Getting back up! Managing the Relationship between Technology and Organizational Identity

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History of the Project

2019

PhD

Nominated for the PhD Prize Award

2020

Strategic Management Society

Best Paper Award

2021

British Academy of Management
What is technology?
Socio-material Entanglement
The History of the Evolving Meaning of the Telephone
Management Lens Applied on Technology

Polaroid camera

Nokia

AI
Organizational Identity

Unified and Coherent versus Fragmented and (possibly) Contradictory

‘Uniqueness Paradox’

Agentic Role of Identity

Central, Enduring, and Distinctive

Constant Flux
What about ‘big’ technology or monolithic technology?

- Prototypes until the technology is used
- Cannot be tested as a whole prior to actual operation
- Difficult to move because of its size
- Difficult to upgrade once built
- Technology is fundamental to their identity
Theoretical puzzle

What is the relationship between technologies frozen in space and time and the identity of the organization that operates them?
How we Explore this Theoretical Puzzle?

2008
Breakdown of the Large Hadron Collider (LHC)
Methodology

We use a Longitudinal Qualitative Single Case Study Methodology

Curious case of the talking pig

Closed system

Open system
Data Collection & Analysis

**Archives**
- Over 1000 news clippings analyzed January 2008 – December 2009
- Analyzed CERN Courier Newsletters
- Twitter posts

**Elite interviews**
- n=20

**Field Observations**
- n=4

**Qualitative Content Analysis**

**Data Triangulation**
Findings

CERN’s Organizational Identity: Deals with ‘Novel’ Technology (i.e. Complex Technology)

1. ‘High tech’ had so many problems that employees paid more attention to the high technology aspects of the machine.
2. Most ‘engineers’ and ‘physicists’ viewed it as not sexy (or as Plumber Technology).

1. The fault had happened in a ‘splice’ that is a connection between two superconducting magnets.
2. Organizational shock, despair, and pain.

1. Collectively acknowledging that connecting splices were in fact a complex procedure.
2. Adopted a ‘no blame’ attitude, in which CERN took the collective blame. No one was fired. Same people sent to fix the problem.
I. Identity Work: Identity Distancing

- Mundane/trivial
- Distancing resources
- Identity distancing from parts of technology not perceived as complex
- High tech seen part of the organizational identity
- Low tech outsourced as not seen part of the organizational identity

II. Identity Work: Identity Embracement

- Embracing complexity of low tech by redefining complexity
- Embracing collective responsibility (no firing and collective blame taking)
- Identity embracement of low tech

Before the Breakdown of the LHC

- Reevaluating the relationship with technology

Breakdown of the LHC

After the Breakdown of the LHC
The different views of Monolithic Technology

A: Simple
Type of Identity Work: Identity Embracement

B: Low-tech\textsubscript{t1}
Type of Identity Work: Identity Distancing

C: High-tech\textsubscript{t2}
Type of Identity Work: Identity Embracement

D: Low-tech\textsubscript{t2}
Type of Identity Work: Identity Embracement

Before the Breakdown

After the Breakdown

Re-evaluation After the breakdown

Use of Technology

Scope of Technology

Complex

Simple
Theoretical Framework: Agency Reversal Cycles

CERN's Organizational Identity

Identity work

Identity Distancing

Monolithic Technology

High Tech (complex technology)
Low-Tech (Simple technology)

Agency Reversal Breakdown of the Technology (LHC)

Monolithic Technology

High Tech (complex technology)
Low-Tech (Complex technology)

Identity work

Identity Embracement

CERN's Organizational Identity

Dealing with complex technology

Dealing with complex technology
Theoretical Contribution

• Relationship reversal captured by ‘agency reversal’ to capture the dynamism of the technology-identity relationship.

• Co-evolutionary and concurrent relationship, where an organization can associate differently with different parts of the same technology.

• Static nature of organizational identity is a blessing and not a bane.
Transferability not Generalizability

• Mechanism of identity distancing and identity embracement can also help us understand, why certain organizations would choose to be more sustainable and make an effort to incorporate ‘green practices’ than other organizations.

• Hard for organizations to adapt shift in societal attitudes and behaviors that are not in line with their own organizational identity.
Thank you!