Using IS Theory in Practice

Working with Literature and References

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Learning objectives

Practical insights

Know about different tools to manage references (Endnote, Zotero, etc.)

Know about ways to find IS literature (key journals, keyword search, etc.)

Know about important literature databases (Google Scholar, Scopus)

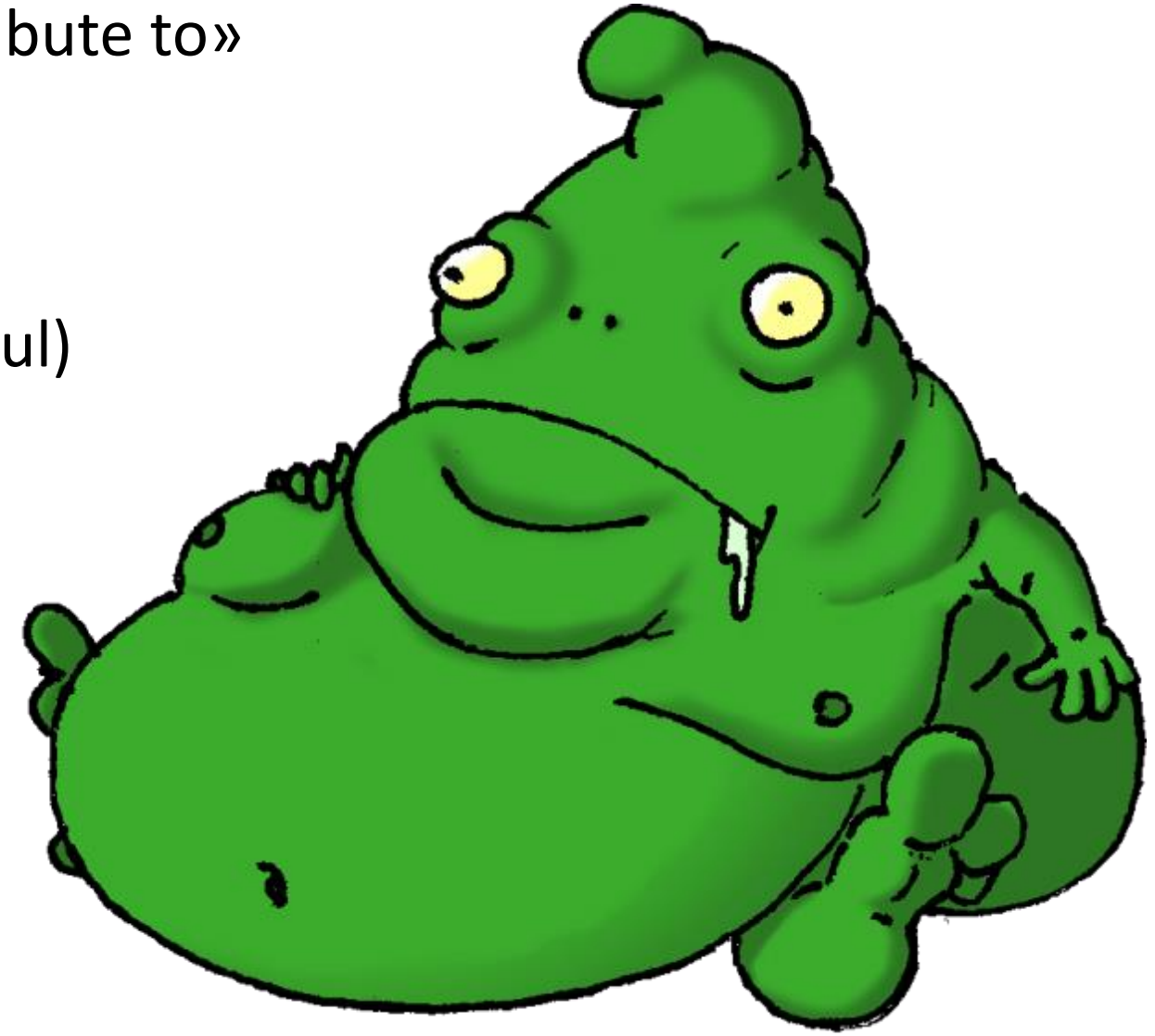
Knowledge objective

***Frame* your research by finding or *constructing* a "key debate"**

Literature and you…

«A **body of knowledge** to contribute to»

What is **relevant**?
Where do I **start** and when do I **stop**?
How do I find a **focus**? (supervisors useful)



What is IS literature?

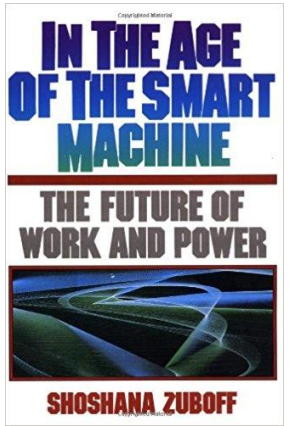
Top 8 IS journals (Wikipedia)

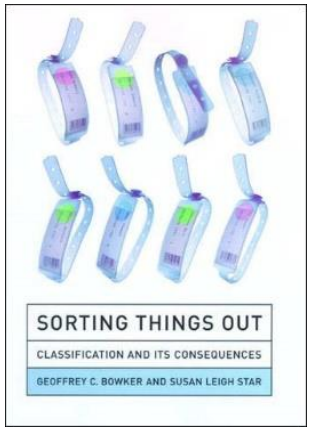
Petter Nielsen's list of relevant journals (IS group)

Related fields also have journals: Computer Supported Collaborative Work, Software Engineering, media studies, Organizational Science, ICT4D

The IS field also have *conference proceedings* (**ICIS, ECIS**, SCIS, IRIS)

And there are books, of course!





Literature Search

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Concept-oriented, **problem-oriented**, **technology oriented** search - or a combination

(Scopus, Google Scholar)

After reading an article that you find relevant

- Look at key references and ***backtrack***
- look for new research articles citing it

Writing a literature review

Some “key debates” are explicit in journals (e.g, special issues)

Someone has written a **“systematic reviews”** about a concept, topic, problem, technology, etc.

Agency debate in SJIS 2005 (Rose et. al. and others)

PD debate SJIS 2010 (Morten Kyng and others)

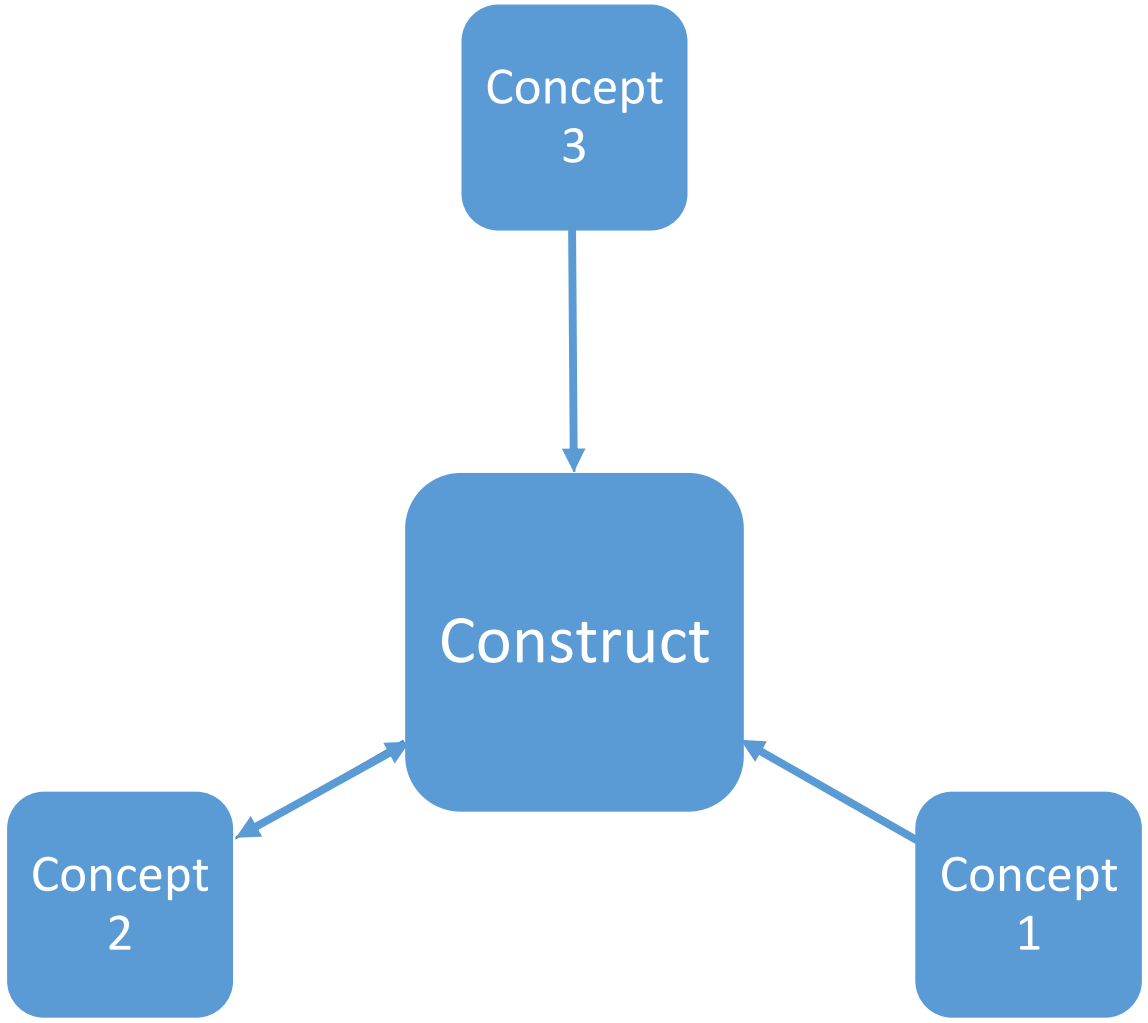
But most debates need to be **constructed** by you!

Concept-centric vs Author-centric literature review

Concept-centric	Author-centric
Concept X [author A, author B, …]	Author A [concept X, concept Y, …]
Concept Y [author A, author B, …]	Author B [concept X, concept W, concept Z, …]

Related Research VS Theroy / Conceptual Framework

Theory, Construct, Concept (very simplified!)



Reference Management – Get organized!

RefWorks

Thomson Reuters EndNote
Advance your Research and Publish Instantly

zotero

MENDELEY

- Anything is better than a messy *cut'n'paste* Word document!
- Link PDFs as **attachments** to bibliographic information in the reference manager for easy retrieval
- Consider storing the whole library in a Dropbox folder or similar for backup and access
- Integrate reference management with **word processor** (Microsoft Word, LibreOffice, Google Docs)

Terje's PhD – an example

Grafting Information Infrastructure

Mobile Phone-based Health Information System Implementations in India and Malawi

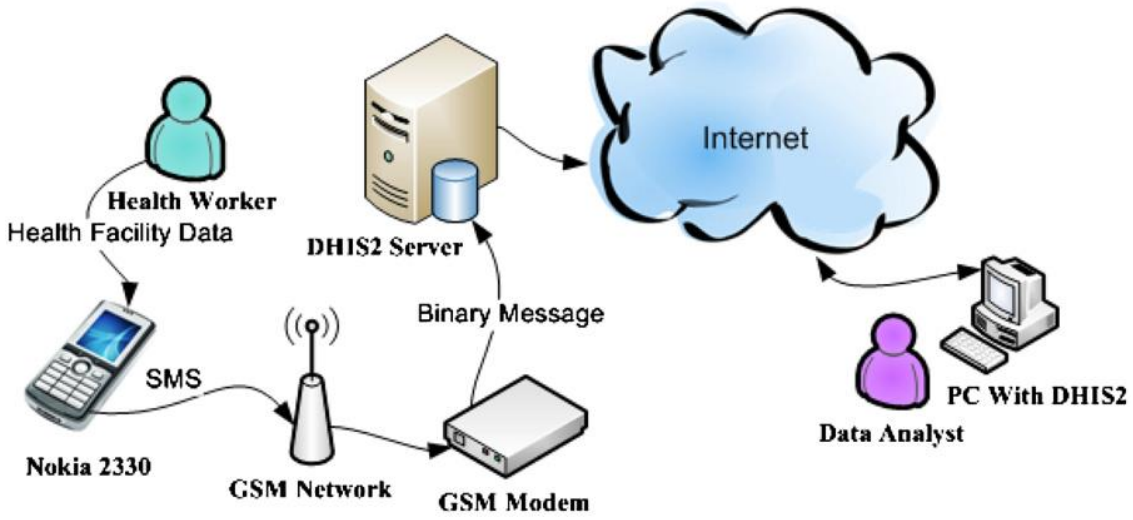
Two studies of mobile phone-based health data reporting

India, Punjab **«big bang roll-out»**

- from pilot (200) to 5000 health workers reporting using compressed SMS

Malawi, Lilongwe **«baby steps»**

- from pilot (17) to 44 + selected health facilities reporting using mobile-web /mobile data



Similar **use case** of **reporting accurate and timely data**, but different size, communication infrastructure, financial resources, culture and politics

Punjab (India)

Lilongwe (Malawi)

Related Research: Sustainability beyond the ICT4D project

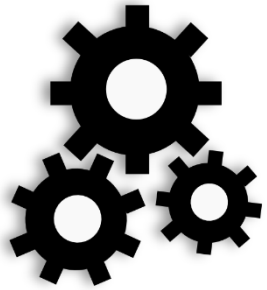
It's about **domains** (e.g., public health),
and **people** (e.g., health workers, managers),
their **institutions** (e.g., funding arrangements),
extant **infrastructure**,
capacity / training
and buy-in from stakeholders in **control**

Theory /lens: information infrastructure

«bricolage»

«installed base cultivation»

Information infrastructure is **developed** and maintained in a dynamic, **distributed** and **episodic** manner by a **multiplicity** of **stakeholders** with diverse interests and aspirations
(Aanestad and Jensen 2011, Star 1999, Hepso, Monteiro and Rolland 2009)



«bootstrapping»

*What is missing [conceptually] is a bridge between what we understand as deliberate efforts to '**build**' or **extend information infrastructure**, usually conceptualized by drawing on **mechanical metaphors** ('**layers**', '**gateways**' and '**modules**'), and what we see as an evolving and unmanageable whole, more commonly portrayed through **biological** and **ecological metaphors***

Information infrastructure development as *grafting*

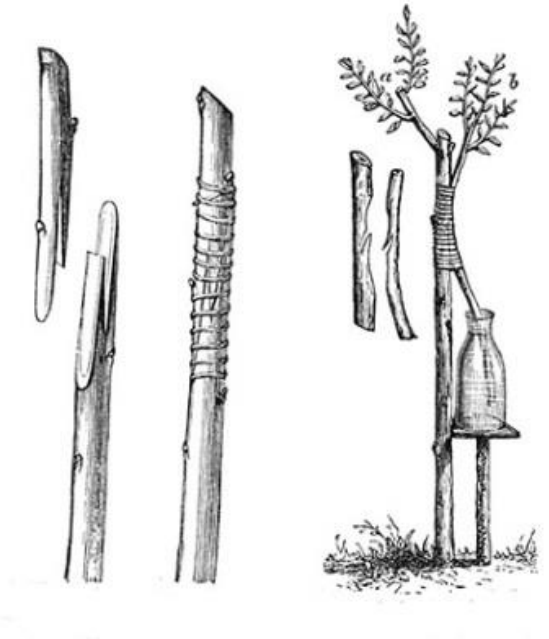
"[a process whereby] *organizational goal-oriented information system innovations merge with and extend existing socio-technical arrangements so that the parts continue to grow*" (Sanner et al., 2014, p. 225)

Mango grafting

Propagation technique – veneer grafting

Grafted avocado seedlings

From ICT project to information infrastructure development - four *grafting* themes



i) Early socio-technical arrangements i.e. the ***point of union*** may be difficult to discern and have long-term, even irreversible, Implications (e.g., after pilot project scale-up)

ii) Socio-technical ***congeniality*** (bi-directional malleability) characterizes the sustainability of novel ICT capabilities in the context of information infrastructure development

iii) Information infrastructure innovations are ***fragile*** and require **nurturing inputs**, including ownership and control, from a **growing network** of, often previously uncoordinated, **stakeholders**

iv) Successful hybrid ICT capabilities ***propagate*** *(functional, spatial, domain)*

Grafting – as a construct with four concepts