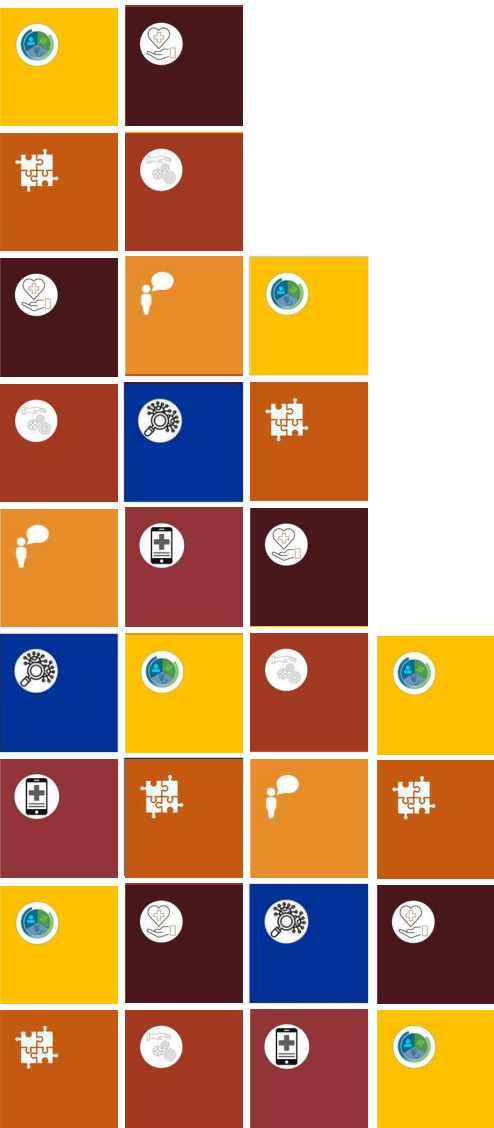# The human side of digital transformation:
Empirical evidence from the Austrian hospital sector

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Background

Digitization represents a major challenge for many healthcare organizations

Digital transformation in healthcare
- changes existing workflows and processes
- creates new information and communication technologies
- leads to a reorientation of current work forms/relationships

Healthcare employees
- need to constantly develop their digital skills
- and change their mindsets

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Study aim

- To investigate how digitization is perceived by employees in the hospital sector
    - What are their expectations, attitudes, fears, and coping strategies associated with digitization?
    - Are there any occupational or generational group differences?

- To derive recommendations for action for hospital managers

Methods

Qualitative study

- Study location
    - **A small private hospital in southern Austria**
    - A large public hospital in eastern Austria (forthcoming)

- Investigation period: 29.10.2019 - 14.11.2019

- Data collection methodology
    - 6 individual interviews with the top and middle management from medicine, nursing, and administration
    - 4 focus groups with 5 to 8 employees from various disciplines
    - Walking interviews
    - Document analysis

Results

Perceived rapid digital change in the hospital sector by shaping the future of healthcare delivery

Employee attitudes
- Perceived advantages and disadvantages of digitization
- Positive proactive attitude when benefits are visible
- Inevitability of digital change
- Limits of digitization
  - Interpersonal relationships
  - Individuality of the patients

Results

Perceived advantages

- Process optimization and work relief
    - Digitally supported routine activities → Concentration on the core task
    - Standardized procedures
    - Productivity increase
- Digital documentation and communication
    - Higher transparency and traceability → Avoidance of errors and conflicts
    - Location-independent, rapid provision of information
    - Possibility of data evaluation
- Higher quality of care
    - Higher patient safety (medication, etc.)
    - Improved decision making

Results

Perceived disadvantages

- Increased process speed and work intensity
- Increased documentation effort
- Increased control/surveillance
- System dependency (susceptibility to errors)
- Continuous availability
- Possible health risks (eye and posture damages, etc.)
- Possible rationalization measures (administration area)
- Continuous acquisition of digital skills under time pressure

Results

Greatest fears among the workforce

- Increased monitoring, system failures and data loss
- Increased workload and stress
- Increased rationalization and personnel reduction (administration area)
- Dehumanization of the organization

More fears and resistance among the older generation
and medical profession ('digital aborigines')

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Results

Employee coping strategies

- **On the individual level (dominant)**
    - Learning by doing
    - Exchange of knowledge and information in the team
    - External further IT trainings (seldom)
    - Hold out until retirement

- **On the organizational level**
    - Noticeable support from the management
    - Provision of IT equipment and IT support
    - Internal program trainings and introductions
    - External further IT trainings (seldom)

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Discussion

Recommendations for action for the hospital management

- Promotion of a more human-centred digital strategy
  - Reduction of fears and resistance among the workforce
  - Visualization of the benefits of recent technical developments
- Expansion of IT equipment and IT support
- Continuous promotion of employee digital skills
  - Structured program trainings and formal further training offers
  - Selection of suitable learning settings/formats (e-learning formats)

Digital change should support employee skills and their everyday professional life, rather than giving them the feeling of being monitored or replaced

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