

Digital Work Design – How Digitization Transforms Work and Leadership

Tanja Schwarzmüller, Prisca Brosi & Isabell M. Welp, Chair for Strategy and Organization, Technical University of Munich

Abstract

Digitization crucially transforms the way in which work is done and leadership is carried out in organizations. This poster discusses these changes as well as their potential chances and risks based on the results of a qualitative survey with experts from industry, research, associations and politics.

Theoretical background & research question

- Due to the digitization of all life domains, the world of work in organizations currently changes dramatically (Grant & Parker, 2009)
- Introducing new information technologies fundamentally shifts the conditions under which work is done and leadership is carried out (Parker, Wall, & Cordery, 2001)
- While existing theories of work design (Hackman & Oldham, 1975; Morgeson & Humphrey, 2006) and leadership cover a wide range of important factors, it seems worthwhile to assess these theories' validity against the background of an increasingly digitized working world (Oldham & Hackman, 2010) and to assess the chances and risks associated with potential changes in work design and leadership

Method

- Qualitative online expert survey with 49 German-speaking digitization experts from industry, research, associations and politics (70 % male, 66 % working in top management)
- Two survey rounds:
 - Round 1: Changes of work design and leadership due to digitization
 - Round 2: Ranking of these changes and assessment of their chances and risks
- Qualitative coding by two independent raters ($Kappa_{Work} = 0.84$; $Kappa_{Leadership} = 0.84$)

Results – Work Design

Major changes

- | | |
|---|--|
| <p>1 Enhanced competency requirements</p> <ul style="list-style-type: none"> Higher qualification necessary, more cognitive work Need for agility, flexibility, IT competencies Lifelong learning | <p>5 Changes in communication</p> <ul style="list-style-type: none"> Communication over interfaces (professional and organizational) Use of new media (chats, social networks) |
| <p>2 Increased intensity</p> <ul style="list-style-type: none"> Enhanced complexity Enhanced intensity Acceleration | <p>6 Structural changes</p> <ul style="list-style-type: none"> Changes in job contents, emergence of new jobs Enhanced insecurity, lower predictability Higher competition |
| <p>3 Technologization</p> <ul style="list-style-type: none"> Collaboration with machines Support through new tools and IT Automatization | <p>7 Changes in work-life setups</p> <ul style="list-style-type: none"> Increased flexibility Enhanced availability Lack of boundaries between work and private life |
| <p>4 Changes in teamwork</p> <ul style="list-style-type: none"> Increased teamwork New types of teamwork (dynamic, cross-division and cross-company, diverse, virtual, global) | <p>8 Increased influence</p> <ul style="list-style-type: none"> Enhanced autonomy Flatter hierarchies Democratization and participation |

Major chances +

- More development and learning
- More diverse and interesting jobs
- Increased autonomy
- More flexible work-life-models

- Major risks

- Increased strain and stress
- Less intense relationships
- Feelings of insecurity
- Job loss

Results – Leadership

Major changes

- | | |
|---|---|
| <p>1 Enhanced competency requirements</p> <ul style="list-style-type: none"> Complexity, change and diversity management Need for agility, language, intercultural and IT competencies Higher levels of qualification | <p>5 Health management</p> <ul style="list-style-type: none"> Allowing for work-life-balance Clear communication of availability expectations Allowing for flexible work arrangements |
| <p>2 Increased relationship orientation</p> <ul style="list-style-type: none"> Individualized leadership: Trust, coaching and enabling Integration: Networking, teambuilding, fostering collaboration | <p>6 Increased pressure</p> <ul style="list-style-type: none"> Acceleration More strain and stress Increasing availability |
| <p>3 Changed influence</p> <ul style="list-style-type: none"> Increased inspiration, motivation and role modeling Fostering autonomy, giving away power Democratization and participation | <p>7 Changes in personnel development</p> <ul style="list-style-type: none"> More development of employees vs. "hire-and-fire" |
| <p>4 Technologization</p> <ul style="list-style-type: none"> Collaboration with machines Support through new tools and IT Automatization | <p>8 Changes in performance management</p> <ul style="list-style-type: none"> Higher transparency of employees' performance Higher outcome orientation |

Major chances +

- Increased performance
- Changes in leadership scope
- Relief for leaders
- Shared responsibilities

- Major risks

- Increased strain and stress
- Lack of competencies
- Low willingness and capability to change
- Loss of power and control

Discussion

- Results show that digitization crucially transforms work design and leadership, especially with regard to necessary competencies
- Certain dimensions of work design outlined by previous research (Hackman & Oldham, 1975; Morgeson & Humphrey, 2006) seem to gain importance due to digitization, e.g., autonomy, task variety, complexity
- In addition, new dimensions of work design seem to emerge due to digitization, e.g., acceleration, intensity, teamwork, automatization, insecurity, competition, democracy, flexibility, internationalization
- For leaders, it seems necessary to react to these changes in work design especially by displaying a higher degree of relationship orientation and more participatory influence behavior

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