

Qualitative and Interpretive Approaches to Studying Information Technologies Following Acceptance

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Before (and after) Adoption



High-Level Trends

- Trends in the adoption process
The removal of choice over adoption and acceptance.
- Trends in IT
From discrete technologies to ensembles of multifunctional devices, services, and software features.

IT is adopted by organizations and imposed on end users.

- Is use voluntary?
- Have users adopted the IT?
- Have users accepted the IT?
- Is use constrained by organizational standards?

Non-adoption is not an option.

- IT as an assumed toolkit for business and professional users.
- Critical mass in networks of use.
- Upgrades to packaged software are pushed onto users.
- Dinosaurs are (almost) extinct.

Saturated acceptance of platforms

- Cell phones
- Personal computers
- Microsoft operating systems
- Email
- Internet service

IT applications include a multitude of capabilities

- Bloated software
- Many features can be ignored
- Others can be used in unanticipated ways
- Design intentions do not dictate patterns of use

Devices are multifunctional

- Do you take and send pictures with your cell phone?
- What functions do you use on your PDA?
Your tablet PC?

Implications of these Trends

- Adoption/acceptance is not very interesting or important.
- IT researchers need to look at how IT is used, not whether it is adopted or not.

However...

Patterns of use following adoption/acceptance may make much greater sense if the process of adoption/acceptance is understood.

Thus, the factors or processes leading to adoption should not be ignored.

Before and After Adoption



After Adoption: Varieties of IT Use

- Appropriation
- Improvisation
- Enactment
- Practice
- Reinvention
- Bricolage

After Adoption: Characteristics of Use

- Faithful
- Intended
- Functional
- Contradictory
- Unintended
- Dysfunctional

Why Qualitative Research on Use?

- Useful in finding complexities, nuances, and detail in the data.
- Able to generate patterns of use involving multiple devices and functions.
- Theoretical explanations can be built from qualitative data. Inductive theory building.

Why Interpretive Research?

- Access the subjective understandings and meanings that IT has for people.
- “Local” explanations for why people use IT in unexpected ways.

Research Examples

- Robey & Sahay ISR (1996)
- Boudreau & Seligman (2003)
- Cousins (2004)

Robey & Sahay (1996)

- Examined the consequences of the same GIS software in two neighboring county governments.
- North County adopted, spread conceptual knowledge, and used IT to transform work.
- South County adopted, trained on procedures, and GIS was used very little.

Boudreau & Seligman (2003)

- Post-implementation study of ERP in a public organization.
- Implementation process was “fantastic.”
- Users avoided formal training.
- Users resisted use for 12 months.
- Learning was informal and improvised.
- Later use involved workarounds, tweaks, and reinventions.

Cousins (2004)

- Ongoing study of nomadic workers using mobile technologies.
- Looking for patterns of use involving:
 - Laptop computers
 - PDAs
 - Cell phones
- Focus on the interplay among past practices, future possibilities, and present choices.

Common Elements Across Studies

- Concerned with post-adoption use.
- Concerned with using pre-adoption processes to explain post-adoption use.
- Qualitative
- Focused on user agency

Specific theories that might help

- Organizational Learning
- Communities of Practice: situated learning (Wenger 1998)
- Adaptive Structuration Theory (DeSanctis and Poole 1994)
- Orlikowski's (2000) Practice Lens: inertia, change, and improvisation
- Temporal Theory of Human Agency (Emirbayer and Mische 1998)

Researchable Question 1

- How do users assign work and nonwork functions across the range of available technology platforms, services, and service providers?
 - Communication media choice: voice or email?
 - Reading screens or printed documents?
 - Personal time: switched on or off?
 - Work or fun: download mp3 files or customer data?

Researchable Question 2

- How do users cope with technologies that they have been forced to adopt and use?
 - Frequent “upgrades”
 - Continuous learning
 - Avoiding new features
 - Retrofitting new applications to work like old ones

Researchable Question 3

- How do users physically manage multiple devices as they move across time and space?
- Mundane considerations
 - Size and weight
 - Security
 - Power sources
 - Keyboard size
 - Display size