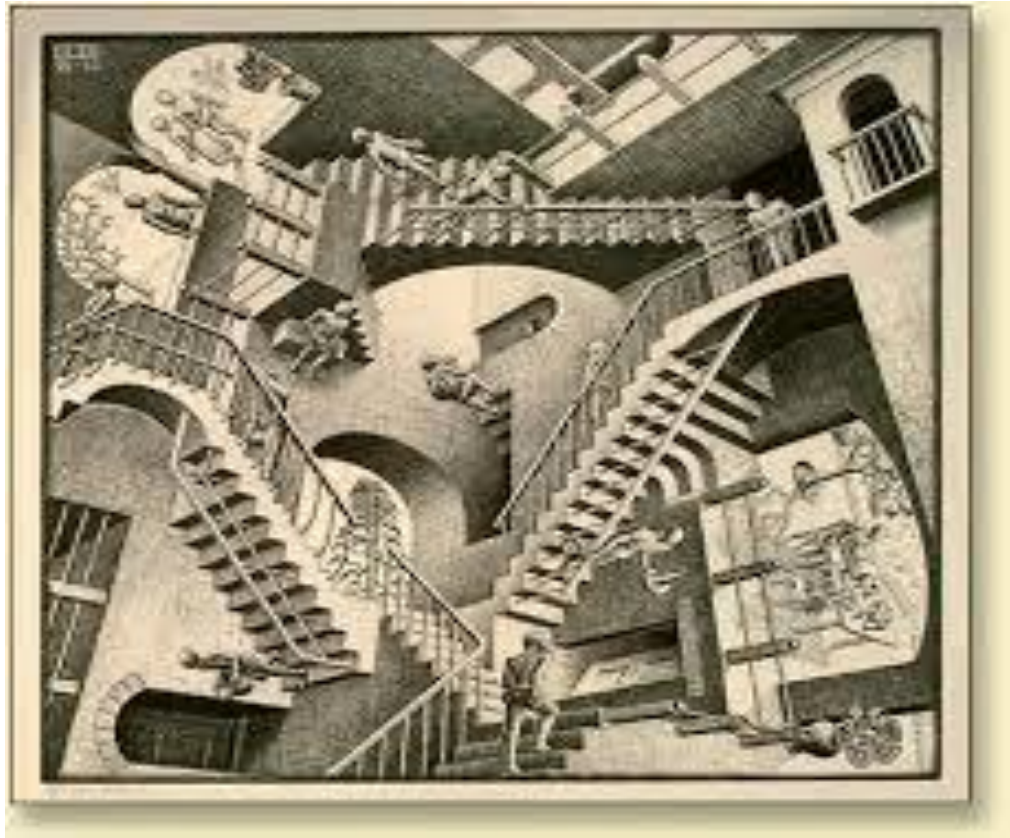
Abraham Maslow - The Psychology of Science - 1966

The Streetlight Effect: Exacerbated By Chasing New “Digital” Contexts



**Relation to
broader
phenomena?**

The Quicksand of Interestingness X Streetlight Effect



- Coherence?
- Accretion of knowledge?

**The Winchester House —
Novelty For Novelty's Sake!**

Missing the Forest for the Trees



EDITOR'S COMMENTS

Seeing the Forest for the Trees

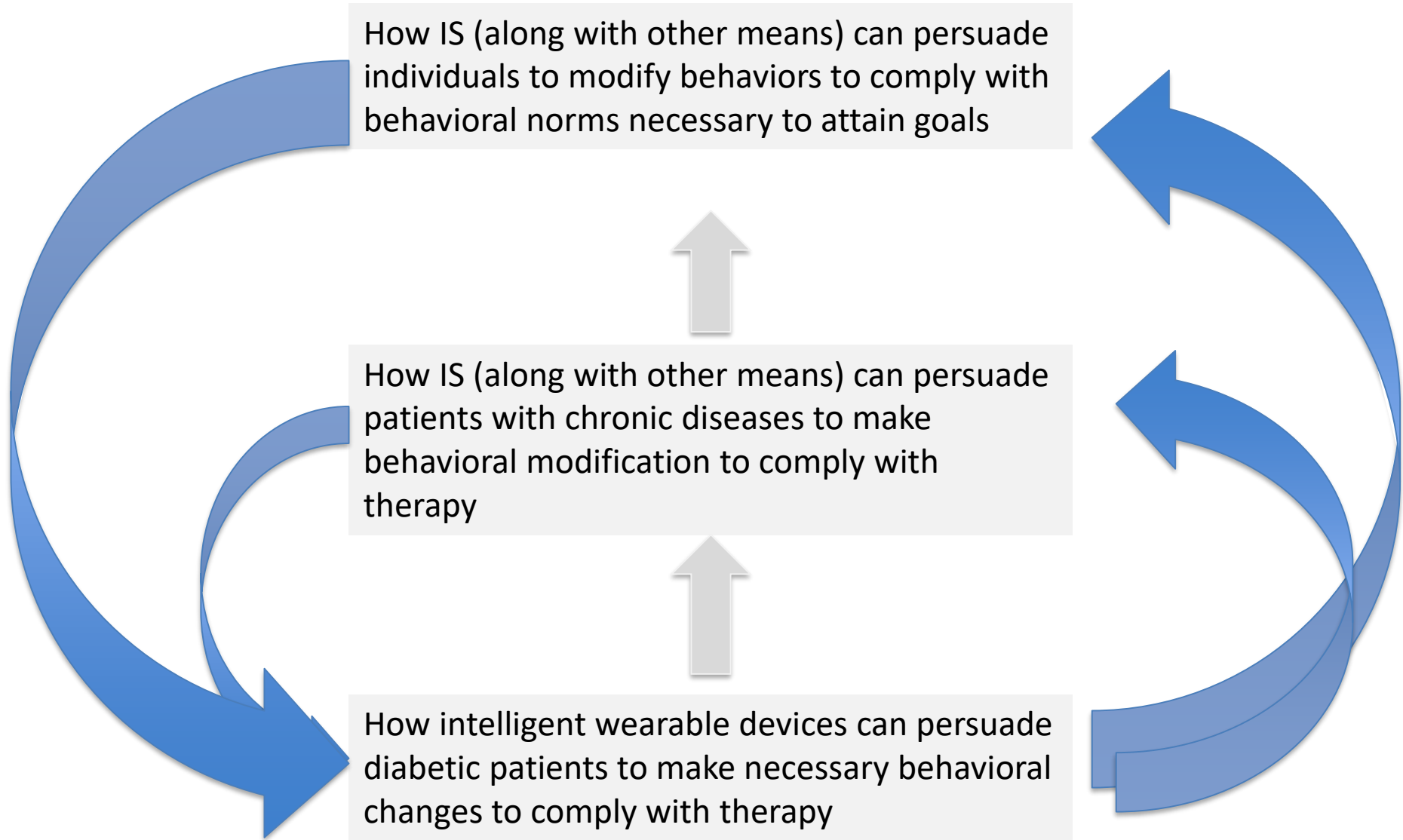
MIS Quarterly Vol. 41 No. 4 pp. iii-vii/December 2017

Risk of Over- or Under-Problematizing

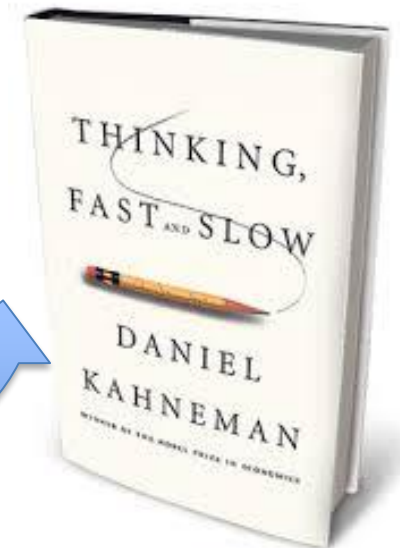
How IS (along with other means) can persuade individuals to modify behaviors to comply with behavioral norms necessary to attain goals

How IS (along with other means) can persuade patients with chronic diseases to make behavioral modification to comply with therapy

How intelligent wearable devices can persuade diabetic patients to make necessary behavioral changes to comply with therapy

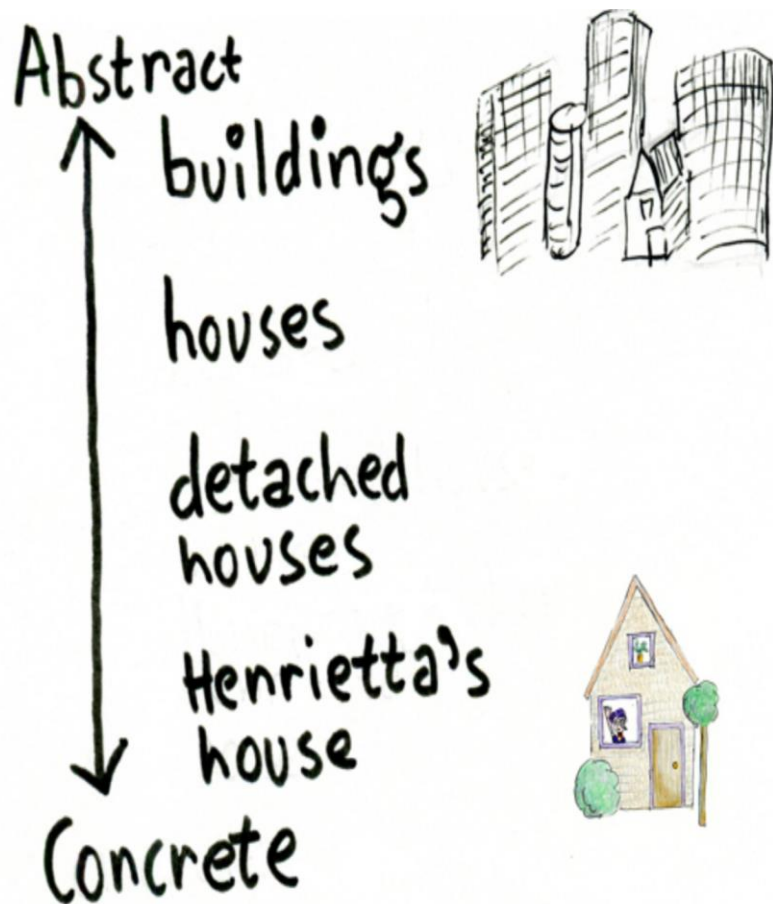


Practice 1: Transcend the Empirically Specific Situation



Abstraction

Practice 2: Engage in An “Emptying Operation” to Climb the Ladder of Abstraction



- **Y-words:** general concepts in the broader knowledge base
- **X-words:** situational issues related to the immediate problem of interest
- Evaluate if **x-words** can be deleted/reconceptualized as **y-words** to encompass a broader set of situations

Practice 3: Use a Variety of Theories, Models and Literatures For Thoughts Trials on Abstractions



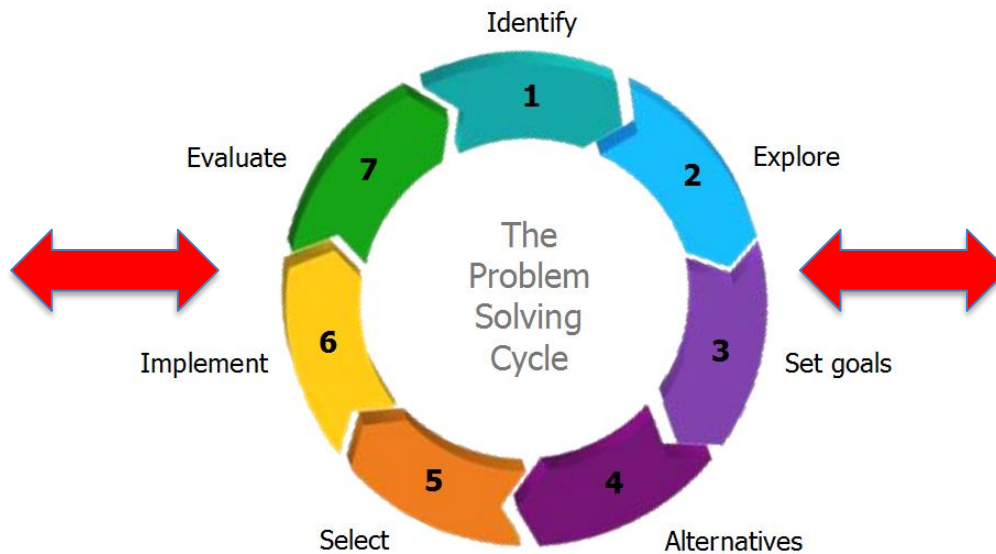
- How to manage the evolution of digital platforms — *thought trials on abstractions*:
 - Capabilities-only
 - Governance-only
 - Capabilities x governance
 - Capabilities x governance with digital options lens
 - Capabilities x governance with digital options **and** digital lenses

Practice 4: Revise Abstractions by Searching for Anomalies and Advancing a Coherent Resolution

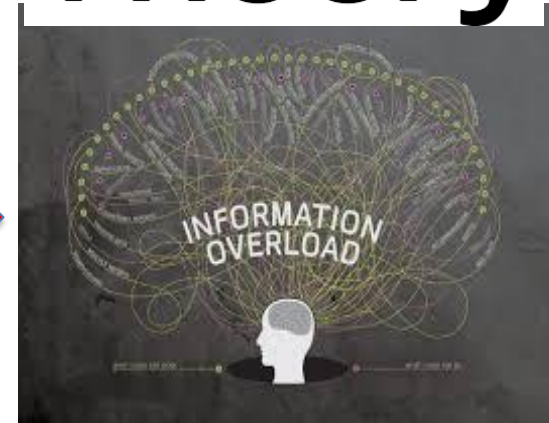


- Observe anomalies inconsistent with human behavior in progression of social movements
- Challenge assumption that central actors are humans
- Advance resolution to how social movements progress

Practice 5: Develop Abstractions by Applying Problem-Solving Cycles



Theory



Design artifact to reduce information overload on physician during online patient consultations

Practice 6: Connect with Broader Scholarly Conversations

Writing
for Scholarly
Publication

Scholarship as conversation:
the value of scholarship is influenced by how effectively it connects with the relevant scholarly conversations (and by extension, conversants).

Anne Sigismund Huff

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