

Digital Technology and Work Impact in Administrative Jobs

“Tasks disappear, tasks change and new tasks emerge”.



“It will have an impact on 100,000 municipal jobs.”

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Structure



- Research question & Hypothesis
- Theory & Perspective
- Design
- Findings & Conclusions
- Discussion & Future Research

Research question



How are administrative jobs and tasks developing when a DMS/ACMS* enters the municipality?

in particular:

which stakeholders are involved in the decision-making process and what can be said on employment effects?

* Document Management System/Adaptive Case Management System

Hypothesis



If considerations & intentions about employment are an integral part of the decision-making process for a new DMS/ACMS & **if** relevant stakeholders are involved, **then** undesirable employment effects become visible earlier and interventions can be deployed more timely and more effective.

Theory & Perspective I



DIGITAL TECHNOLOGY & EMPLOYMENT

MACRO:

Job polarization (Goos & Manning, 2007)

47% of US employment is at risk

(Frey & Osborne, 2013)

9% of jobs are automatable."

(OECD Arntz et al, 2016)

My perspective:
organization
MICRO

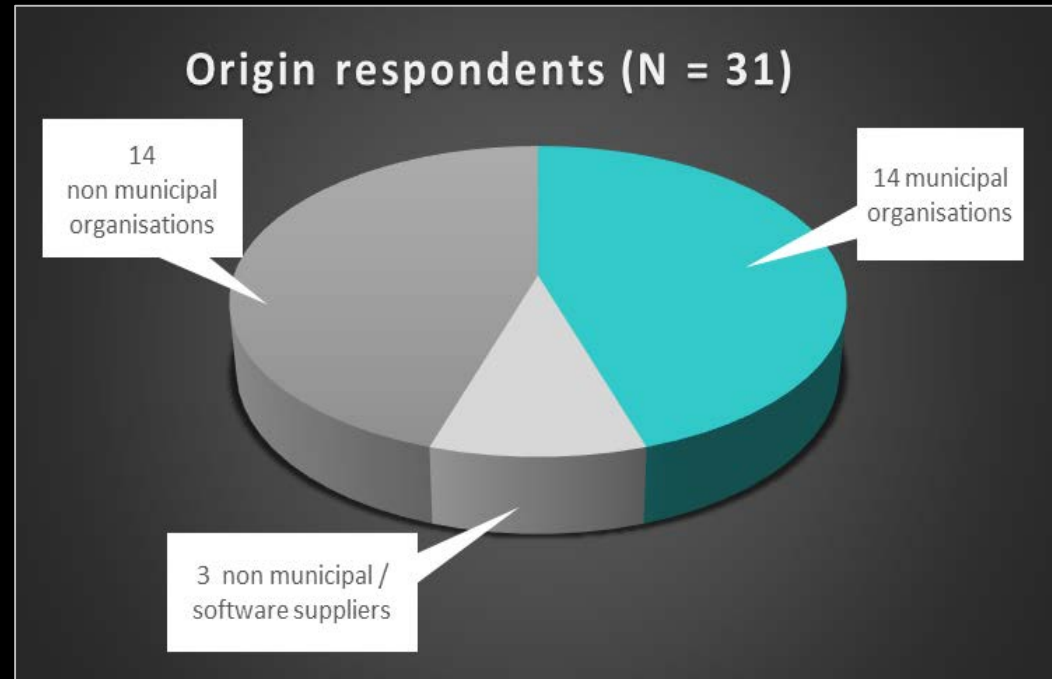
Theory & Perspective II



- Employment: Administrative jobs
- Organizational level: Municipality NL
- Work process: Information Management and Archive
- Digital Technology = Document Management System or Adaptive Case Management System

Design

- Qualitative study: 31 interviews + Delphi method
- Managers, professionals & scientists
- On the topic of a (new) DMS/ACMS
- In the municipal work process 'information management and archive'



Findings I - Stakeholders



Preparation →	Implementation→	In Operation
ICT, Record/Archive Manager, Information Management (in addition finance, other managers and end users are involved)		Professionals to help employees to apply the new systems properly (user instruction).

- No one spontaneously mentioned HRM/OB as a stakeholder involved
- When asked specifically for 'stakeholders not involved', the works council & HRM/OB were mentioned explicitly

(by all 3 suppliers, 4 municipal (project)managers, 1 external HRM)


Findings II – Employment



- None of the respondents mentions 'Employment' as a subject that is addressed at any point in the decision-making process
- Many respondents (N = 27) mention employment effects of a (new) DMS/ACMS

Findings III – Task shuffle Postal worker

(rough approach)

2015	2020	2030	Work Impact
External physical mail	External physical mail	Only digital mail	 <p>These tasks of the administrative employee are gone</p>
Task 1 Opening the post	Tasks decrease dramatically because increasingly less physical mail arrives	Task are gone because there is no more physical mail coming in.	
Task 2 Split to register y/n			
Task 3 Non-registration (direct to person/department)			
Task 4 Scan and register in IT system			
Task 5 Physical document afterwards to (professional) department			
	Task 6 Registering (choosing a code for information & registration management)	Task is disappeared because title/label is automatically assigned	Task emerged and disappeared in the job of a professional employee
Task 7 Action by recipient	Unpredictable (depending on the specific work process)	Unpredictable (depending on the specific work process)	Unpredictable (depending on the specific work process)
	Task 8 Digital archiving (choose archiving option)	Task is disappeared because archival code is automatically assigned	Task emerged and disappeared in the job of a professional employee
Task 9 Physical document in archive	Task decreases dramatically because increasingly less physical mail arrives	Task is disappeared because there is no more physical mail coming in.	This task of the administrative employee has disappeared
Task 10 Physical document from archive to large archive elsewhere	Task decreases dramatically because increasingly less physical mail arrives	Task is disappeared because there is no more physical mail coming in.	This task of the administrative employee has disappeared
	Task 11 Audit (data scientist examines process periodically for improvement and to provide policy information)		New task for new employee with higher IT-related education

Findings IV – History Information Management and Archive (Delphi method)

<i>Paper</i>	<i>'stupid' Digital</i>	<i>Smart Digital</i>	<i>Data Driven</i>
No software	Mail/archiving system	Ad. Case systems	AI/Big data/Blockchain
Typist, Archivist	Postal employee, Registrar	Record/archive manager	Ad. Case System Employee Info Coach, Data scientist
Postal process, Administrative skills	Postal process, basic Adm. Computer skills	Digital & specialist applications, Metadata	Complex digital applications
Precise, detailed, solistic, routine	Fast, cooperative generalistic	Communicative Consulting	Networking Helicopter view
Unskilled, primary /secondary vocational	Primary/secondary vocational ed.	Secondary vocational ed.	Higher (vocational) ed.
1980	1995	2010	2020

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Conclusions I



1. HRM/OB and works council are hardly or not involved
2. 'Employment' is no topic in D-M process
3. Many (including HRM/OB themselves) do see (qualitative) employment effects
4. In the elaborated example of the task shuffle of the postal worker, it shows that there is almost nothing left of the initial package/job.

Conclusions II



5. Over the years, the tasks in the work process require different competencies, more IT knowledge and a significantly higher level of education.
6. Absence of experts (e.g. HRM/OB), seems to indicate that only afterwards, when the development has already taken place, HRM/OB specialists are involved or will take the initiative to deal with the consequences.

Discussion & Future Research



- Why are HRM/OB and Works Council absent?
- How can work design be taken into account from the very beginning of digitization?
in order to achieve (again) good performance and safe, healthy, varied and meaningful work for many