The blind spot

Why digital transformation processes usually come to grief on organisation – and what can be done about it

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Lights!

Today, Kodak's decline into insolvency is deemed to be a prime example of a company that failed to adapt to digitalisation (Lucas/Goh 2009). In the early 1970s, the camera giant and market leader in photographic technology dominated the US market for photographic film and cameras with a market share of 80 percent. In 2003, the company announced a digital-based strategic redesign intended to counteract the slump in the classic photo business. Less than 10 years later, in January 2012, a success story that had endured for more than a hundred years ended: Kodak filed for insolvency in the USA.

But it was not technological challenges that led to the former market leader's downfall. In actual fact, Kodak was a pioneer of digital photography, holding many developments and patents. Kodak came to grief on the same organisational challenges as are faced by other companies in the course of a digital transformation: successful transformation was prevented by a rigid, bureaucratic organisational structure, rigid middle management and an organisational culture rooted in tradition.

Digitalisation has taken on even more significance and speed since then. Our technological capabilities have grown enormously and with them the pressure to use them intelligently to face up to competition. Surprisingly, the biggest hurdle is still the same: all too often, digital changes are only considered from the technological side – and their impact within the organisation is overlooked. The emerging dynamics, shifts in the balance of power, who has what interests in the new organisation remain in darkness with monotonous regularity. These are the blind spots of digitalisation.

In good times, these blind spots result only in missed opportunities or a slowdown in change processes. In bad times, on the other hand, they lead to conflicts and resistance in the organisation – and to the failure of digital transformation projects.

Our aim with this paper is to help switch on the light, to illuminate the blind spots of organisations in transformation. We will direct our searchlight to the four areas which make or break any digital transformation: decision-making structures and leadership, organisational culture, micropolitics and innovation.

However, we don't intend to leave it at that. Together with brand eins, we are also initiating discourse and will focus in various formats on the pertinent questions: How do data change the decision-making processes in the organisation? How can people be prevented from sabotaging the new structure? How do you make opponents into allies? What power games are played – and why?

Now that presumably every organisation has had experience with digitalisation projects in the last few years, following the hype and the technological promises, following the initial enthusiasm and phases of euphoria, disenchantment has set in on the corporate front. The time is now ripe for a second, more mature approach. Let's get started!

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the decision
and who
knew about it?

1 Decision-making structures and leadership

When you start wondering what digital transformation in organisations can mean in concrete terms, you'll find yourself confronted by a whole spectrum of projects: using digital applications to centralise order processes in purchasing, or to track supplier performance in real time. Or possibly download relevant information about machines to maintenance staff in a factory by means of augmented reality glasses or – if that doesn't help – connect them to experts. It could also be a matter of making organisational decisions more data-based, for instance when algorithms assign insurance categories or credit ratings to customers. For all their variety, these examples have one thing in common. They're all intended to digitalise formal structures: decision-making programs and communication channels in the organisation.

In digitalisation projects, the potential impact that this step may unleash and how far-reaching changes in the organisation may be when established decision-making structures are challenged is frequently underestimated. Whether this will happen and in what way is a key question that should be asked at an early stage in change processes. We will take a closer look at the especially relevant effects in this chapter.

Organisational decision-making structures and leadership

In organisational sociology (Luhmann 2000; Kühl/Muster 2016), a distinction is made between three types of organisational decision-making structures (also: decision premises).

Decision-making programs act as »criteria for correct decision-making«. They determine consequences that must follow previously defined conditions (conditional programs). Or they formulate intended impacts and leave the choice of means relatively open (goal-driven programs).

Communication channels distribute responsibilities and decision-making powers, and determine who is authorised to give instructions to whom and who has to report to whom. The human resources consist of the actual decision-makers who, with their specific competency profiles and decision-making styles, give each job description a relatively stable individual touch.

Decision-making structures fulfil three important functions in organisations. They provide orientation for a multitude of future decisions; they establish the main focal areas of relevance; and they make it possible to attribute successes and failures to their sources.

At »critical moments« – in situations for which there are no formal decision premises, in which such premises conflict or in which they simply don't provide adequate orientation – a need for leadership arises. This orientation is not necessarily provided by hierarchical superiors. Employees can just as easily take the lead on behalf of each other if they successfully create a followership for their claim to leadership. Whether such an initiative is successful depends largely on whether the person has sufficient leadership resources (Muster et al. 2020).

Digitalisation switches the formal structure to active mode

The first effect concerns the crucial question of what is actually right or wrong in an organisation. All organisations have a set of formal rules on which decisions have to be based – in sociology they are called »decision-making programs«. You have somewhat painful experiences with these as a customer, for example, when you come up against public authorities which only process applications if complete documentation is submitted. But internal organisational rules, for example for assessing the risk of possible investments in venture capital firms or staffing shifts in an emergency department, are also decision-making programs. They simplify the situation for the members of the organisation who have to make a decision – because they don't have to spend a great deal of time considering, but only have to check whether the rule in question applies. At the same time, decisions become predictable for all those involved; they know how things have to be done, which facilitates coordination within the organisation. The bottom line is that decision-making programs ensure that decisions can be made quickly and reliably: identical cases are decided in the same way.

This regularity also makes decision-making programs a natural subject for digitalisation initiatives, especially when a company goes in search of steps suited to automation. This is especially true in the case of (watch out, sociological jargon coming up!) conditional programs. These are decision-making programs which function according to an »if-then« logic and therefore already track the way algorithms work. In this case translation to the digital world isn't a major step. Furthermore, decisions that can be made using conditional programs usually occur en masse. So by automating them, you can achieve a significant efficiency gain.

Efficiency gains come at a price

However, the efficiency gained by using decision-making programs also has a downside: it costs you flexibility. You lose sensitivity to the context in which a decision is made. This becomes particularly evident when they are compared with non-digitalised decision rules. These are formally binding: those who violate them can be sanctioned, possibly even dismissed from their job. Nevertheless, in everyday organisational life situations constantly occur in which a »blind eye is turned« and the most favourable interpretation of the rules is sought. For example, an important customer with whom you have a long-term business relationship may sometimes be granted an additional discount that is actually against the rules, or a workshop may order certain spare parts for stock in contravention of the rules in order to be able to use them quickly if a repair is needed. People in organisations use creative scope. Whether an »if« is followed by the formally expected »then« or something else cannot be completely determined in reality.

In the course of digitalisation, however, the »if-then« sequences are hard-coupled. Algorithms don't turn a blind eye, they always follow their code. This means that decisions are made more reliably to some extent, the »disruptive« human element is taken out of the equation. At the same time, however, the organisation deprives itself of the option to adapt its decisions to individual situations. If exceptions are no longer possible for technical reasons – such as fixed prices in the ERP system or automated ordering processes – they cannot be made even if such exceptions would make sense for the organisation – for example when unexpected situations arise. In such cases, it can be extremely useful to use discretionary powers, briefly forgetting rules or applying them flexibly. However, these ambiguities cannot really be transferred to the digital world because they depend on people.

Although some exceptions could be transferred and mapped digitally, occurrences that previously only arose and were discussed on a case-by-case basis would then be elevated to a new option which would be available at all times. The exception would no longer be an exception. All that would remain would be one more option in the program. If the next case called for a different form of spontaneous exception, it wouldn't be possible. If it isn't foreseeable, it can't be digitalised.

It is therefore critically important for organisations:
to be clear right at the planning stage of digitalisation projects
about what potentials for flexibility will come under pressure as a result
of which specific digitalisation measures.

This means:

1. You have to look very closely at which personal decision-making spaces will be closed by technification,
2. You have to consider in advance which of these spaces you can actually do without (or which may always have been undesirable),
3. You have to decide which spaces should be retained and
4. You have to ask where new spaces need to be created.

Digitalisation creates new coordination and leadership requirements

However, digitalisation doesn't just switch the existing formal structure to active mode. Digitalisation initiatives often go hand in hand with alterations to the formal structure, or they necessitate such alterations. This becomes particularly evident where digitalisation efforts are coupled with efforts to introduce so-called agile ways of working.

Such couplings occur frequently and in a way they are the obvious thing to do: on the one hand, agile working methods arose in the context of software development (Lukas 2021), so this common history alone inevitably involves a certain close relationship between the issues. On the other hand, post-bureaucratic and agile ways of working also promise to achieve at the organisational level what digitalisation promises to deliver at the technological level: greater speed in data and information processing, shorter decision-making times and therefore ultimately increased efficiency (Muster /Bull / Kapitzky 2021). Moreover, digitalisation initiatives cannot usually be implemented by one division alone. Instead, they depend on cross-functional and cross-divisional cooperation. Here, too, agile processes promise to provide structural security in often unaccustomed collaborations.

Such restructuring, combined with the reinforcement of employees' autonomy and personal responsibility, does not normally take place simultaneously throughout the entire organisation. Much more frequently, appropriate digitalisation and agilisation initiatives are started in one or a few organisational areas – with the option of expanding them to others if successful. New leadership requirements arise from this asynchronicity: on the one hand, the agile units have to be protected from interventions by the main organisation (Grossjohann / Harms 2021), but at the same time the agile and digital organisational areas have to be connected – somehow – with the rest of the organisation and its »old gamerules«.

It isn't only official leaders who take the lead

Against this background, the challenge is to work through the arising coordination needs and enable communication between the two »worlds«.

There are two potential candidates in particular: on the one hand, more emphasis can be placed on leadership. Thus, instead of prescribing fixed decision-making structures, the organisation can accept that more critical moments will arise in which it will have to seek situational solutions and struggle to find orientation. In these cases, leadership is needed. It needn't be top-down, but can also operate laterally or bottom-up. It won't be only the official leaders who can take the lead.

On the other hand, organisations can also set up specific offices for coordination and integration tasks. Interface points of this kind (Luhmann 1964: 220 ff.) are characterised by the fact that they are familiar with the different demands and limitations of both worlds and can act as translators, so to speak. They provide the main organisation with an understanding of the agile units' needs and buffer excessive restrictions on autonomy. At the same time, however, they also represent the demands of the main organisation in the agile areas and thus prevent the complete decoupling of the agilised parts of the organisation.

It is therefore critically important for organisations:
to think ahead in a structurally intelligent way about the new leadership and coordination needs which often arise with digitalisation.

They need to do the following:

1 Understand what information needs to be communicated and / or protected at interfaces between agile and non-agile units,
2 Anticipate emerging leadership needs at an early stage,
3 Think ahead about which employees will probably have to assume leadership in the future,
4 Equip these people with the necessary management resources to enable them to fulfil these new leadership tasks.

Digitalisation narrows perspectives

The next effect we want to describe focuses, if you will, on focus. The formal structure of an organisation does more than just regulate the power to give orders and provide criteria for correct decision-making. It also implicitly determines what kind of information the organisation considers relevant. Everything that does not fit into the template of the organisation's own programmes becomes irrelevant.

In a building application, for example, the distances to neighbouring properties are of the utmost importance, they are requested as part of the application process. The fact that the owner's children love to swim, however, is not taken into account in the decision on whether to approve the garden pool he has applied for. The authority takes no notice of this information whatsoever (it actually can't) because it is not relevant to the underlying question for the program that is running: »Is construction permissible, yes or no?« – and therefore there are no form fields for it.

In this way, the formal structure influences what an organisation scans the world for and what image it forms of it. What applies to people's senses applies similarly to organisations' formal structures: the organisation can only see what it allows itself to see (Kette 2018b: 64 ff.).

With digitally generated data, it becomes even more difficult for organisations to see things or problems that they have not asked about. This is partly because digital data form a construct of reality rather than a reflection of objective reality. What this construct looks like depends very much on the basis and the rules by which the digital data are generated.

Now you see it, now you don't

For example, when digitally supported selection procedures are used in recruiting, the programs used need precise explanations of how to recognise suitable candidates. One possibility may be to filter applications or career portals by keywords such as academic degrees gained, professional experience, specialist knowledge, wording in the cover letter. Anyone who does not fit the matrix is deemed unsuitable and will not be considered.

This may be useful for handling a huge volume of applications. At the same time, however, using this approach also risks being unable to spot potentially interesting applications simply because the applicants have selected formulations that did not suggest themselves to the organisation. The data generation method (in this case the filters) is not called in question until it becomes clear that something is wrong, and the data set under review is changed.

As soon as the issue becomes surveys, measurements and forecasts rather than just filters, digitally generated data become arguments that radiate authority. Machine-generated results and quantified data in particular come with the expectation that they represent the real world in a particularly precise and undistorted way (Heintz 2010; Hacking 1982). Once a survey, a customer poll or the expected success rates for a new product are available, these data are considered to represent the truth until further notice and are very difficult to challenge. You either need data of your own that show a different reality, or you have to cast doubt on the data generation method.

The organisation may then have a more accurate picture of the world, but that then makes it even more difficult to rock the boat later. This situation poses a problem for innovative projects and agile settings in particular. At all events, the availability of digital data does not foster »thinking outside the box« – frequently called for but very rarely achieved – because the latter thrives on departing from the organisation's horizon and established approaches. But why would you want to do that when the reality has already been measured and its potential described?

It is therefore critically important for organisations:
To find an antidote to blindly following data.

Here's what they need to do:
1. Educate themselves about the background assumptions inscribed in the digitally generated data,
2. Undertake targeted development of organisational mechanisms and structures which will still enable alternative interpretations to be heard in the future, so as to prevent the company from narrowing its own perspectives and to allow it to remain agile despite digitalisation.

Digitalisation curtails responsibilities

Every time something goes wrong in an organisation, the inevitable question arises: »Who took this decision and who knew about it?« The search for the culprit is duly launched. Whether they're pursuing a well-intentioned endeavour to get to the root of a problem or merely an exercise in scapegoating, organisations have a great need to be able to assign responsibilities (Kühl 2020; Kette 2018a).

This process is largely enabled by formal decision-making structures. Events and developments can only be attributed to individuals because both line and functional responsibilities are formally laid down in the communication channels (who takes care of what and reports to whom?) and because, in addition, the decision-making programs formulate binding criteria (how are tasks processed?). Blame immediately springs to mind – but success is attributed in the same way, of course.

The old question of »Whodunnit?« is cast in a new form

In principle, these mechanisms are still effective in the context of digitally transformed organisations. However, the opportunities to contribute personally to a decision are visibly becoming thinner on the ground. When data are generated and processed automatically, and possibly even produce a decision directly, there are quite simply no humans present to promote or fire for the consequences of these decisions. This applies even more to self-learning algorithms. When these are used, it becomes almost impossible to trace how the output was created in the first place. The most that can be done under these circumstances is to hold either the company behind the software or the users of the digitally generated data accountable.

This shortage of accountable people or departments becomes problematic for organisations at the latest when they have to answer for decisions to third parties. Personalisation of responsibility is a key mechanism to protect the organisation from blame by the public, the media or the courts (Kette 2014). As personal decision-making contributions are reduced in the course of digital transformation, the chances of personalising responsibility obviously also become scarcer. The glory then goes to the organisation itself, but so does the blame.

It is therefore critically important for organisations:

To develop strategies that will make it possible to attribute responsibility even after the digital transformation.

This may then mean:

1. Designing communication channels in such a way that personal responsibility, i. e. accountability, is also defined for technically generated data,
2. Or integrating the technical data with the organisational decision-making programs in such a way that accountabilities can be derived from the individual organisational decision-making programs.

Case study

The dream of programmed sales

What's the background?

At the top of the hierarchy of a pharmaceutical company, suspicion of the company's own sales function is growing. It forms the key interface with the hospitals and medical practices – and yet seems to be in a world of its own. Against the background of intensifying competition and increasingly complex offerings, a new CRM system is introduced. It meticulously pre-structures the course of a sales or advisory discussion, saves details of how the appointment actually went and makes suggestions about what might interest the people responsible for therapies. The system is being represented to the sales force as a service to make life easier for them – but the interests of data collection and transparency are also being pursued.

Where does conflict arise?

Conflict arises because this is not just a matter of using new software. It also means a major change in the sales staff's day-to-day routine. The Executive Board's notion is that nothing more than the new CRM system is needed for that routine. After all, it provides very tight conditional programming for every sales and advisory meeting. To ensure that the sales department is basing everything exactly on the CRM and every work process is logged, all employees are given new tablets. They have only one program installed: the CRM. Everything else is now blocked or can only accessed via the browser, a cumbersome process. For the employees, this is invasive and overbearing and is also out of touch with their everyday work. Idle or waiting time can no longer be usefully employed for emails, meetings or invitations.

How can this conflict be resolved?

Both sides needed to be willing to compromise here: the hierarchy had to understand that everyday work in sales couldn't be hard-coded into a system. Illegal behaviour was not automatically involved when an action couldn't be formally mapped. Because digitalised conditional programs are very bad at handling unforeseen circumstances and spontaneous ideas. These elements are definitely needed, however: it is not illegal to use them, but highly functional – yet impossible in a restrictive CRM.

It had to be made clear to the sales department that bundling all data in one tool had major advantages for their work as well. Previously, they had to make do with Excel lists and memory – and further recommendations were a matter of luck based on knowledge of the current portfolio. A CRM could help wonderfully with both issues. Undeniably, they would have to surrender control of their special knowledge. However, this is not something that they could openly criticise.

Is transparency really ideal for a vibrant organisational culture?

2 Organisational culture

As a rule, a digital transformation always begins and ends with an organisation's formal structure. However, it also changes everyday routines, influences the question of what unwritten laws apply and how collaboration can work well… In short: every digitalisation programme also affects the informal side – that is, the organisational culture. And not only that: the formally proclaimed goals and the actions taken are observed and evaluated on the informal level. How the digitalisation project is discussed on the grapevine is at least as important to its success as the official evaluation at board level.

Because normally, all the informal practices in an organisation – evasions of red tape, routine shortcuts in processes – serve as an important lubricant in the workflow. The informal expectations among employees make up the culture of an organisation, and provide orientation or open up opportunities for action where the formal decision-making structure is too sluggish or inflexible. They also help in situations for which no formal rules have been laid down. How important these activities are is made clear by the fact that virtually any organisation would grind to a halt if it got »service by the book«.

To be able to fulfil this lubricant function, organisational culture is tied to some structural prerequisites. These are often threatened by digitalisation processes in two ways: on the one hand, digitalisation creates new transparencies and, on the other hand, it reduces spontaneous opportunities for contact in the analogue world. At the same time, however, digitalisation also creates a need for new informalities. What are the implications for successful transformations? Coming next.

Organisational culture

In research, organisational culture (Luhmann 2000; Kühl 2018a) means informal expectations. In other words, those evasions of red tape and unchallenged, ingrained assumptions as in »that's just how it's done here« which are not covered by the formal structure. Organisational culture does not develop by decree, but as distilled practice over time. It therefore cannot be created directly, at best attempts can be made to influence it (Kühl 2018b).

Its organisational function is to provide orientation where gaps occur in the formal structure, speed up decision-making processes and increase the organisation's flexibility. Where informal action violates the formal structure but is nevertheless of service to the organisation, it is "useful illegality" (Luhmann 1964; Kühl 2020). Organisational culture relies on a certain degree of protection from observation (latent protection) and therefore usually develops along the boundaries of cliques, groups or departments. An organisation therefore does not have one single organisational culture, but several, which may also be in conflict with each other.

Digitalisation creates new visibilities

Transparency is considered to be a desirable ideal in our society. It is also considered to be a value for organisations to strive for – those who prefer to keep interrelationships opaque have to justify it (Ringel 2017). Digitalisation makes it easier than ever before to understand and therefore reveal structures and working relationships – which at the same time increases the expectation that this potential will be used. That is the case in society, but C-suite executives in organisations also hope that digitalisation will help them to gain a better insight into their operational processes. Transparency is good – people can rally behind it.

However, the opposite is true of a vibrant organisational culture, which actually depends on being not publicly known, or rather only publicly known to the organisation. All manner of expectations that only exist informally and are not covered by the formal structure cannot be discussed openly if they are to continue to function. Typically, there is no single culture in organisations, but several subcultures defined by clique or departmental boundaries. Above all, actions that are expected internally but infringe the formal order are better kept under wraps – even if these workarounds and other exceptions may serve the organisation as useful illegalities (Luhmann 1964; Kühl 2020). Some secrecy is therefore fundamental to any organisational culture.

Informality thrives in hidden places

In the process of digitalisation, however, established informal practices often come under pressure. For example, where people informally add post-its to formal file entries. Things also become more difficult in cases where it used to be possible to withhold information or emphasise special urgency at times. For example, it can be helpful for a person in sales to tweak offers informally to make concessions to a customer's wishes without disclosing it to the production staff – who may then complain about the illegitimate promises the sales force has made, which they yet again have to pay for.

So when it comes to being able to attribute responsibilities, the increase in transparency is certainly a useful development. And from the point of view of time saving, the automation that it enables promises benefits. The dysfunctionality, however, lies in the fact that scope for informalities may be destroyed – because even if the rule-breaking is useful for the organisation, the members have to reckon with formal sanctions if their misconduct becomes evident due to the added transparency. They will therefore either stop using informality to »lubricate« the organisation's processes – or they will have to look for elaborate, similar detours which are time-consuming and cumbersome.

It is therefore critically important for organisations:

To incorporate this downside of automated digital data collection and file production in their thinking and to consider their own informal blind spots, which may be worth preserving (Matthiesen/Branovic 2021).

To do this, they have to:

1. Find out which local processes are based on which informalities and
2. Understand what (latent) functions the informalities in question fulfill.

Digitalisation creates new accessibilities – and destroys old ones

One of the most common effects of digitalisation projects is that new communication channels are created. Sometimes this is the explicit purpose of the project, for example, when an Enterprise Social Network (ESN) is set up and digital communication tools such as Messenger services or project management software are introduced. However, even if the creation of new communication channels is not the key motive behind a digitalisation project, new accessibilities sometimes arise – almost »behind the backs« of the employees. If, for example, digital entries by one person automatically lead to the file being transferred to another organisational unit for further processing, this is just a new form of accessibility.

Such transformations are typically »mimics« of the formal communication channels (see section 1.). They can help to distribute information efficiently and quickly within the organisation to the responsible people or departments. At the same time, however, old accessibilities are often destroyed or at least marginalised. The need and opportunities for personal contact are reduced in proportion to the extent to which factual information »travels« automatically through the organisation. This development can be seen as a gain in terms of time-efficient operation. However, the consequences have to be considered as well.

The productive tea-kitchen gossip is at risk

Unlike automated processes, personal interactions are typically likely to cover more ground than just the information in question. The information may perhaps be the reason for the conversation, but more questions can also be raised or more information exchanged. It may appear inefficient when your visit to the office next door leads to lengthy private chit-chat. However, work issues will almost invariably arise on such occasions. People reflect on the results of meetings, discuss problems and trade new ideas. With automated communication, which has to remain neutrally focused, this kind of bonus is not possible. Opportunities for unfocused but practically relevant exchanges are eradicated.

The same effect occurs when digital communication is used to enable remote working. True, colleagues can still be reached for informal discussions at the home office. However, the chance encounters in the tea kitchen or at the photocopier are gone, they cannot be simulated digitally or only in a very wooden fashion. But these are important for raising the general level of information in the organisation, testing out ideas before they are put into the formal decision-making process or developing a common understanding of the multi-dimensional results of the last board meeting.

It is therefore critically important for organisations:
To think ahead about the explicit and implicit effects on the physical contact structure.

This requires clarity on at least three two-part questions:

1. Which previously necessary contacts will be made superfluous by the digitalisation project – and what previously unnecessary contacts will now be needed?
2. Which previously possible contacts will be made impossible by the digitalisation project – and what previously impossible contacts will be possible?
3. What opportunities for casual contact will be eliminated as a result of the digitalisation project – and what new opportunities for casual contact will arise?

Digitalisation creates a need for new, informal workarounds

As described above, digitalisation also affects the form of cooperation on the informal side. On the one hand, switching the formal side to active mode as mentioned above produces an increased need for evasive tactics; on the other hand, the technology itself fosters the emergence of new informalities. Because the digital formality will be as imperfect as the analogue formality which those in charge of implementation are attempting to map, a new need for informal corrections and additions will arise at the same time. However, they will be difficult to implement within the new constraints of the software and tools used. This means that especially creative approaches will be needed when problems require solutions that have not been provided for.

This phenomenon can be clearly observed in practice in customised solutions. It is not uncommon with customising that the technology does not follow the workflow, but that the workflow has to adapt to the technology. In such cases, employees are often observed to be developing informal workarounds to use technology against technology (Mormann 2016). For example, free text fields in digital templates are then used as a substitute for handwritten notes, or paper persistence occurs (Saleem et al. 2011): in parallel with the formally prescribed digital technology, a shadow paper economy emerges to bridge the digital inadequacies.

The double memory is dangerous

The last-mentioned case in particular is problematic for organisations because the endeavour to increase efficiency then mainly increases inefficiency. In addition, when this happens even potentially important information cannot enter the organisational memory because it is kept in more or less parallel private »databases«. This becomes a problem at the latest when people leave the organisation and their successors rely on a digital system that does not paint a realistic picture of the situation.

Such workarounds arise as a consequence of every digitalisation and it is almost impossible to prevent them. It is therefore important to keep a watch on them. However, this is the biggest challenge, because the very fact that they are unknown to the formal structure is a prerequisite for workarounds to function.

It is therefore critically important for organisations:
To consider more than technical aspects and formal process descriptions when introducing digital technologies. They have to observe the practical use and actual application of digital technologies as well.

In this context, it is important that:

1. Not every informal workaround necessarily has to be resolved by a shift towards formality, but
2. It will often prove useful to foster the informalities in an organisationally intelligent way (Kette / Barnutz 2019: 47 ff.).

Case study

Is the new control system destroying the culture of trust?

What's the background?

An IT company has been very successful for many years. The organisation is growing organically: new offices are always set up when individuals take the initiative and there is business to be done. As a result, a large number of heterogeneous organisational »islands« are being developed.

There are no real formal tools for intervention in the »islands« – and such tools are not wanted. Independent entrepreneurship and faith that local expertise will be available to make the best decisions are cornerstones of the culture. The company does very well on this basis, until a new strategic decision is made: it is considered desirable to improve the price-performance level for the benefit of the company as a whole. The market recognises that the quality of the service offered is high – from now on, this is to be reflected in the prices.

Where does conflict arise?

Implementing the strategy becomes the new Chief Financial Officer's main concern. He introduces a new controlling tool in the organisation that is intended to provide the visibility needed to work effectively on margins. This leads to resistance in the »islands«. The offices can no longer take decisions autonomously – their prices at least will now become visible. This ensures comparability and forces the offices to act. On the one hand.

On the other hand, there is a strong belief embedded in the organisation and extending right up to the highest levels which impedes the introduction of the controlling tool: numbers damage organisational culture. People in many parts of the organisation are convinced that datafication of work does not lead to better work, but to worse. Because members would now focus mainly on complying with the relevant metrics, rather than applying their own standards as to what constitutes good work.

How can this conflict be resolved?

The solution is to limit transparency: only the office managers and the organisation's executive board obtain access to the data from the controlling system. The various IT teams are to be able to go on concentrating on their work without being distracted by business pressures. The burden of dealing with the numbers and their consequences will remain with the hierarchy.

These figures will now be discussed in a newly created arena. Activities that were previously bilateral or semi-formal now have a formal framework: a committee made up of office managers and members of the executive board will use the figures to make open and honest comparisons, and to jointly drive the company's strategy further forward.

What do I stand
to gain from
the new situation –
and what do I stand
to lose?

3 Micropolitics

The interaction of the digital transformation with formal decision-making structures and organisational culture as discussed above is rarely taken rigorously into account when digitalisation projects are being planned. However, they very quickly become an issue in the everyday life of the members because they will experience the effects sooner or later, or even anticipate them. Strategic considerations then arise for the various members of the organisation, confronting them with the following question: »What do I stand to gain from the new situation – and what do I stand to lose?«

Digitalisation projects – like all innovation projects – thus always trigger micro-political power games in organisations. In the worst case, digitalisation projects are crushed between the millstones of these power games. However, it is equally likely that skilful negotiation can ensure their success. Therefore, one pressing concern in creating successful digital transformation programmes is to keep a close watch on the micropolitical constellations and they way they shift.

Micropolitics

Micropolitics (Crozier/Friedberg 1993; Küpper/Ortmann 1988) is the term used in organisational research for the fact that organisation members do not gear their actions solely towards the organisation's goals, but also strategically pursue individual interests: they want to build a successful career, receive recognition, make organisational life a little easier for themselves - or even shape the organisation according to their own ideas.

In pursuit of their interests, organisation members use power to induce behaviour in others which these individuals would not have displayed spontaneously. Individual power is fed here by the control of zones of uncertainty: power is held by people who are able to reduce - or increase - insecurity in others, for example by means of their own problem-solving skills, which they may or may not offer. The most important sources of power in organisations include expertise, control of organisational environmental relationships, formal communication channels and formal decision-making programs. Power is often distributed asymmetrically, but only in exceptional cases do individual organisation members have no power at all.

Power games sometimes entail considerable friction losses for organisations. Nevertheless, they can also be functional. They mobilise additional motivation, as a result of which projects may also receive attention for a fairly long time. And they create a need for bartering, ultimately contributing to the integration of the organisation.

Digitalisation shifts zones of uncertainty

Most digitalisation projects centre on data – totally new data that can be generated, collected in significantly larger quantities, processed in a more complex way or evaluated in a more nuanced way by means of digital technologies. This orientation towards data is mostly based on the expectation that using it as a basis leads to more appropriate and efficient decision-making. Large volumes of data, systematically analysed and processed, will produce a more objective picture of reality than individual decision-makers ever could – or so the idea goes.

In fact, however, the data themselves are in many ways the product of decisions, starting with the question of which data are actually considered relevant and therefore gathered. The same applies to the question of how different data are linked and how their relative weights are assigned. Likewise, the results of data processing do not immediately produce consequences by themselves and objectively. They have to be interpreted and contextualised. As in: »And what does that now mean for us and for others?«

The person or persons making these decisions at this point and providing valid interpretations define the new zones of uncertainty (see box, left) arising in the context of digitalisation. These zones become a source of power for those who have the prerogative of interpreting the data and who can decide what data are actually collected. This power already existed in the analogue setting. However, once technology comes into play the issues of human, subjective decision factors are obscured. The data then appear objectified, and thereby develop increased potency. And the power of members in charge of producing interpretations, who are deemed to have expertise in data analysis, also grows in the same way.

These power shifts become particularly important in situations and arenas where scarce resources are distributed and priorities decided. Regardless of whether the issue is the distribution of financial resources, the creation of new jobs or individual career opportunities – those who can plausibly demonstrate a special need by referring to »the data« will always have an advantage.

It is therefore critically important for organisations:

To reflect from the long-term perspective on how digitalisation will redistribute power resources.

An organisational analysis then has to be conducted to clarify the following:

1. Who is having what power resources taken away?
2. Who is being given what power resources?
3. What new arenas for power games are emerging in the organisation – and which ones are being eliminated?

Digitalisation creates new opportunities for individual performance measurement – and new deficits

However, as digitalisation advances more than just opportunities for employees to assert their performance will shift. Entirely new opportunities will also emerge for performance to be attributed. For example, where login times are recorded automatically or a processing history is generated it will be possible to attribute work contributions individually (measure performance individually). Knowing this can sometimes increase employees' motivation and commitment. At the same time, however, these new opportunities also harbour fuel for micropolitical conflicts – for example, if work contributions are recorded for individual people but were actually created in the team or founded on external preparation. In such cases, the organisation is working with a technical system which ignores cooperation and thus rewards selfishness.

Where digital data become the basis of individual performance measurement in such a way, defensive reactions from those affected are to be expected. These are evident, for example, in the fact that employees will try to produce data that favours them – which is not necessarily the same as doing productive work. »Gaming« like this (Espeland / Sauder 2007: 29), where the evaluees gear their activities towards the performance indicators (keystrokes, login times, emails sent) instead of the actual task, undermines hopes of efficiency. However, it can be good for cohesion if colleagues outsmart the technology together.

It is therefore critically important for organisations:
To develop a strategy for dealing with new opportunities for performance attribution.

That means deciding:

1. Whether and, if so, which available data the company favour as the basis for performance evaluations,
2. What potentially feasible performance monitoring data will not be used, and
3. How to communicate these decisions to staff.

Digitalisation produces new stars – and brings down old ones

The sensitive nature of the rise of new power resources and of new opportunities to acknowledge performance can be seen in aggregate from the shifts in the symbolic status order in the organisation: new stars are born – and old ones have to give way. An example of an emerging star in many organisations is the position of Chief Digital Officer (CDO). If the department is equipped with appropriate competencies for selecting and interpreting data, it either takes away power resources from other areas of the organisation – or it exercises control over issues that were previously irrelevant.

This makes the question of whether it is preferable to centralise or decentralise digitalisation projects, for example, much more than a consideration of efficiency. The department also decides who will occupy which position in the future status order and who will have what power resources. Similar status shifts can occur when new digital services replace the work of entire functions in an organisation. Such developments shake up long-standing organically grown power relationships between business divisions, when the dependency of one division on another suddenly disappears.

Digitalisation initiatives lead to resistance

It should be obvious that conflicts and resistance are to be expected in view of this background. However, how profoundly an organisation can be affected by such defensive reactions from fading stars is frequently overlooked. For example, problems can be caused for an organisation not only by battles raging on the C-level, but also and in particular by defensive wars against the curtailment of powers further down the hierarchy. If, for example, police deployment plans are generated on the basis of algorithms (Brayne 2017) or an AI app makes predictions on sound or wrong decisions, the effect doesn't stop at promoting the speed and perhaps even the quality of decisions. It can also lead to a de-professionalisation of human resources if the employees' experience is devalued. Such a situation is sensitive because it fosters resentment towards digitalised work forms in an organisation.

If organisation members' substantial interests are affected and the factors which earn people recognition change at the same time, it should be evident that the resulting resistance cannot be addressed by promoting a »digital mindset«. This approach may access some people who associate traditional values with their work, or who are just easy-going . However, it will be impossible to reach those who believe that they will emerge as losers from the political power struggles of the digital transformation – even with the best communication campaign about opportunities and exciting innovations in the digitalised organisation.

It is therefore critically important for organisations:

To facilitate the transition from the old to the new status order intelligently.

This involves:

1 Identifying who will lose status and become a fading star,
2 Determining whether and how these »old stars« will be integrated into the new situation and providing them with new status; but also
3 Anticipating who will gain status and become a »new star« and finally
4 Thinking ahead about how the members concerned need to be prepared for their new status.

Case study

Who sets priorities in the Scrum process?

What's the background?

A major media house is rejigging its business model. Previously, value had been created primarily in the analogue business. New digital offerings which will also generate profits are now to be added to the portfolio. A product management department is being set up for this purpose. Product owners will manage the development of the new digital offerings. For the implementation, they are being assigned Scrum teams which belong formally to the in-house IT department. The IT department is also responsible for other, normal IT tasks such as maintenance for the existing digital offerings.

Where does conflict arise?

Conflict has come to light in a rift between the product owners and the programmers in the IT department. Tensions had escalated to heights that had already led to resignations in the IT department. The conflict is due to the desire of the driving forces behind the new digital offerings – members of the top management – to see their products finished as soon as possible. Accordingly, they put pressure on the product owners in question.

The problem: although the product owners work with agile teams – they themselves can still be reached via the hierarchy. When the top management comes knocking on their door, they have few means of fending off the requests. Instead, they pass the pressure on to the software development staff. And the software development staff find this influence invasive: After all, the Scrum organisation clearly specifies, transparently for all concerned, when which project feature is to be worked on. There is no provision for the product owners to claim special favours.

How can this conflict be resolved?

Centralised IT departments becoming an organisational bottleneck is a common phenomenon. Conflicts are a typical consequence. However, they should not be fought out between product owners and top management. In fact, the assignment of binding priorities as prescribed by the organisation must be reflected in such instances. The various internal clients have to negotiate their interests among themselves and establish priorities along which the Scrum teams can work. A policy of »everything is equally important« can never work and will lead to a micropolitical shift towards the interface between the Scrum team and the hierarchy.

To defuse the conflict between product owners and IT, the issue is therefore not so much to change the Scrum teams' work or the product owner's role. instead, the micropolitics needs to be shifted back to suitable arenas of top management. The appropriate lever for this is to establish a binding prioritisation process which protects the product owners from influence from both sides of the hierarchy.

Which good idea is worth supporting?

4 Innovation

Digitalisation projects, especially fairly comprehensive digital transformations, always go hand in hand with an aspiration towards innovation. Sometimes processes are to be innovated, with faster decision-making mechanisms and better data bases, other times the issue is product innovations and a revamp of entire business areas. The starting point is always an idea stating what is actually to be innovated – and whether the process will be incremental or disruptive.

Organisations normally don't lack solutions concerning how to search for good ideas: project teams with a clearly defined mission are installed, completely open-ended innovation labs or corporate incubators are set up, or an attempt is made to create an environment which enables and fosters grass roots initiatives. All these formats are organisational structure decisions which are in principle suitable ways to enable new ideas to develop. It is important here to examine which (additional) arenas – including informal ones – are actually producing really good new ideas and what rules, processes or targets could be helpful. The biggest stumbling blocks are normally revealed when the ideas have to be transferred permanently to the organisational structure – and when the genuinely eligible ones have to be selected.

Innovation

A high value is ascribed to »innovation« in the organisational context. Considered dispassionately, changes take place in organisations all the time. Some are the result of a deliberate process which has been formally decided. Others transpire »behind the backs« of those involved. From a higher-level perspective, both types of organisational change can be understood as a process of three overlapping and recursive phases (Luhmann 2000; Weick 1985):

1. In the variation phase, ideas are developed and possibilities explored. This phase sees a departure from well-trodden paths, the questioning of ingrained assumptions and experimentation with new ideas.
2. In the selection phase, the ideas that are to be developed into a new routine are selected. This can be done by formal decisions, in a micropolitical power struggle, or simply because nobody yells »stop«.
3. In the restabilisation phase, the once-new ideas become the »new normal«. The ideas are integrated into existing organisational structures and themselves take on structural value. To prevent contradictions from arising, people will often need to unlearn previous structures and routines.

Lots of good solutions – but to what problem?

Many of the digitalisation ideas and initiatives arising in organisations may be promising – yet most of them fail sooner or later. It is evidently not enough to produce good ideas and pursue them euphorically. They have to be transferred from the development and trial-and-error phase into the organisation. This requires a decision to the effect that this idea has actually been selected for transfer – and that it will be pursued more seriously than the many other experiments and test balloons that employees are trying out.

This phase transition is an organisationally delicate moment from several points of view. For one thing, accountabilities usually shift. Whereas it is generally possible to experiment and explore relatively freely in the variation phase (idea production), once selected, projects receive greater attention on the one hand, but on the other they also lose their casual easiness as soon as resources are allocated and success is expected. This means that the innovation hub's informal grass roots and pilot projects are in danger of being choked by the organisation's formal structure.

At the same time, the organisation also binds itself by this formalisation: if the project is placed in the hands of people with a high formal status and/or micropolitical power, this may be just the extra fertiliser without which the idea might never be cultivated for a decent period of time and brought to full bloom.

A good idea is only as good as its implementation

The structural conditions under which ideas are generated are therefore not the same as those under which the same ideas have the chance to establish themselves in the organisation and lead to a sustainable structural change or to a marketable product. And it is organisational factors that decide the outcome of the phase transition.

It starts with the responsibilities. For one thing, the issue of who can select concrete ideas and projects and on what basis is frequently unclear. Under these circumstances, the micropolitical power struggle is then left to decide which projects will be pursued in the organisation and which will be abandoned. This will not necessarily lead to bad results. Nevertheless, by taking this course of action the organisation places the responsibility for its innovativeness in the hands of individuals and relies on their intuition and negotiating skills. The moment these individuals are no longer available, the organisation will have problems.

To make matters worse, the selection phase – in which the question of »Which good idea is worth supporting?« arises – no longer follows exploratory logic: at this point, the people in charge have to face the established, organisational evaluation criteria. As a rule, this means that results are now expected, and within a limited time frame. The innovation has to prove itself. The organisation has to prepare members well for this step if they are to voluntarily take on the pressure of the responsibility as well as that of being measured by their idea.

It is therefore critically important for organisations:

To obtain a clear picture of their own selection mechanisms.

On this basis, it then becomes possible to:

1 Identify conflicting organisational logics and interests so that
2 potential conflicts are foreseen and
3 a discourse strategy can be developed in order to
4 facilitate the conflicts in a way that is an intelligent fit with the organisation.

If you want to introduce innovations, you have to unlearn old ways

Making the pilot project a success, spreading the grass-roots idea throughout the organisation, actually applying the business model – in short, stabilising innovation: that is the most difficult part of the whole process. Maybe you would like to change many things, but whether they can be changed is another question. And here, too, organisational logics become a challenge: the organisation often gets in its own way.

Organisations are structurally inert social systems (Hannan/Freeman 1984). They have some defence mechanisms which make it difficult to effect structural changes. One of the main mechanisms is discussed under the heading of the »competence trap« (Levitt /March 1988), This points to the fact that structural changes entail considerable effort. Successful organisations often do not see sufficient reason to revamp routines and product portfolios which are functional on the whole. In phases when organisations would have resources, could deal with internal issues and try out new things – that's exactly when they are least willing to do so.

However, when a crisis occurs and there is an evident need for structural change, the capacity for the corresponding innovation and reorganisation efforts is not available. Organisations are then primarily concerned with acute crisis management, everything else has to wait.

If you want your solution to be implemented, you need a good problem

Taking it easy and following »never change a winning team« strategies are therefore among the greatest dangers that innovations can encounter. However, it is of limited value to disseminate a general mood that the company is making a fresh start and to spread the rhetoric of revolutionary, sweeping change which is particularly common with digitalisation projects. To actually stabilise an innovation, it is helpful to connect it to the resolution of an actual, definable problem or task to which the project or innovation can contribute. Problems are important relevance markers in organisations. Above all, they can prevent the organisation's attention from straying to other issues. So the more disturbing the problem, the more probable it is that an innovation which arrives on the scene as a solution to stabilise it will receive support.

Digitalisation innovations and projects that were never intended to replace old structures, but are planned as a new component of the established formal structure, face a challenge all their own. For example, the introduction of a new digital networking tool is hardly likely to fulfil expectations if it fails to break down the established communication channels at the same time. Otherwise, although the organisation may have a new digitally oriented formal structure, it will remain ineffective because the old formal structure will live on in the informal sphere and possibly even take on fresh prominence there. The sustainable success of digital transformations therefore also depends to a large extent on whether the old structures can be successfully unlearned (Baecker 2003: 179 ff.).

It is therefore critically important for organisations:
Always to view digitalisation projects as innovation and re-organisation projects.

Specifically, this means:
1. Not merely aiming to add digital processes, products and services to the status quo, but
2. Examining the existing organisational structures in order to harmonise new and old structural elements.

This paper shows how an organisation's internal logic interacts with digitalisation projects in many ways, how they can overlap, reinforce, and undermine each other. This relates both to the effects of digital transformation and to the process of digital transformation itself.

The digitalised organisation is not just an analogue organisation on steroids – it is a different organisation. The challenge is to think in advance about whose interests are affected by this change and in which arenas digitalisation processes will be encouraged or impeded, as well as scrutinising unintended effects of increased datafication and keeping organisational culture aspects in mind.

The organisational logics and mechanisms described here are at work in virtually all organisations; irrespective of whether they are large or small, young or old, or whether the entity seeking digital transformation is a business, a public agency, a non-profit organisation, a police force or a ministry.

Nevertheless, all organisations differ substantially from each other in terms of their specific decision-making structures, their organisational culture and their micropolitical power constellations. There can therefore be no »one size fits all« approach to successful digital transformation. Instead, the issue is to approach your own projects on the basis of a precise knowledge of your own organisation.

This paper is intended to provide an introduction to such reflections – and to nurture the conviction that although the undergrowth may be dense, a path can still be cleared if you have the right questions in your kit.

Case study

How do you select the useful ideas?

What's the background?

A global conglomerate with roots in the building materials industry is running innovation projects in so many business units and local subgroups that confusion is gradually setting in. Although there is a department at the highest hierarchical level which is responsible for innovation and digitalisation, it is short of knowledge about the local business and formal access to the units in the organisation. The effect is that every innovation stands or falls on its own.

Where does conflict arise?

The structure is causing several problems: on the one hand, projects are being initiated in parallel without the teams knowing about each other. The use of virtual reality glasses to support machine operation and maintenance, for example, is being investigated in more than twenty different projects. People perform experiments and tests but never come up with ideas that are small enough to be implemented locally – and the knowledge and budget for big ideas are not available. As a result, expensive purchases have been made, working hours expended twenty times over, only to find nothing useful to develop on the local level.

This leads to the second problem: a business idea that would be potentially successful for a start-up and for which capital could be obtained on the open market is only worth a shrug of the shoulders within the dimensions of the group. The potentials of the new business ideas are too small for the turnover that the management levels normally deals with. Attention is scarce and smart managers are very selective about the things they want to spend a lot of time on. They would like to take the glamour of an innovation on board – but it shouldn't lead to too much work.

How can this conflict be resolved?

At a certain level of decentralisation, there is no way to avoid the problem that energy is expended on similar or identical project ideas in a lot of different places. However, that problem can be contained. In this case, a centre of competence for digital innovations was set up. The organisation's digital projects are bundled, evaluated and, if appropriate, continued here. This saves the same work from being replicated in different places – and fruitful ideas are successfully scaled up to the global level.

It is also helpful to shift responsibility for innovation projects to a lower hierarchical level. If the success of the innovations and the expected turnover makes a difference to the product owners' income and career prospects, the projects take on a fresh relevance. The two approaches can also be combined: it is a win for the product owners if their project is selected by the centre of competence.

How do you make digital transformation processes successful?

By directing searchlights at your own organisation – and asking yourself the right questions.

Here's a sample to get you thinking.

Searchlight questions

Decision-making structures and leadership

- Which established organisational structures are challenged by digital initiatives?
- How productive are the interfaces between agile and non-agile units?
- How do data change decision-making processes in the organisation?
- What roles do leadership and hands-on management play in the success of digital initiatives?

Organisational culture

- Where does the organisational culture encourage the desired digital change processes and where does it hamper them?
- Where have different organisational cultures now started to come into conflict – and how can this be resolved?
- Where does the company want to influence the organisational culture and where does it start?
- How does the organisation enable a digital mindset – for example, by experimenting, testing, learning, networking in the ecosystem?

Micropolitics

- Whose interests are affected by the transformation – and have to be negotiated with the interested parties?
- What power games are being played – for example, about the interpretation of data and transparent processes?
- In which arenas are decisions on prioritisation and resources made?
- How is the cross-sectional issue of digitalisation dealt with across departments and individual interests?

Innovation

- In which arenas are good new digital ideas emerging?
- What rules, processes, targets help or hinder this?
- Where do innovations bounce back off the organisation – and why exactly?
- When does the development of new digital processes, products and services need to be protected by structures – and how can this be done?

Bibliography

Baecker, Dirk (2003): Die verlernende Organisation. In: Dirk Baecker (ed.). *Organisation and management.* Essays, Frankfurt a. M.: Suhrkamp. p. 179-197.

Brayne, Sarah (2017): Big Data Surveillance. The Case of Policing, in: *American Sociological Review* 82(5): 977-1008.

Büchner, Stefanie (2018): Zum Verhältnis von Digitalisierung und Organisation, in: *Zeitschrift für Soziologie* 47(5): 332-348.

Cevolini, Alberto & Esposito, Elena (2020): From pool to profile. Social consequences of algorithmic prediction in insurance, in: *Big Data & Society* 7(2): 1-11.

Crozier, Michel & Friedberg, Erhard (1993): *Die Zwänge kollektiven Handelns.*

Über Macht und Organisation, Frankfurt a. M.: Hain.

DiMaggio, Paul J. & Powell, Walter W. (1983): The Iron Cage Revisited. Institutional Isomorphism and Collective Rationality in Organizational Fields, in: *American Sociological Review* 5: 147-160.

Espeland, Wendy Nelson & Sauder, Michael (2007): Rankings and Reactivity. How Public Measures Recreate Social Worlds, in: *American Journal of Sociology* 113: 1-40.

Feldman, Martha S. & March, James G. (1981): Information in Organizations as Signal and Symbol, in: Administrative Science Quarterly 26: 171-186.

Grossjohann, Ronny & Harms, Robert (2021): Die Agile Werkshalle im Siemens Gasturbinenwerk, in: Judith Muster, Finn-Rasmus Bull & Jens Kapitzky (eds.): *Postbürokratisches Organisieren. Formen und Folgen agiler Arbeitsweisen,* Munich: Vahlen, p. 67-75.

Hacking, Ian (1982): Biopower and the avalanche of printed numbers, in: *Humanities in Society* 5: 279-295.

Hannan, Michael T. & Freeman, John (1984): Structural Inertia and Organizational Change, in: *American Sociological Review* 49: 149-164.

Heintz, Bettina (2010): Numerische Differenz. Überlegungen zu einer Soziologie des (quantitativen) Vergleichs, in: *Zeitschrift für Soziologie* 39: 162-181.

Kette, Sven (corresponding author): Computer says no? Konsequenzen der Algorithmisierung von Entscheidungsprozessen, in: *Soziale Systeme. Sonderheft »Organisation und Digitalisierung«* (eds. Sven Kette & Veronika Tacke).

Kette, Sven & Barnutz, Sebastian (2019): *Compliance managen. Eine sehr kurze Einführung,* Wiesbaden: Springer VS.

Kette, Sven (2018a): Unsichere Verantwortungszurechnungen. Dynamiken organisationalen Compliance Managements, in: *GesundheitsRecht* 17(1): 3-6.

Kette, Sven (2018b): Unternehmen. *Eine sehr kurze Einführung,* Wiesbaden: Springer VS.

Kette, Sven (2014): Diskreditiertes Scheitern. Katastrophale Unfälle als Organisationsproblem. In: Jens Bergmann, Matthias Hahn, Antonia Langhof & Gabriele Wagner (eds.). *Scheitern. Organisations- und wirtschaftssoziologische Analysen,* Wiesbaden: Springer p. 159-181.

Kühl, Stefan (2020): *Brauchbare Illegalität. Vom Nutzen des Regelbruchs in Organisationen,* Frankfurt a. M., New York: Campus.

Kühl, Stefan (2018a): Organisationskultur. Eine Konkretisierung aus systemtheoretischer Perspektive, in: *Managementforschung* 28(1): 7-35.

Kühl, Stefan (2018b): *Organisationskulturen beeinflussen. Eine sehr kurze Einführung.* 1st edition, Wiesbaden: Springer VS.

Kühl, Stefan & Muster, Judith (2016): *Organisationen gestalten. Eine kurze organisationstheoretisch informierte Handreichung,* Wiesbaden: Springer VS.

Küpper, Willi & Ortmann, Günther (eds.) (1988): *Mikropolitik. Rationalität, Macht und Spiele in Organisationen,* Opladen.

Levitt, Barbara & March, James G. (1988): Organizational Learning, in: *American Journal of Sociology* 14: 319-340.

Lucas, Henry C. & Goh, Jie Mein (2009): Disruptive technology. How Kodak missed the digital photography revolution, in: *TheJournal of Strategic Information Systems* 18(1): 46-55.

Luhmann, Niklas (2000): *Organisation und Entscheidung,* Opladen [u. a.]: Westdt. Verl.

Luhmann, Niklas (1997): *Recht und Automation in der öffentlichen Verwaltung. Eine verwaltungswissenschaftliche Untersuchung.* 2nd, unchanged edition, Berlin: Duncker & Humblot.

Luhmann, Niklas (1964): *Funktionen und Folgen formaler Organisation,* Berlin: Duncker & Humblot.

Lukas, Ernst (2021): Agile Softwareentwicklung, in: Judith Muster, Finn-Rasmus Bull & Jens Kapitzky (eds.): *Postbürokratisches Organisieren. Formen und Folgen agiler Arbeitsweisen,* Munich: Vahlen, p. 102-124.

Matthiesen, Kai, Branovic, Zeljko (2021): Digitale Ernüchterung. Warum Digitalisierungsprojekte scheitern. In: *versus-magazine.* https://versus-magazin.com/artikel/digitale-ernuechterung/ (13. 11. 21.).

Mormann, Hannah (2016): Das Projekt SAP. *Zur Organisationssoziologie betriebswirtschaftlicher Standardsoftware,* Bielefeld: transcript.

Muster, Judith, Büchner, Stefanie, Hoebel, Thomas & Koepp, Tabea (2020): Führung als erfolgreiche Einflussnahme in kritischen Momenten, in: Christian Barthel (ed.): *Managementmoden in der Verwaltung,* Wiesbaden: Springer Gabler, p. 285–305.

Muster, Judith, Bull, Finn-Rasmus & Kapitzky, Jens (2021) (eds.): *Postbürokratisches Organisieren. Formen und Folgen agiler Arbeitsweisen,* Munich: Vahlen.

Ringel, Leopold (2017): Transparenz als Ideal und Organisationsproblem. *Eine Studie am Beispiel der Piratenpartei Deutschland,* Wiesbaden: Springer Science and Business Media; Springer VS.

Saleem, Jason J., Russ, Alissa L., Neddo, Adam, Blades, Paul T., Doebbeling, Bradley N. & Foresman, Brian H. (2011): Paper persistence, workarounds, and communication breakdowns in computerized consultation management, in: *International journal of medical informatics* 80(7): 466-479.

Weick, Karl E. (1985): *Der Prozeß des Organisierens,* Frankfurt a. M.: Suhrkamp.

“Organisations will always have blind spots. But if you have an ongoing dialogue, you can at least factor them in.” Sven Kette

Two worlds

Technology and people have to be a match. That means digitalisation will only succeed if you change the corporate culture in parallel as well.

<u>*Julia Borggräfe*</u>
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Digitalising is a tricky affair: on the one hand, the new technologies offer unprecedented improvements in collaboration and knowledge sharing, but on the other they spawn more bureaucracy, fresh chaos and insecurity in a lot of companies, public agencies and organisations.

No wonder: using IT and software means breaking down old structures and hierarchies, and simultaneously redefining rules and responsibilities. However, many of the problems arising in the process are home-made, say Julia Borggräfe and Sven Kette.

In a far-reaching research project for the organisational consultancy Metaplan, the two experts are investigating why the results of digital transformation processes often fall short of expectations.

Their core thesis: the problem is not the new tools and techniques, but the way their initiators introduce them. All too often, managers only look at change through the technical lens, take the dream for the reality and succumb to the mistaken belief that transparency and control make everything better per se.

Ms Borggräfe, Mr Kette: Digitalisation projects regularly promise "Vorsprung durch Technik", but often fail in the end. What is the cause?

Julia Borggräfe: Quite simply, it's the fact that a lot of companies and managers take it too lightly beforehand. You have to distinguish between two levels in digitalisation, the technical side and the impact unleashed in the organisation as a result of it.

Because no area of the company remains unaffected by the changes: digitalisation affects – often considerably – production processes, structures, procedures, or the question of how flexibly a company can react and how much power is held by individual employees or entire departments. Ignore this at your peril: if you do, don't be surprised if the new IT system is in place at the end, but the team works with tricks and workarounds, i. e. uses evasive tactics.

In your study you explain why many organisations have so much difficulty. How do you detect the flaws in the system?

Borggräfe: We always start our support for change processes like these with confidential interviews with the organisation's employees – that way, you get told everything. Then we condense our findings into hypotheses which map the patterns and dynamics. We often find that the managers have given little thought up front to embedding their digitalisation projects strategically, and shy away from the effort of addressing what digitalisation has to do with their in-house corporate culture. It catches up with most of them later.

What's your diagnosis? What goes wrong? And how could it be done better?

Borggräfe: It's very important to scrutinise the current processes and structures that are going to be digitalised beforehand. Do they really happen as laid down in the company's organisation chart, work instructions and work processes – or not? In this context, sociologists distinguish between formality, i. e. the official procedures and hierarchies – and »informality« with its shortcuts, side agreements and tricks to evade the red tape.

Why is the distinction important?

Kette: Because it explains what's going wrong. When making the transition to digital structures, a lot of managers assume one ideal-typical organisational world – but there are often a lot of layers to real working practice. People are spontaneous, creative, cover things up, have sympathies and antipathies or sometimes just get sick. In day-today operations, official procedure is often adapted to situational needs. Because there's much more variation in reality than in any official rules.

Borggräfe: Sales processes and customer relations, for example, need a degree of flexibility, possibly relating to delivery times, product adaptations or reduced prices on large orders. In sales, for example, it can help if you steer a negotiation informally towards what the customer wants without the entire department noticing. The art of relaxing your outlook on things can also be the making of many business relationships – their success even depends on it.

So you should also consider informal structures when you digitalise?

Kette: Definitely, but it's not quite that simple. Bending the rules only works if it remains invisible. Top management or line management have to be in a position to at least pretend they know nothing about it. If you make things like these manifest, for example in software, you raise them to the formal level, they become visible and can no longer be hidden in the grey areas of discretion.

That's the point where you get caught in a vicious circle: because even where informalities arise in the interest of the company, they're still a breach of the rules. The organisation can't accept them officially because it would then be casting doubt on the validity of all the other rules.

Borggräfe: In other words, if employees could suddenly face sanctions for misconduct that was previously tolerated, they will either stop doing it or look for ways round the rules that will stay under the digital radar. They'll take evasive action. And at that point it soon becomes counter-productive: on paper, the nice new digitalised processes are running correctly, but agreements on the side conflict with them and ultimately result in more work, more paper, higher costs – and less clarity.

“Bending the rules only works if it remains invisible.”

Sven Kette

What does that mean in practice?

Borggräfe: In a lot of companies, complicated constructs consisting of analogue – paper – documents as well as verbal agreements exist alongside the digital systems.

For example, one industrial group had a digital capacity planning system to allocate available employees to projects. Except that it included positions that were needed, but weren't actually filled at all. However, these fields still had to be completed on screen to feed the planning software, which had led to frantic juggling: the departments concerned developed shadow accounts with long Excel spreadsheets so that they could operate the digital tool without getting bogged down on the real life front.

It sounds like sheer idiocy, and against the doers' will at that – and like a plea against digitalisation.

Kette: It's intended more as a plea for greater care and a greater sense of reality. Digital processes are based on simple, underlying programming rules. We've all been there: if a mandatory field in the input mask of an online form is not filled in, you can't proceed to the next step.

This rule-based process works fine when you only have to handle a limited number of variants and simple conditional programming is adequate (if A, then B). But organisations are complex. Whenever ambiguous situations arise, or a large number of people come together and are supposed to collaborate, things soon get complicated.

Borggräfe: Many C-suite executives have an abiding hope that digitalisation will help them to finally gain transparency and control over their own operational processes. However, you have to take care that digital processes don't just create an illusion of transparency and clarity while the reality still looks entirely different. Having more data doesn't mean that they reflect an objective picture of your situation, far from it – see, for example, the informal agreements.

Complete control shouldn't be the aim in any case. A living organisational culture needs some headroom. That's why you should think about the issue in advance and decide what you want to digitalise and what you really don't want to have governed by the rules, for example, so as to create scope for unforeseen situations such as delivery bottlenecks, short-time work, price increases. It's quite possible to programme entire modules to accommodate this essential flexibility.

But hasn't that been happening for quite a while? Companies take usability, i.e. user-friendliness, quite seriously these days.

Borggräfe: Sadly, in practice usability often means that the technology doesn't follow the workflow, instead, the workflow has to follow the technology. But that can't possibly be the aim. That's why you have to think through up front who is intended to benefit from the new structures and how, and design the process accordingly.

So the problem is not the technology, but the human who uses it wrongly and prematurely?

Kette: I'm reluctant to play the blame game. I would be more inclined to seek the causes in the structures.

You have to understand a few relationships here: decision-making processes always have to do with power. When digitalisation is put in place in organisations as to who is allowed to decide how and what and when, the or-

"You have to take care that digital processes don't just create an illusion of transparency and clarity while the reality still looks entirely different."

Julia Borggräfe

der in which these things are done always has to be renegotiated as well, i. e., who has more power or less power. If digitalisation means that hierarchical levels all of a sudden have less of a say than before, it's logical enough that they won't have much interest in helping to make the project a success. If you're aware of that, you can negotiate in advance with all parties involved.
Borggräfe: Digitalised processes always have an advantage when you can scale them and when systems can interact. If, for example, each of the 11,000 municipalities in Germany builds its own software solutions, even though they all face similar tasks, there's no point in digitalising individual municipalities. It results in one authority's data records having to be printed out at a neighbouring municipality's office in PDF format and laboriously entered into its own system.

Is this because a lot of processes are planned too rigidly?
Borggräfe: I don't think so. There aren't too many standards in public administration, but too few. The more interfaces there are between systems, the more cumbersome, elaborate and failure-prone they become – making the desired interactions almost impossible.

What can organisations do to prevent this kind of independent state mentality?
Kette: Above all, they have to make sure that the actual work processes can be discussed and that all relevant angles are included in the process. Because they must realise that the restructuring affects substantial interests of many employees and at the same time changes almost everything that previously earned them recognition in the organisation. To assume that the resulting resistance can be addressed with a little bit of coaxing or – even more of a blunder – simple orders from above is naïve.

Digitalisation projects – like all innovations – always give rise to micro-political power games that can develop a momentum of their own. A lot of great ideas never come to fruition because individuals fear that they'll demean their stature. This can only be avoided by recognising opposing interests in advance, and therefore anticipating potential conflicts and facilitating innovations carefully and intelligently.
Borggräfe: It takes a great deal of sensitivity. All those involved should be familiar with the limits, strengths and weaknesses of digital processes and not just be powerless in the face of them. Enablement and empowerment are needed so that the people affected can enjoy the benefits. At present, although a lot of organisations have more or less well-equipped IT facilities, the rest of the team normally doesn't have much of a clue.

We need a kind of digitalisation literacy programme. One of the main tasks of a modern organisation should therefore be to take this know-how into the mainstream, for example with interdisciplinary teams and appropriate training programmes.

Ultimately, then, the success of transformation processes depends on how effectively people are involved?
Borggräfe: Absolutely. You can't delegate everything to algorithms. They can be helpful and can effect a lot of changes, but at the end of the day the key factors are still leadership and responsibility. Incidentally, this is also the legal point of view, for example in the area of product liability or in the debate about rules on artificial intelligence at EU level. It's obvious that even after a company is digitalised it's people who are responsible for decision-making – failing all others, the board of directors who decided to use certain programs.
Kette: Digitalisation is at least as much a management task as a technical task. If you want to master it, you need to talk to each other a lot. An appeal to the goodwill of those involved is not enough. It's not always easy and is handled differently in every case, because there just isn't one uniform approach to a successful digital transformation. Organisations will always have blind spots. But if you have an ongoing dialogue, you can at least factor them in. ▬

"You should always take a dispassionate view of methods and the problems they bring in their train. Good organisation means working on very concrete problems." Judith Muster

Solutions to problems

Judith Muster, born in 1979,
conducts research into data-based decisions and post-bureaucratic organisation units in bureaucratic organisations in the organisational psychology department of the University of Potsdam. She has worked since 2011 with Hamburg-based consultancy Metaplan, where she has been a partner since 2018.

and problems with the solutions

Burn the organisation charts!
Tear down the office walls!
Just do it!

What are the consequences of calls to action like these? An interview with management consultant Judith Muster.

Interview:
Peter Laudenbach
Photography:
Anna Ziegler

brand eins: Ms Muster, SAP CEO Christian Klein said in a recent interview that what his company needed now was customer focus, innovation and agility. The interviewer didn't ask what Klein meant by this – why are these terms now so taken for granted?

Judith Muster: Probably no top manager of a DAX-listed company could afford to ask for the opposite: no customer orientation, no innovation, no agility. You don't need to justify committing to agility, you would need to justify rejecting it. Whether it's more than a management fad is hotly debated. A more interesting question is the genuine organisational pains behind the call for agility.

What might they be?

One Western European tech company we studied wanted to go for radical restructuring. The proclamation of agility served as a lever: without it, they wouldn't have been able to break down the existing structures. One aim was to take away the power of the hidden divisional and departmental rulers, with their long-standing entrenched privileges.

That doesn't have a great deal to do with the usual rationale about companies needing to become faster and more agile.

No, it was a reaction to organically grown organisational problems. Another case was a medical technology company that we analysed. Initially, the meaning of agility was not at all clear to the management. They used the change process to create "productive unrest". The company sells 2000 products in 27 countries. Every one of these countries has different legal requirements, and a lot of clients have individual wishes. The goal was to modernise and digitalise sales and customer management.

And how did that work out?

At least it became clear that things could not continue as they were. One purpose of proclaiming a new, in this case agile, age is to avoid maligning the old ways. You can spread the message that change is called for by dramatising the new. The company achieved this with the help of the "agility" label.

What are the effects beyond the rhetoric?

Working with agile projects outside the formal organisation – for example in an Innovation Lab – can protect bureaucratic structures. The need for change is delegated to a special unit, nothing changes in the core organisation. A different model is seen fairly often these days when HR departments use the issue to gain influence or at least win the prerogative of interpretation within the group. On the one hand they have no real power, on the other hand they have to claim that they know what the organisation needs. So they make their own department agile at least, as a demonstration that they know how to do it. The process often stops at this point.

Companies' problems and the solutions to them are so varied that you may wonder why all these things are grouped under the buzzword "agility" – even if all it means in many cases is something like a half-way flexible work organisation and greater elasticity.

Don't buzzwords like this mainly help consultants, who use them to attract insecure clients?

Absolutely. The trick is to immunise the concepts against criticism: if something goes wrong, the implementation is to blame, not the concept. But in most cases the consultants have left by then.

Is the agility trend already dying down?

No, I know of many large corporations that are currently introducing agile models. But at least by now people realise that the compact solutions with their promises of salvation don't work.

So it's all just hyperactivity?

Not necessarily. In the first step, the call for agility acts like a symptom which flags up a problem. In the second, it serves as a door opener for change. The action then taken in reality doesn't necessarily have a lot to do with the common concepts of agility. It is much more important to understand the actual problems. Thanks to the rhetoric of agility, the organisation can claim that it has only now been enabled to recognise its own pathologies – thanks to the new method. In other words: "we're not bureaucrats preserving vested interests, we couldn't know that there was any other way". In systems theory terms: you create irritations in the system without challenging the system in its essence.

Is there a clear trend away from bureaucracy and formal hierarchy in large corporations?

It's more of a pendulum movement: from de-bureaucratisation to bureaucratisation and back. More division of labour – less division of labour, insourcing – outsourcing, centralisation – decentralisation: these are wave movements, not linear developments. Within a corporate group, even within individual departments, the two trends may occur in parallel, more regulation and less regulation. Agility initiatives are driven forward by individual board members, while at the same time initiatives are launched within the company that result in massive regulation processes in other areas.

The two need not necessarily collide. But every innovation has side effects. Digitalisation provides a clear demonstration: it's intended to speed up processes, make them more transparent and less bureaucratic. At the same time, it leads to more documentation, to more formality.

Where do the risks lie?

If, when you introduce agile methods, you raise excessive expectations of salvation and make all employees commit to them, ceremoniously burn all the organisation charts or tear down office walls, you have a problem if the promises don't come true. Difficulties are often blamed on the implementation: the idea was good, it's just that the implementation is going wrong. The employees are handed the responsibility for problems associated with the new work organisation. And that after they had been asked to place their unconditional faith in the new forms of work organisation, or at least to pretend to do so.

That's not fair, and it doesn't move the company forward, does it?

It always causes trouble when methods are morally charged. Agility is misunderstood as an end in itself, although a method should actually only be a means to an end. Then culprits are sought elsewhere: people's mindset just isn't right. Typical imperatives are then "be independent" or "get involved". One popular cliché is: "Just go for it." That's actually outrageous. Because people who accept that without safeguards can expect the organisation that has asked them to "just go for it" to penalise them if something goes wrong.

That is invasive.

Particularly if the "agility" label is used to appeal to the employees' personal attitude. In actual fact, that's none of the organisation's business as long as people do their job. But moralisation is used to attract people's personal convictions into the service of the organisation as well. Taking the "Purpose Driven Organisation" as their vision, companies explicitly demand resources such as meaning and identification. These are relatively common actions in post-bureaucratic organisations. But organisations need to come up with constantly new concepts in order to lay claim to this identification. Apart from anything else, that's essential because employees learn to evade invasive demands of this kind. One of these new concepts is agility.

Do you see a trend towards companies making increasing demands on their employees?
There are wave movements here as well: more emphasis is placed on individuals, and when that goes too far or runs aground, structures become more important again. And vice versa. HR departments should really stand in front of the employees and protect them from impositions, for example in the name of agility. Instead, they push concepts like these. People are not a totally available resource, they only make their skills and working hours available to the organisation. Some HR departments think they are benefiting employees by working on their mindset. In reality, these things are unreasonable demands

Does the cold eye of the organisational sociologist help?
It protects against premature moves to hold people accountable for any problems that arise. That's in the interest of the organisation as well as the people who work within it. It's practically the duty of organisational sociology to be interested exclusively in functions, not people.

People do work in companies, though.
But they're not required there with the sum of their personal qualities, they're required in their roles. One great achievement of the bureaucratic organisation is that it operates independently of individuals. I don't need to know what the clerk at the tax office does in his spare time and which party he votes for. And he has to process my tax assessment regardless of whether he likes me or the colour of my skin. Likewise, the clerk's supervisor is not allowed to consider that person's sexual orientation, dietary habits or religious affiliation in his or her performance evaluation. These achievements are being challenged in agile, post-bureaucratic organisations.

Isn't it just that with new freedoms in the world of work, new problems arise?
Freedom is always relative. For example, disposing of bureaucracy can make decisions more difficult and lead to false considerateness. Many agile models have gaps in the regulations, the scope for interpretation by those involved increases as a result. This is intentional and can be productive, but it can also put too much pressure on individuals. Individual latitude can also mean latitude to abuse power.

Do you know of companies where the relationship between freedom and control is in perfect equilibrium?
There is no such thing as perfect organisation. Every solution to a problem leads to problems with the solutions, to quote Niklas Luhmann. But some companies have been operating post-bureaucratically for a long time now and handling it reflectively. One example is the software developer MaibornWolff, around 500 employees, which was reorganised eight years ago, in other words long before the hype about agility. Maybe that's why the managers there use that tool dispassionately. For example, they are very open about the fact that dispensing with formal management tools makes managers' work more taxing.

What other price has to be paid?
You can't just mandate things. For example, if you allow employees to dispose freely of their time and to spend a certain part of their working hours on their own projects, you have to accept that even when the company's workload is high. You don't use the bargaining power and bartering which is common in many organisations. The manager has to tolerate that situation if it benefits productivity overall. It's important not to pretend that everything has to run smoothly.

How does that work?
They dispense with the illusion of a universal solution and instead apply a concept that could be described as heterogeneous self-organisation. One department can work entirely independently, another may need a strong hierarchy. That's a pragmatic approach. I always advise companies to protect themselves from identifying with a specific method. You should always consider such methods and the consequent problems dispassionately. Good organisation means working on very concrete problems. ▬

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