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Lessons Learned from Digital-Only Experiences

Abstract: Digitisation includes technical systems that communicate with each other but can only communicate the characters for which input and output interfaces are available. That is a fraction of what human communication is all about. The resulting lack of contact bothers us and we find it inadequate. In times of Covid-19 we have learned that the longer the phases of exclusively digitally executed workflows and processes last, the more we realise that we lack activities that do not require digital technology, as it was a matter of course before Corona. This leads us to ask what it means when we become avatars or robots of ourselves. The following demonstrations of an exclusively digitally organised summer festival and a fully digitised library can give us insights into the purely digital perspective.

Keywords: Digitisation, datafication, low contact, virtualisation

Lehren aus ausschließlich digitalen Erfahrungen

Zusammenfassung: Die Digitalisierung umfasst technische Systeme, die zwar miteinander kommunizieren, aber nur die Zeichen kommunizieren können, für die Ein- und Ausgabeschnittstellen vorhanden sind. Das ist ein Bruchteil dessen, was menschliche Kommunikation ausmacht. Die daraus resultierende Kontaktlosigkeit stört uns und wir empfinden sie als mangelhaft. In Zeiten von Covid-19 haben wir gelernt, je länger die Phasen ausschließlich digital ausgeführter Arbeitsabläufe und Prozesse andauern, desto mehr erkennen wir, dass uns Tätigkeiten fehlen, die keine digitale Technik benötigen, wie es vor Corona selbstverständlich war. Das führt uns zu der Frage, was es bedeutet, wenn wir zu Avataren oder Robotern unserer selbst werden. Die folgenden Demonstrationen eines ausschließlich digital organisierten Sommerfestes und einer vollständig digitalisierten Bibliothek können uns einige Einblicke in die Perspektive des rein Digitalen geben.

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Covid-19 has taught us the great importance of the exclusively digital operation of libraries and information facilities. Libraries would not be able to operate without information technology and appropriate hardware and software. For starters, mobile work and working from home would be impossible. The necessity for this during the pandemic has, not surprisingly, given the further digitisation of library services a major push. But that is hardly enough. More than ever, libraries are challenged to embrace megatrends of IT development such as artificial intelligence, big data, or robotics. At the same time, we are learning that the longer the phases of exclusively digital workflows and processes last, the more we miss activities that require analogue action and do not need digital technology—as was commonplace before Covid-19. This leads us to the question of what it means to work digitally and become ever more avatars or robots to ourselves. The following fictions of a summer party being hosted entirely digitally and a fully digitised library may give us some insights into the "digital only" perspective.

1 Enjoy a virtual summer party

We envision a company summer party soon with lots of guests, a big buffet, and a snappy combo making music for you to dance to. All participants will have—and will be required to have—their company smartphones with them. If anyone forgets their smartphone, they will not be admitted to the event. Please note that you are not welcome per se but must be admitted. It is not your person, but the registration by means of the confirmation code that is a prerequisite for participation in the summer party. The welcome address by the management at the beginning will be—how could it be otherwise—broadcast digitally. No big screen is needed for this, because all participants have their smartphones ready. The video is streamed on demand, any synchronicity of communication is suspended—so it does not matter whether you watch it as it is scheduled in the programme or before or after the event. You may, of course, wonder whether the welcome note makes any sense at all.

To get to know one another, as perhaps some do not know everyone yet, they should scan each other's QR codes, which also contain the certified company ID. The QR codes immediately transfer all personal data—regardless of whether the guests might agree or not. The ID checker app, which must be present on the company's own smartphones, confirms the identity of each guest. This app cannot be installed on private smartphones for company compliance reasons, so individuals wanting to use their own phones are not eligible to attend the summer party. It is unlikely, but not impossible, that cordial or other kinds of interesting contacts will be made. On the one hand, it is a challenge to get to know someone in this way. On the other hand, we can be more sympathetic to people if we have their contact details but do not know them beyond that.

All drinks and food offered at the buffet are labelled with barcodes providing information on type, origin, and ingredients in percentages. The code also contains information on possible intolerances. In addition, an app is installed on the company's smartphones that checks the individual consumption tolerance of the respective employee against the quantity of substances ingested. The use of this app is voluntary, as it requires the disclosure of health data; the company's employees can decide on this for themselves. However, as the benefits of this kind of data tracking are obvious to everyone, the result is that almost everything that is consumed at the summer party is subjected to a comprehensive data analysis evaluating the digestibility and wholesomeness of the ingredients and assessing consumption patterns. Aspects of appeal and taste do not play a role. Anyone who exceeds the alcohol limit of 1.8 per mile automatically gets a driving ban for the company car. The app then orders a taxi to take the person home at their own expense. Unfortunately, many delicious morsels at the buffet are not touched because the evaluation of the food's contents prohibits its consumption. Digital dinners do not awaken appetites or hunger pangs—they are health checkers. For future parties, it might be enough to offer a buffet with 3D-printed dishes and only cheap finger food for consumption.

Another app informs about the risk of stomach, intestinal and flu infections if guests get too close to each other while eating, talking, or dancing. Of course, this discourages rather than encourages contact between guests, hardly anyone wants to talk to others anymore. Instead, everyone stares at their smartphones, which warn of illnesses and other risks. To prevent the guests from being annoyed by loud music, the band's music is transmitted via AIR Bluetooth headphones. Everyone can set the decibels they need for dancing. Additional music channels are available in case some guests are not ready to listen to the party music.

Guests can of course bring their own playlists. This way, participants can listen to music they like with their eyes closed, but there is no reason for them to dance together. Why should they? Everyone would rather groove alone with their headphones than with others – it is much healthier. In the unlikely event that intimate contact occurs during the party, it is strongly recommended that a suitably certified app is used before engaging in such activities. All in all, intimate contact during or around the summer party, as in everyday professional life, is strongly discouraged. The risks are simply too high. As you can see, digital tools spoil any fun by putting analysis and control in the foreground and keeping you under constant observation.

Certainly, this is not the intended result. On the contrary, the management is very interested in the well-being of its employees. Therefore, it supports communication at the party by providing topics of conversation in the form of DOI-referenced image and text publications. The conversations are recorded, if the interlocutors agree, so that statements made in them can be reused and quoted. Altmetrics-supported fact-checking assesses the truthfulness of statements. Statements or images that originate from social networks are automatically marked as "not valid", as social media are known to be unreliable sources. The traceability of the recorded statements is ensured by the company ID, the DOI of the statements, pattern recognition, and time stamps. Guests involved in the conversation receive a copy of the audio and video streams, which they can add to or revise to send back to their interlocutors or post on Facebook and Twitter. The conversations become a technical affair and serve primarily as a reference. Everything is recorded and saved, but nothing is of interest.

The company provides a summer festival blog to which guests must submit all photos and videos. A team of moderators selects the best items for publicity and publishes them after checking for consistency. The festival blog does not contain any confidential information, it is unencrypted. The responsibility for encryption lies with those having confidential conversations or sending confidential information. The company thereby safeguards itself against data protection problems. The same applies to compliance with data protection requirements and copyright regulations, particularly in the case of image material.

The company certifies itself an immense success with regarding the summer party, which a guest survey confirms with great acclaim—although it is not known whether a critical mass of guests took part in the survey. Many participants explicitly say that such events should take place again. People do not see this summer festival as a computer game and consider such an Augmented Reality summer festival innovative.

2 Imagine a purely digital library

Is the summer party described as imaginary as the attribute "fictional" suggests? Probably not–after all, we already experience many of the technologies and tools mentioned in the example in daily life or at the workplace. But no one wants to be among the sceptics who question the fun of a festival designed in this way: Why not have such a party? That is up to all of us. Therefore, I would rather ask a counter question: Is this scenario what we want to achieve with digitalisation? What could such a scenario mean for libraries?

Considering this, it is interesting to imagine a future library. According to the scenario described above, this would be a completely digitised library and it could look something like this: Direct and immediate contact between staff and users will only take place in exceptional cases. As soon as the library opens its doors, robots will approach the users to answer questions or check out or take back books. If the robots are unable to answer questions or are overwhelmed with ordering and returning books, the user will be given an appointment to consult a staff member. For this purpose, there are some counters in the basement of the library building where the staff is not available all the time, but only for two hours in the morning and afternoon. The service is indeed not attractive. This is deliberate for reasons of efficiency. Contact with the library should be exclusively via the robots.

Anyone who needs a workplace in the library must reserve it in advance. Each user has a quota of twenty-four presence hours per week to spend in the library reading room. Users who exceed or attempt to manipulate this quota of hours will be blocked from accessing the internet on campus and from using the food and beverage vending machines. The Internet and the vending machines will be unlocked upon payment of a penalty fee. Access to digital books, information, media, and magazines is the primary usage scenario and will be provided both on and off campus via secured access points. Violations of access rules, such as sharing logins or passwords, are severely penalised. Those wishing to borrow print media need a certificate from their tutor or teacher and can borrow a maximum of ten print media for fourteen days. Academics have a loan period of three months and can borrow up to fifty print media. Junior academics need a borrowing authorisation from their supervisor. It is recommended to scan all borrowed print media for personal use as soon as possible. In this way it should be possible to protect the print copies and return them in time.

Staff work from home as much as possible. For personal meetings in the library building, office space is only available for half of the staff. Meetings in the library must be planned accordingly. Communication occurs mainly by telephone or video conferencing. The library management welcomes the staff every morning with a video message. The staff usually work on their tasks via the internet by using the appropriate applications. Targets are set for the completion of tasks, which are evaluated daily by computer algorithms. Those who miss the set targets and do not catch up on the same day have to reckon with salary cuts. The same happens if errors detected by machine intelligence are not corrected immediately. Overtime to compensate for working hours is not recognised. Significant increases in performance are rewarded with bonuses. Once a year there is a digital company party as described above. All employees must attend this event and should be engaged and cheerful.

During the Covid-19 pandemic, the surge in digitalisation triggered by infection control meant that many services could be delivered with a minimum of direct, physical contact between providers and clients, and between people in general. Most services even had to take place in low-contact modes. Low-contact means that multi-layered interpersonal processes and forms of communication are encoded and transmitted "contagion-free" as images, language, and texts based on communication technologies. Communication that cannot be transmitted as text, image or sound cannot be represented within these technical systems. Only those signals can be transmitted for which there are input and output interfaces. Of course, this is only a fraction of what constitutes human communication. The resulting lack of contact disturbs us and is perceived as deficient. The lesson that digitalisation is always only a part of the whole should also accompany us independently of Covid-19.

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