



Digital Culture and Learning Culture: An Empirical Analysis of Cultural Change in the German Armed Forces

Prof. Dr. Martin Elbe & Dr. Gregor Richter

Zentrum für Militärgeschichte und Sozialwissenschaften der Bundeswehr
Zeppelinstr. 127/128, 14471 Potsdam
Germany

martinelbe@bundeswehr.org



Study on Digital Culture

Digital culture refers to the way the members of the Bundeswehr deal with the requirements, opportunities and risks of digitization on the basis of a common understanding. Part of this is the digital self-image, which describes the awareness of the changes that accompany the digital transformation.

Population:

All members of the Bundeswehr Juni 2020: 264.904, of which 178.049 (= 67 percent) do have an individual e-mail-account (= selection population).

Sample:

1.997 usable questionnaires. Return quote: 20 percent.

Survey method:

online survey with a single topic

Survey period:

16. September bis 9. Oktober 2020.

Survey:

ZMSBw

Concept, questionnaire and analysis:

ZMSBw, Department of Military Sociology.



Learning culture - target/actual comparison

To what extent are the following points in your daily work fulfilled from your point of view?	M(actual)	M(target)	M(actual)-M(target)
(3) to be able to work with state-of-the-art IT	-0,19	0,70	-0,90
(8) constantly learning about new technologies	-0,22	0,34	-0,56
(4) to be able to regularly participate in further education and training	0,10	0,64	-0,54
(7) to be allowed to try out things or make mistakes	0,10	0,62	-0,52
(11) to have superiors who promote IT-supported working methods and means of communication, and apply them themselves	0,06	0,58	-0,52
(10) to have supervisors who actively promote learning processes	0,16	0,66	-0,51
(5) to be able to plan and decide independently	0,22	0,68	-0,46
(9) to be able to contribute innovative ideas and suggestions	0,06	0,49	-0,43
(1) engage in a challenging and interesting job	0,34	0,72	-0,38
(6) to be able to learn continuously in the work process	0,21	0,58	-0,37
(2) to be able to frequently take on new tasks	0,16	0,36	-0,20

Notes: Range M: [-1, 1]. Subtraction was done with values that were not yet rounded. Database: ZMSBw Bundeswehr survey on digital culture 2020 (Richter/Elbe 2021).



Impact of digitization on learning culture

	Please assess digitization in the Bundeswehr. Use the boxes in between to grade your answer. Digitalization ...					
	1	2	3	4	5	
is suitable for making the Bundeswehr more efficient.	48	32	13	5	1	is unsuitable for making the Bundeswehr more efficient.
helps the Bundeswehr to better fulfil its tasks.	40	38	17	4	1	does not help the Bundeswehr to better fulfil its tasks.
motivates me in service or at work.	29	33	30	6	2	demotivates me in service or at work.
leads to less bureaucracy in the Bundeswehr.	22	17	28	20	13	leads to more bureaucracy in the Bundeswehr.
helps to actively share and maintain knowledge.	41	36	18	5	1	does not help to actively share and maintain knowledge.

Notes: Percentages, red line shows Means. Individual percentages sometimes do not add up to 100 percent because they have been rounded. Database: ZMSBw Bundeswehr survey on digital culture 2020.



3 Forms of Efficiency

1. Organizational efficiency: This refers to aspects for the work process or the organization of the Bundeswehr as a whole.
2. Social efficiency: it concerns individual and group Enhancements.
3. Change efficiency: It refers to the potential for change of digitization.



Advantages - Quotations

"A big advantage is the possibility of working from home and the resulting flexibility to achieve a better work-life balance." (No. 644)

"Keyword attractiveness! From my point of view, digitization can help to make the Bundeswehr more attractive as an employer. The greater flexibility and independence of fixed workplaces or locations can contribute greatly to this. The acceptance and will of superiors and structural planners to use these opportunities is crucial. The increased deployment of offices and command authorities 'across the board' is a core element in exploiting the full potential of digitization." (No. 74)

"Finally to get rid of analog THINKING. To have the opportunity to work no matter what time or place. It would be nice if every soldier had his own IT device." (No. 92)

"Which digitization?" (No. 207)



Category system for the advantages of digitization

Advantages of Digitization

Organizational Efficiency

More flexible working

Work more efficiently

Information more readily available

Less administration

Time saving

Less paper

Less travel

Error reduction

Quality

Continuous improvement

Social Efficiency

Increased employer attractiveness

Working at home

Work-life balance

Better collaboration

Mobile working

Opportunity for further training

New post

Change Efficiency

Pandemic management

Uncertainty

Odds

No more analogue thinking

Innovation

New technology

Notes: Category system for the question "Please indicate in free choice of words what advantages digitization in your direct working environment had or is likely to have for you" due to globalization and categorization. Database: ZMSBw Bundeswehr survey on digital culture 2020.



Disadvantages - Quotations

"– Older people are often not holistically trained in the systems
– Processes are not processed holistically/incompletely" (No. 21)

“– Dependence on digital technology
– Pressure for faster work
– Expectation from superiors that everything must/should go faster
– the danger of 'digital dementia'" (No. 54)

"So far, the only disadvantage is that not all users are convinced of digitization and thus of almost paperless processing and retain 'old' process patterns." (No. 121)

"Which digitization?" (No. 207)



Category system for the disadvantages of digitization

Disadvantages of Digitization

Organizational Efficiency

More bureaucracy

More work

Duplication of work

Variety of

Communication channels

Too much information

Isolated solutions

Scope for interpretation

Standardization of processes

Lack of transparency

Loss

Lack of functionality

Technology dependency

Social Efficiency

Lack of leadership

Lack of training

Lack of military training

Lack of working time regulation

Training costs

Job losses

Loss of social contacts

Loss of autonomy

Intensification of work

Dehumanization

Home office as an excuse

Mixing of official matters
and private life

Change Efficiency

No disadvantages

Rethinking

Resistors

Old Hardware

Different

Introduction stands

Introduction turbulence

Loss of analogous processes

Notes: Category system for the question "Please indicate in free choice of words what disadvantages digitization in your direct working environment had or is likely to have for you" due to globalization and categorization. Database: ZMSBw Bundeswehr survey on digital culture 2020.



Concept „Digital Culture“

Digital Mindset

Category

Digital Environment



MAI	affirmative to innovation	EAI
MAT	affinity for technology	EAT
MA	agility	EA
MPR	personal responsibility	EPR
MRJ	risk joy	ERJ
MAC	awareness of change	EAC
MCN	collaboration/networking	ECN
MDL	digital leadership	EDL
MSA	security awareness	ESA
ME	ethics	EE



Self-Conception of Digital Culture

Keeping the overall situation in your working environment in mind: To what extent do the following statements on digitization apply today?	This statement is largely true for my working environment.	The statement is more true for my working environment.	The statement applies partly to my working environment.	The statement does not so much apply to my working environment.	This statement does not apply to my working environment.	<i>I don't know /missing</i>
1. My comrades and colleagues are, by and large, open to new technologies.	23	40	29	6	2	29
2. My comrades and colleagues by and large, recognize the opportunities that arise with digitization.	19	33	35	9	3	32
3. The Bundeswehr provides the prerequisites and the necessary technologies and tools for work that is continuously adapted to new framework conditions.	5	17	39	25	13	30
4. The existing procedures and structures support my comrades and colleagues in using their room for manoeuvre and making decisions on their own responsibility.	9	26	39	18	8	34
5. My comrades and Colleagues try to exploit the potential of digital technologies in their own working environment in the sense of a "culture of doing"..	14	30	32	16	7	36
6. Existing workflows are continuously questioned and based on opportunities for improvement have been examined	8	18	33	25	14	28
7. Digitisation promotes networking and cooperative cooperation within the Bundeswehr.	26	35	26	9	4	29
8. Superiors in my work environment recognize the potential of digital technologies, promote their use and lead by example..	12	25	33	19	11	30
9. The protection of IT and the guarantee of information security have priority in my working environment.	35	38	18	7	2	28
10. The human being is at the centre of our on democratic values based digital change process in the Bundeswehr.	14	24	34	18	10	40

Notes: Percentages. Individual percentages sometimes do not add up to 100 percent because they have been rounded (value columns 1 to 5). Database: ZMSBw Bundeswehr survey on digital culture 2020.



Knowledge in Organizational Culture

1. Directory knowledge:
causal-analytical attributions and expectations about relationships and courses of action;
2. Recipe knowledge:
normative attributions as the hypothetical basis of action knowledge;
3. Dictionary knowledge:
descriptive categories for objects and facts;
4. Axiomatic knowledge:
underlying assumptions that create value.

Sackmann 1991, Elbe 2002



Concept „Digital Culture“

Category

Organizational Knowledge

affirmative to innovation
affinity for technology
agility
personal responsibility
risk joy
awareness of change
collaboration/networking
digital leadership
security awareness
ethics

Recipe Knowledge 1
Dictionary Knowledge 1
Recipe Knowledge 2
Axiomatic Knowledge 1
Axiomatic Knowledge 2
Directory Knowledge 1
Dictionary Knowledge 2
Directory Knowledge 2
Recipe Knowledge 3
Axiomatic Knowledge 3



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Thank you!