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Article

Recruiting digital talent: The strategic role of recruitment in organisations' digital transformation

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Abstract

Recruitment plays a central role during digital transformation because companies in many industries need to hire employees who possess IT-related knowledge, skills and abilities to digitalise their products, services and processes. However, extant research so far mainly has focussed on the use of digital technology in recruiting processes and its outcomes, whereas strategic aspects have received little attention. Based on 26 interviews with recruiters in 22 organisations, this study examines the interplay between recruitment and digital transformation beyond the use of digital technology in recruitment, focussing on more strategic aspects. The study examines recruitment's role in organisations' digital transformation. We found that the recruitment of digital talent as a new target group triggers change within the company, and does so in three ways: First, recruiters have realised the necessity to adapt their measures and processes to the new target group. Second, recruiters have developed a new self-understanding. Third, recruiters have recognised the need to support the organisation's digital transformation by taking on a bridging function. Our study makes two contributions: First, we identified two new roles for recruitment during digital transformation: It acts as a 'sensory organ' that enhances the organisation's absorptive capacity; and it takes on the role of a 'mediator' between external and internal groups. Second, this study builds on the human resources (HR) literature by analysing the strategic implications that digital transformation imposes on recruitment, highlighting recruitment's part in renewing an organisation's human resource base, which is crucial for its digital transformation.

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Digitalisation is one of the most revolutionary developments in business and society during the past few decades, with the potential to change, fundamentally, the way organisations operate and create value (Loebbecke and Picot, 2015). In many industries – such as retail, finance and auto manufacturing – 'born-digital' organisations have surfaced to compete with traditional – that is, pre-digital – organisations (Loebbecke and Picot, 2015). As a consequence, many pre-digital companies feel that a digital transformation of their operations is crucial, a process defined as the 'transformation of business activities, processes, competencies and models to fully leverage the changes and opportunities brought by digital technology' (Demirkan et al., 2016: 14). The goal of digital transformation is for companies to increase their competitiveness and catch up to born-digital organisations without being disrupted (Vial, 2019).

One of the most significant challenges for pre-digital companies during digital transformation is related to their human resources. While digital transformation of products, services and processes requires employees with IT-related knowledge, skills and abilities (KSAs), that is, *digital talent*, many employees at pre-digital companies lack these KSAs. For instance, some reports have stated that up to 54 percent of organisations admit that their lack of digital competencies impedes digital transformation (Buvat et al., 2017). As a response to this lack of digital competencies within their workforces, many pre-digital companies seek to hire digital talent. For instance, to achieve the goal of developing more than 60 percent of its operating system in-house, Volkswagen expects to increase its staff of IT professionals from 2,000 employees in 2019 to more than 10,000 by 2025 (Menzel, 2020). However, because the demand for digital talent by far outweighs the supply (e.g. Kerkmann, 2019), many pre-digital companies have been struggling with digital transformation.

Given that one of the tasks in recruitment is to generate a large pool of qualified candidates that fit companies' requirements (Barber, 1998), it becomes clear that recruitment also plays a role in the digital transformation of pre-digital companies; that is, recruitment needs to support digital transformation by attracting digital talent. However, pre-digital organisations have found recruiting digital talent to be challenging for at least two reasons: First, the limited supply of digital talent, combined with high demand, leads to a 'war for digital talent' (Edelman, 2012) among both pre-digital and born-digital organisations. Second, unlike born-digital organisations, pre-digital organisations are rather unfamiliar with the new target group of digital talent, *and* these skilled workers likewise are unfamiliar with these pre-digital organisations. Consequently, attracting digital talent is challenging especially for pre-digital organisations.

So far, we know very little about how recruitment deals with the challenges in attracting workers from this highly courted group. Extant literature on the relationship between recruitment and digital transformation instead has focussed on examining the efficacy of various tools and resources (e.g. company websites, referrals) for disseminating

information about jobs to potential applicants (e.g. Nikolaou, 2014; Van Hoye and Lievens, 2007); the influence of organisational practices, for example, corporate social responsibility (e.g. Klimkiewicz and Oltra, 2017; Turban and Greening, 1997) and talent management (e.g. Ewerlin, 2013), on employer attractiveness; and the use of electronic human resource management (e-HRM) and e-recruitment tools (e.g. Holm, 2012; Llorens, 2011; Strohmeier and Kabst, 2009). Addressing the gap is important, as it provides a more comprehensive perspective on recruitment and adds insights into recruitment's strategic role in the digital transformation of pre-digital organisations.

The present study addresses this gap and seeks to broaden the current discussion on recruitment in the HR literature. Based on interviews with 26 HR professionals in recruiting and employer branding from pre-digital and born-digital organisations with business locations in Germany, we examined how recruiters seek to attract digital talent. Our study contributes to the HR literature in two ways: First, it extends our knowledge of recruitment's roles. Prior studies have highlighted how recruiters' primary task is to identify and attract potential employees (Barber, 1998). However, our findings have revealed two additional roles that recruitment departments play during digital transformation: The first is to be a 'sensory organ' whose task is to transfer external knowledge to the organisation. The second is to be a 'mediator' that connects different groups, particularly digital talent and departments with vacancies. Interestingly, our findings indicate that actually attracting digital talent really is a task for the departments with vacancies, not recruiters.

Second, the study contributes to the HR literature by analysing digital transformation's impact on HR-related activities at a strategic level. Thus, we extend the HR literature, which so far has focussed mainly on the use of digital technologies in HR-related activities. Our study shows that recruitment is at the forefront of one of the organisation's main challenges in the course of digital transformation: renewal of the human resource base.

HRM, recruitment and the digital transformation

Employee recruitment is a key task for the HR department. *Recruitment* refers to 'those practices and activities carried out by the organisation with the primary purpose of identifying and attracting potential employees' (Barber, 1998: 5). For instance, the HR department may use ads to raise awareness of the organisation among job candidates, present information to job seekers to increase employer attractiveness or establish an employer brand that affects candidates' job choices (Lievens and Slaughter, 2016). The primary goal of these practices and activities is to generate a large pool of qualified candidates, allowing organisations to be more selective in the hiring process and help ensure high-quality hires (Schmidt and Hunter, 1998).

Given the importance of generating a large pool of qualified candidates for organisations, researchers have paid much attention to this topic (for recent reviews, see Breaugh, 2013; Dineen and Soltis, 2011; Lievens and Slaughter, 2016). Specifically, researchers have investigated factors that influence outcome variables during one of the three stages of the recruitment process—generating a pool of candidates, maintaining applicant status and influencing candidates' job choice decisions (Barber, 1998; Dineen and Soltis, 2011). For instance, they have analysed the efficacy of various tools and resources (e.g. company websites, referrals) to disseminate information about jobs

to potential applicants (e.g. Nikolaou, 2014; Van Hoye and Lievens, 2007); information content's effect on organisational attractiveness (e.g. Avery, 2003; Jones et al., 2014); the influence of recruiter behaviour and characteristics of candidates' confidence in the organisation (e.g. Slaughter et al., 2014); and the relationship between job-offer timing (e.g. Becker et al., 2010), experiences during on-site visits (e.g. host likableness, see Turban et al., 1995) and candidates' decisions to accept job offers.

While this line of research provides important insights for organisations on how to increase their attractiveness for job candidates, this study set a broader focus: Instead of focussing on a specific factor and analysing its relationship with recruitment-related outcomes, we explored recruitment's role in the digital transformation of pre-digital organisations. Digital transformation is one of the most powerful developments in the business world, impacting organisations so severely that in many industries (e.g. music, finance, law), digital business models are replacing traditional ones (Bourreau et al., 2012), which threatens pre-digital companies' existence. To secure their survival, pre-digital companies are undergoing radical organisational changes, for example, implementing a digital transformation strategy (e.g. Chanias et al., 2019) or transforming their business model (e.g. Li, 2018).

Although HR research on digital transformation and digital HRM has been growing (Strohmeier, 2020), most prior studies have focussed on the question of how digital technologies affect HR-related activities (for a review, see Chapman and Gödöllei, 2017; Stone and Deadrick, 2015). For instance, they have analysed the efficacy of company websites and social networking sites in attracting applicants (e.g. Baum and Kabst, 2014; Nikolaou, 2014); investigated the adoption of e-HRM (and e-recruitment) within organisations (e.g. Llorens, 2011; Strohmeier and Kabst, 2009); and researched the consequences of e-HRM use (e.g. Ruël et al., 2007) and of e-recruitment (e.g. Holm, 2012). While we acknowledge the importance of these and related HR research streams, we argue that recruitment's role in the digital transformation of pre-digital organisations is much bigger, that is, recruitment is actually at the forefront of organisations' digital transformation, as it is responsible for supplying one of the most important organisational resources: employees with IT-related KSAs (i.e. digital talent). Such talent currently is a scarce resource, as pre-digital and born-digital organisations from many industries are searching for such workers. Simultaneously, recruitment personnel within pre-digital organisations lack experience on how to deal with members of this new target group, further increasing the challenge of recruiting digital talent.

So far, we know very little about how pre-digital organisations' recruiters deal with the challenge of securing a supply of digital talent. This study provides insights into this crucial question for many pre-digital organisations. Specifically, we explore how recruiters seek to attract digital talent to support companies' digital transformation.

Methods

Data collection and sample

We collected data from recruitment professionals, as they are particularly knowledgeable on our research topic, using exploratory semi-structured interviews (Edmondson and

McManus, 2007) that allow us to gain rich insights into interviewees' experience with and perceptions of job candidates. We conducted 27 expert interviews with HR professionals in recruiting and employer branding from organisations with business locations in Germany.

When selecting our participants, we ensured variation through criteria that differentiated between organisations – such as industry (Holtbrügge and Kreppel, 2015), organisational size (Botero, 2014), employer attractiveness (Lievens and Slaughter, 2016) and employer familiarity (Baum and Kabst, 2014) – to get insights from professionals working for a variety of organisations that also differ in the extent to which they are affected by digital transformation. Our sampling strategy focussed on pre-digital organisations, but we also included four born-digital organisations through the sampling criteria mentioned above to compare pre-digital and born-digital organisations' experiences. Organisations were identified through the sampling criteria by consulting employer-attractiveness rankings, career websites and blogs, as well as expert literature on labour market trends. We also applied snowball sampling on a small scale: Some of our participants mentioned organisations known for successful recruitment of digital talent, or for experiencing particular difficulties in doing so. Furthermore, some interviewees recommended suitable participants within their companies. We noted these references and recommendations, and checked whether they fit into our sampling criteria, then decided whether to include them.

Most companies in our sample belonged to the group of traditional – that is, pre-digital – organisations. We selected experts from both strategic and operational areas of HR departments to gain more exhaustive insights into our research topic. While the strategic perspective promises comprehensive and foresighted assertions, the operational perspective provides more detail due to direct interaction with applicants and labour market developments. Therefore, we included employer-branding experts (strategic view) and recruiting experts (operational view) in our sample because both functions ultimately aim to attract qualified candidates. In other words, while employer branding experts define the employer brand's core message, thereby formulating the employer branding strategy, recruitment experts implement this strategy by creating attractive recruitment content and sharing it via different channels. For ease of reading, we will refer to both groups using the label 'recruiters'. An Internet-based search via the professional social networks Xing and LinkedIn, and via company websites helped identify appropriate respondents. As this study's purpose was to maximise information, the 'point of redundancy' (Lincoln and Guba, 1985: 202) determined sample size and was reached when additional interviews did not offer any new information.

Of the 27 interviews, 13 were conducted via phone, 11 face-to-face and three via video calling. After the interview phase, we excluded interview No. 23 from the analysis due to the interviewee's lack of professional appropriateness. The remaining 26 interviews lasted between 24 and 75 minutes each, or 45 minutes on average. Table 1 provides an overview of the participants and organisations.

Interview process

We conducted problem-centred interviews, which are based on an interview guideline with open-ended questions. Such interviews explicitly ascribe requisite investigative

capacity to offhand questions, thereby allowing for additional inquiries and encouragement (Witzel and Reiter, 2012). We designed interview guidelines (available on request) comprising two introductory questions, two main blocks with three questions each and two closing questions. The introductory questions aimed to gather participants' demographic data, as well as the scope, content and focus of their current position. The first block focussed on challenges that interviewees currently perceived in recruiting due to digital transformation, as well as which threats they saw arising that these challenges elicited. The second block comprised questions about how current challenges were handled, what measures were taken and how the participants rated these measures' success. The interviewer then asked for any additional important aspects that had not yet been discussed (Gioia et al., 2013). A short questionnaire at the end of the interview served to collect general information about the interview partners and their organisations. The interviews were conducted from June to November 2017, and the interview recordings totalled approximately 20 hours and were transcribed verbatim.

Data analysis

The data analysis was conducted primarily by the first author, who coded and categorised the data during the interview phase, adapted the data collection respectively, added further data to the analysis and revised the category scheme in turns. Both authors spent considerable time discussing the category scheme in progress, aligning with the data until the category scheme fit the empirical material and both researchers agreed with the results.

To master the key challenge in qualitative research, that is, 'making sense of [the data] to generate a valuable theoretical contribution' (Langley and Abdallah, 2011: 106), we used the Gioia methodology (Gioia et al., 2013). Figure 1 shows the structure that we identified in our data and summarises the results in terms of first-order concepts, second-order themes and aggregate dimensions.

During the first step of the data analysis, we conducted a first-order analysis in which we scoured the empirical material for hints on links or ideas for concepts. We used an open-coding approach that adheres to the informants' natural language to be as close as possible to the interviewees' life experiences and 'lived reality' (Alvesson, 2003: 167). As we were interested in the common ideas and concepts across the broad range of our interviewees, we specifically captured the ideas mentioned in at least two interviews, developing categories such as 'Change of forms of communication and use of new communication channels', 'Change of communicated content' and ' Pursuit of authenticity in communication'. A disadvantage of this approach is that the emerging number of first-order categories easily becomes too large to handle. Therefore, we followed Gioia et al. (2013) and merged first-order categories that were very similar to reduce the overall number of first-order categories. For example, we merged the three categories mentioned above and labelled the resulting first-order concept 'Experiment with new channels and content of target group communication'. In the second step, we conducted a 'second-order analysis', in which we abstracted the first-order concepts to 'second-order themes' by clustering the first-order concepts and trying to capture their essence. During this step, we recognised that three of the first-order concepts differed in content from the rest of the concepts:

Table 1. Description of firms and interview partners.

Firm ID	Industry sector	Number of employees	Interview partner ID	Position of interview partner (focus: strategic vs. operational)	Gender	Age (in years)	Experience (in years)	Interview mode	Interview duration (in minutes)
U01	Machine construction	11,500	IP01	HR business partner (operational)	M	49	21	Face-to-face	75
			IP02	Global HR executive (strategic)	M	54	13	Face-to-face	41
U02	Software/ IT	84,000	IP03	Recruiting expert (operational)	F	n/a	20	Video call	54
U03	Software/ IT	11,000	IP04	Senior HR manager (operational)	F	n/a	20	Face-to-face	39
U04	Public service	95,000	IP05	Manager HR marketing and recruiting (strategic)	M	n/a	25	Face-to-face	56
U05	Energy	55,000	IP06	Talent management expert (strategic)	M	36	06	Face-to-face	53
U06	Machine construction	2,000	IP07	HR business partner (operational)	F	26	02	Phone call	54
U07	Agriculture	17,000	IP08	Employer branding and recruiting executive (strategic)	F	n/a	05	Phone call	42
U08	Machine construction	30,000	IP09	HR business partner (operational)	M	59	40	Face-to-face	51
			IP17	HR business partner (operational)	F	26	03	Face-to-face	32
			IP18	Strategic university marketing expert (strategic)	F	26	03	Face-to-face	24
			IP25	Strategic HR management (strategic)	F	28	05	Face-to-face	32
U09	Conglomerate	156,000	IP10	Manager digital employer branding (strategic)	F	n/a	06	Phone call	52
U10	Retail	15,000	IP11	HR business partner (operational)	M	53	30	Phone call	53
U11	Retail	50,000	IP12	Manager HR marketing (strategic)	F	n/a	12	Face-to-face	57
U12	Software/ IT	1,200	IP13	HR business partner (both)	F	24	04	Face-to-face	45
U13	Technology	350,000	IP14	HR business partner (operational)	M	36	20	Phone call	60
U14	Machine construction	90,000	IP15	Manager employer branding (both)	F	37	21	Phone call	47
U15	Energy	1,000	IP16	HR business partner (operational)	F	28	06	Phone call	43
U16	Insurance	150,000	IP19	Manager global employer branding (both)	F	n/a	06	Phone call	47
U17	Paper	1,000	IP20	HR business partner (operational)	F	28	07	Video call	39
U18	Finance/ software/ IT	90	IP21	Global HR manager (both)	M	31	05	Video call	36
U19	Automotive	88,000	IP22	Manager recruiting and talent acquisition (strategic)	M	n/a	12	Phone call	42
U20	Public service	180,000	IP23	Advisor employer branding (strategic)	F	30	04	Phone call	07
U21	Technology	390,000	IP24	HR business partner (operational)	M	n/a	09	Phone call	50
U22	Consulting	7,000	IP26	Manager employer branding and HR marketing (strategic)	M	n/a	20	Phone call	51
U23	Retail	105,000	IP27	Expert talent management (both)	F	n/a	05	Phone call	29

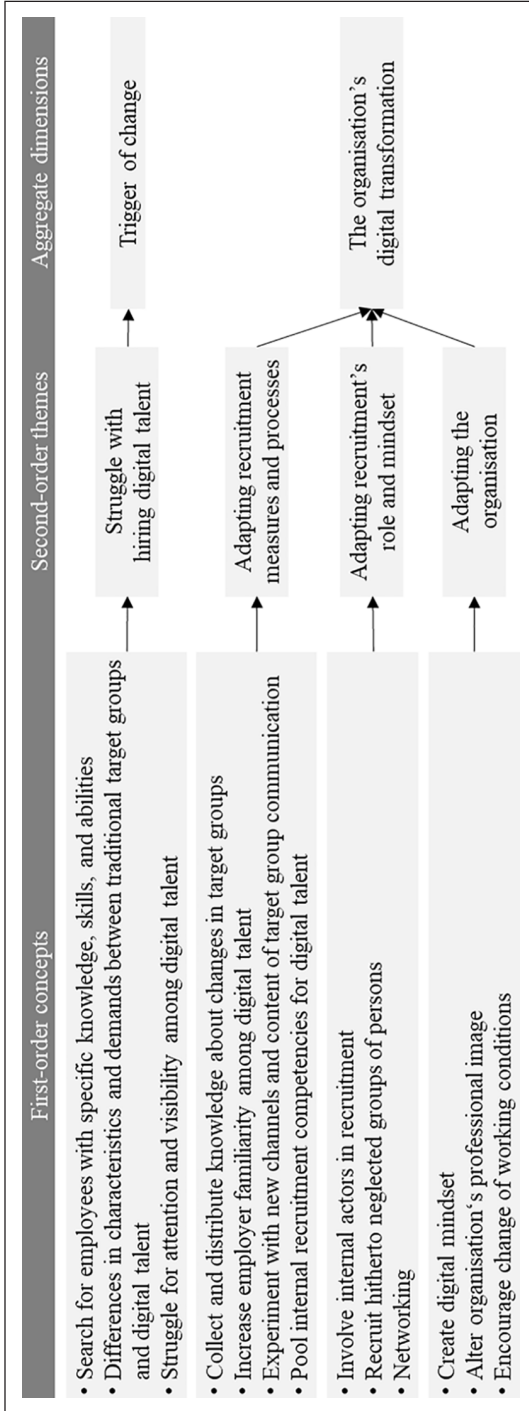| First-order concepts	Second-order themes	Aggregate dimensions
• Search for employees with specific knowledge, skills, and abilities • Differences in characteristics and demands between traditional target groups and digital talent • Struggle for attention and visibility among digital talent	Struggle with hiring digital talent	Trigger of change
• Collect and distribute knowledge about changes in target groups • Increase employer familiarity among digital talent • Experiment with new channels and content of target group communication • Pool internal recruitment competencies for digital talent	Adapting recruitment measures and processes	
• Involve internal actors in recruitment • Recruit hitherto neglected groups of persons • Networking	Adapting recruitment's role and mindset	The organisation's digital transformation
• Create digital mindset • Alter organisation's professional image • Encourage change of working conditions	Adapting the organisation	

Figure 1. Data structure.

Table 2. Supplementary quotes illustrating the data structure.

Trigger of change
Struggle with hiring digital talent

Search for employees with specific skills
The insurance industry is also facing a major shift towards digitalization. Which means for us that we simply need the knowledge on board to remain future proof. (IP 19)
But also, programmers for some positions and above all [. . .] so-called interface people who have held a position in purchasing, HR, or finance and who bring the IT side with them [. . .]. That means people who know the function and have IT experience. That is what we are looking for very much at the moment. (IP 10)
And that the people who can do 'digital', that this doesn't just mean programming some kind of code there, but that they can think the whole process digitally. People who also have a mindset, that you try things out and so on. And simply dare something new. (IP 06)

Differences in characteristics and demands between traditional target group and digital talent
The IT people have their finger on the pulse of time. At least when you really go to the developers: It's the latest technology, great projects and so on. And they are, if something new comes along, more willing to change than the non-IT people. (IP 08)
One difference lies in the shifted valences, the values of the applicants. Until 4 years ago, the first question at the career fair was: What do I get for an entry-level salary? Now the first question is: What are my working hours? What is the work-life balance? Do you have a company sports group? Do you have a parent-child office? Well, the demands have actually shifted, changed. (IP 15)
The recruitment of digital talent is difficult. People who do these jobs usually do not have a common denominator when it comes to the course of study, when it comes to the place of study, when it comes to having a degree at all. This is what differentiates the people we are looking for now from those we had recruited before. (IP 22)

Struggle for attention and visibility among digital talent
For us, it is definitely a challenge to approach such talents and to win them over, because we are not on a short list with the Google's and IBM's and Microsoft's or Apple's of this world (*laughs*). These are the big brands that digitally talented individuals might be attracted to in the first place and not even know that an insurer is looking for them. (IP 19)
One challenge is certainly [. . .] this whole issue of 'information overload' when I look at something like online, social media channels, Facebook. [. . .] There is an enormous amount of information pouring in on [the digitally talented individuals] every day. In this case we are in a battle for attention [. . .]. (IP 26)

The organisation's digital transformation
Adapting recruitment measures and processes

Collect and distribute knowledge about changes in target groups
We also have data tracking systems. That means we look at how our measures are already performing. In other words, when we communicate on social media channels, we have set up a reporting system to see: Has it actually reached the digital target group? What was the interaction rate, in other words, how well is the content being received? [. . .] Here, too, conclusions can of course be drawn about behaviour and appropriate communication. (IP 19)

(Continued)

Table 2. (Continued)

We have recently introduced a so-called 'kick-off meeting' with the hiring department. The key account recruiters meet with the [hiring department] and advise: 'Look, in the last few searches we've seen that these and those kinds of people are more likely to apply.' Or: 'What you are looking for will not be available on the market. What requirements can you come down from?' That is, we try a consultative approach. (IP 22)

There was this active sourcing think tank, where we invited external speakers to talk about active sourcing and share best practices. That's how we get external knowledge in. (IP 18)

Increase employer familiarity among digital talent

In some cases, we have the situation that applicants have never seen [U22] before and don't know what it is. (IP 26)

Together with the 'Corporate Innovation' department, we have decided to support a so-called start-up centre in Nuremberg. [. . .] There start-ups are given the opportunity to rent office space, and this is subsidized and sponsored by us. This gives us a different target group, you have that cool touch that you don't really have as a supplier (laughs) and you also get into conversation with potential employees again, you have visibility. People walk in and out and see [U14] and maybe they get the idea that this could be an employer. So, we have also increased our visibility in places and with target groups that we didn't have before. (IP 15)

Experiment with new channels and content of target group communication

You have to become more courageous at one point or another to simply try things out, what works or what doesn't work. (IP 08)

Our approach is basically well-structured, but it is much more trial-and-error compared to the past. (IP 18)

[In terms of job ads] we've done a lot of things, a lot more stories, away from text. We're changing our job descriptions. (IP 03)

We have to get more involved with new media. (IP 09)

What we do now [as a new approach] is to develop a little 'serious game'. That's a game, which young people can download for free as an app, and which simulates [our working world]. We sort of [want to] generate interest in a playful way. This means, young people can take a look at: 'What kind of organisation is this?', in order to gather information and then be attracted as an applicant [to our company]. (IP 05)

Pool internal recruitment competencies for digital talent

We really do have specialized recruiters or sourcers [in our] recruiting centre that deal exclusively with this topic [means: recruitment of software developers]. (IP 08)

- Interviewee: We are conducting a pilot project. We call it the 'Joint Recruiting Team'. We looked at studies and there are actually already books on 'Recruiting IT Professions'. And then trial-and-error. We advertised [a position] and then saw that in 2 weeks [only] one application would come in. And then we rewrote [the job ad] again. And that worked out quite well.
- Interviewer: Now you are using the plural. Who is involved in this project?
- Interviewee: We have six business units, [U09] has a network and matrix organisation, that is, by regions and business units, and representatives from all business units in Germany are involved. (IP 10)

(Continued)

Table 2. (Continued)

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Adapting recruitment's role and mindset

Involve internal actors in recruitment
For example, we have recently introduced an employee-referral program, with bonuses that are then paid out. That was a huge step for us. [. . .] You could already see that this program was a 'booster'. We received significantly more applications from employees for whom it is simply an incentive to go up to their buddy and say, 'Hey, look, there's a job opening'. (IP 20)
It is also really important to win people, real employees, as ambassadors for the company. Because: It's okay, but it's not enough if at a trade fair or webinar only the HR manager is there and reports something second-hand, but it is the project manager who makes the difference. (IP 06)

Recruit hitherto neglected groups of persons
And we discuss this, for example, comparatively intensively, as do some others: 'In case of doubt, what share can and will a "flexiblework force" take in the business?' (IP 26)
We have to trust more in people's potential and less in getting someone who has the right degree or has done something with embedded before. (IP 25)

Networking
I believe that it is important to seek exchange, to seek sensitization as well. So that the [hiring] departments also know what we are actually doing. How we do it. And the departments are also sensitized to understand that these people, the target groups they are looking for, do not stand in line to work with us. (IP 22)
Then we relatively often work together with chairs, for example with [a technical university], specializing in mechanical engineering, computer science. [A professor] from [another technical university] is a member of our supervisory board. So, we build up good contacts there. In this way we try to make ourselves known beyond the borders. (IP 01)

Adapting the organisation

Create digital mindset
Of course [we also have to] get our current team to become more innovative and open. In this respect there are also many cultural measures running. (IP 16)
And that means at the same time that I need an understanding of IT, even in roles that have nothing to do with IT in the first place. (IP 19)

Alter organisation's professional image
Anyway, we have always fought against being [perceived as] very traditional and old-fashioned. If we can't get the Group to keep up with the digital change, we're going to fall further and further behind. (IP 10)
Two years ago, we made another major change to our employer image. It is our aim to straighten out our image. Everything that we are tasked with, with every mail, every conversation, every content, every film that we shoot, to explain again and again: 'Yes, we are [U11], but we are an online retailer, we are the e-commerce pioneer!' (IP 12)

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(Continued)

Table 2. (Continued)

Encourage change of working conditions

That's why personnel marketing has a lot to do with credibility, with continuity, with constancy, in order to really create an authentic image. Otherwise you can just drop it. And if you pretend: 'Suddenly we are all agile and all hip, and we are now doing Scrum', and then the employee comes [to her workplace on her first day] and the first thing she gets is a form that she has to fill out with a pencil, then it doesn't fit. (IP 02)

And parallel to this, of course, there was also an extreme cultural change. We have created initiatives, such as [an initiative], where employees met in a workshop on a Friday afternoon, interested employees, and developed initiatives that come from the employees, such as new ideas, new innovations, but also new creative spaces can be created, where the employees are committed to making changes in the company. (IP 16)

Three concepts describe the challenges that recruiters perceive when recruiting digital talent, while the remaining 10 concepts imply recruiters' reactions towards these challenges. This separation of the three concepts resulted in the first aggregate dimension, 'Trigger of change'. We were astonished to see that the remaining first-order concepts could not all be viewed as 'classic' recruitment tasks: While 'Adapting recruitment measures and processes' closely relates to recruiters' everyday tasks, 'Adapting the organisation', for example, by 'Creating a digital mindset', does not belong to their job description traditionally. Three levels of proximity to recruiters' job routines, that is, their daily business, yielded 3 second-order themes that, in turn, resulted in the second aggregate dimension, 'The organisation's digital transformation'. Table 2 provides illustrative quotes through the data structure that we explain in the findings section below.

Findings

Our study's first basic finding is that our participants perceive the impact of drastic changes elicited by technological leaps, particularly digitalisation's impact on all aspects of life. They feel substantive change going on 'outside' the organisation. While some interviewees struggled to verbalise what exactly they have perceived, most clearly articulated their concerns about a highly dynamic environment growing more and more complex and inscrutable. They also mentioned technical manifestations, such as the spread of information and communication on different devices, but also social developments, such as ever-present Internet connections and access to information or altered customer interaction patterns. Moreover, the interviewees highlighted that born-digital companies (e.g. Google, Apple) emerged as serious competitors in all kinds of industries (e.g. automotive) and define the set of competencies that an organisation needs to survive in this disruptive setting. These developments enhanced the feeling of a permanently growing pressure for change:

> Changes evolve much faster than they did in the past. If we just look at the developments of the past nine, 10 years: [. . .] I don't know which new surprises will mushroom within the next decade. Progress is continuously accelerating and accelerating (IP 07).

Recruitment is at the forefront of these developments, with digitalisation creating a demand for digital talent for many pre-digital organisations, as they need to transform their business models, processes and structures. As one of our participants emphasised:

During our data analysis, we discovered that recruiting digital talent as a new target group acts as a key 'trigger of change' (aggregate dimension 1) in an 'organisation's digital transformation' (aggregate dimension 2).

Trigger of change

Struggle with hiring digital talent. As a consequence of digitalisation, organisations in all industries aim to digitalise products, services and processes, leading to a significant increase in demand for digital talent. Our respondents perceived recruitment of such digital talent as being crucial for their organisations' long-term success and survival because the inability to recruit qualified employees implies long vacancies or poorly executed tasks that, in turn, may lead to lost customers and a significant decrease in competitiveness. As one respondent explains:

> We could externally 'buy' [people with the right skills and experiences], but we need [a] budget [for this]. It is as [if] it was a loop. [Whether we have the right team on board to keep up with market developments] makes the difference [. . .] between life and death (IP 12).

Along with the pressure to hire digital talent, recruiters face a significant shortage of potential candidates. They explicitly mentioned drastic distortions in the labour market. Considering that organisations that turn towards digitalised products, services and processes require candidates who possess IT-related KSAs, digitalisation increases demand for such applicants. However, the supply of digital talent does not keep up with the pace of increasing demand, leading to a shortage of qualified candidates:

> In this point, there lies our big challenge: We possess a new technology, for which the labour market cannot supply [a] qualified work force, simply because there exist far too few [qualified persons] in data mining, machine learning, artificial intelligence, [. . .] data scientists (IP 03).

While the shortage in digital talent poses significant challenges for recruiters, our interview partners mentioned that the target group's shift towards digital talent creates another challenge with which recruiters must deal – namely that digital talent differs considerably in characteristics, attitudes and values from members of an organisation's traditional target groups. Specifically, the interviewees highlight four main differences: First, digital talent is very diverse in terms of educational background, with such individuals holding degrees in subjects such as biology, computer science, geoinformatics and computer linguistics, and they acquire their KSAs very differently from most members of traditional target groups, e.g. through online degree programmes or self-instructed learning. As one of our respondents explained:

> When we search for a mechanical engineer, then we know we have to approach the 'classic' universities, which have outstanding mechanical engineering degree programmes and chairs

[. . .]. Concerning the new target groups, we don't have this [knowledge]. [The members of these groups] are partly autodidacts, [or] people who have followed a totally different career path. They perhaps graduated in philosophy, had a part-time job on the side at some small start-up company and got in touch with digitalisation there, and then noticed: 'I'm a very good programmer' (IP 22).

Second, digital talent also differs with regard to motivation. These individuals are much more motivated by professional content and knowledge than members of traditional target groups and, therefore, value personal development and exciting job content much more than long-term relationships with an employer:

The group is actually [. . .] driven by technology. They choose the company for the job, for the exciting project, for the challenging software environment. They are actually technically driven (IP 04).

Third, digitally talented individuals also make very different demands of employers. Although members of both traditional and new target groups demand similar benefits (e.g. flexible working hours), digital-talent individuals' demands often exceed those of members of other target groups because the former are aware of their labour market power. For instance, very early in the application process, digital-talent individuals already are seeking perks or fringe benefits, such as flexible working hours, remote work, a company car, further education or a sabbatical. This indicates that they view perks more as a basic condition than part of negotiations. Also, whereas members of traditional target groups actively approach organisations and try to convince them of their value, digitally talented individuals often remain passive and expect employers to approach them.

Fourth, recruiters reported that digital talent screens potential employers much more intensively before applying than members of traditional target groups, for example, by using employer-rating websites such as 'glassdoor.com' or employer rankings. Therefore, it is important for employers to make a good impression on these websites and rankings. However, recruiters stress that it is equally important that employers send realistic recruitment messages before hiring to avoid early departures by digital talent when they realise that their expectations were not fulfilled. For instance, one interviewed organisation currently undertaking a digital transformation said it tries to provide an honest picture of the current state of its development of digital talent to manage expectations:

I don't think much of describing the famous "golden water taps" [. . .] and then somebody comes here, and all he finds is an earth closet (IP 11).

Apart from the differences between members of traditional and new target groups, the struggle for attention and visibility among members of the new target groups is a further significant challenge for many pre-digital organisations. Because digital talent often remains passive during job searches, many organisations actively court these individuals, resulting in a veritable fight for candidates' attention. However, digital talent is neither open nor willing to receive information about organisations as potential employers in the first place. An HR professional who is responsible for campus recruitment exemplifies this challenge:

[Digitally talented personnel] are difficult to address. So far, we have always had target groups that had a certain interest in approaching companies and in searching contact with companies. That is something I totally miss among the IT/software people. [. . .] [An] IT student said: 'Nope, I actually don't know [this multinational German industrial company] at all and neither me nor anybody [among my fellow students] is willing to deal with it' (IP 18).

Moreover, digital talent appears to lack employer familiarity with pre-digital organisations. According to observations from several participants, digital talent shares a rather narrow 'relevant set' (IP 12) of potential employers. They particularly consider organisations that have a reputation for being a 'digital company' – such as Google, IBM or Microsoft – as potential employers, whereas they pay little attention to organisations that currently are in the process of digital transformation. This further increases the challenge for these pre-digital organisations because their successful digital transformation also depends on their access to digital talent.

To sum up, our interview partners indicate that the target group shift from traditional target groups towards digital talent is challenging. To deal with these challenges, recruiters – as well as the organisation – need to adapt to these altered conditions and demands from the new target group.

The organisation's digital transformation

Triggered by their struggles in recruiting digital talent, recruiters have felt the urge to implement change in three areas: First, they realised that they need to adapt their measures and processes to attract digital talent. Second, they realised the need for a mindset change within recruitment itself. Third, they realised that the organisation needs to transform itself to attract and retain digital talent.

Adapting recruitment measures and processes. From their struggles with the new target group, recruiters have become aware of their shortcomings on information about the new target group. In the short term, many of our respondents have relied on the principle of trial and error when adjusting to the new target group, as they currently lack knowledge on how to best approach digital talent. However, in the long run, recruiters aim to adapt existing measures and processes to digital talent and develop new ones. To this end, recruiters strongly engage in collecting and distributing knowledge about the new target group. We registered a tendency to collect knowledge about emerging trends, as well as digital talent's habits, demands and characteristics. HR professionals feel the urge to keep pace with the latest trends and developments (e.g. state-of-the-art recruitment-process design, recruitment events, technological developments) to recruit digital talent and satisfy such workers' demands. More than ever, our respondents seek contact with internal partners (e.g. sales or IT departments) and external partners (e.g. local authorities, industrial partners, research institutions) to gather information about the new target group:

We regularly ask for feedback from qualitative research groups who judge our [employer branding activities]. [I think this is] important in order to stay on top of things (IP 19).

Recruiters also learn from 'target group experts' (IP 10), such as internal members of the digital target group, interns or even external applicants. They distribute newly gained knowledge about digital talent within the recruitment function. Knowledge is then spread among co-workers and from central to decentralised departments to become responsive to change.

To implement the new knowledge successfully, HR professionals form virtual or physical teams to work together closely and avoid duplicate work caused by coordination problems or a lack of communication, for example, when the corporate strategic recruitment department works on problems that the operational recruitment department already has solved. Thus, they form 'competence centres' to recruit digital talent or fill IT-related hard-to-fill vacancies, either through instruction from recruitment executive managers or self-organised by the recruitment specialists themselves:

> It is important to build kind of a competence centre for critical target groups [such as] the IT target group. [. . .] So, we want to implement to our organisational structure that our recruiters acquire more expertise on these critical target groups (IP 10).

Another reason for forming competence centres is the growing awareness that recruiting digital talent becomes a critical ability in times of labour shortages. In response to digital talent's preferences, especially job candidates' rather passive communication behaviour, various organisations have established or plan to establish new expert functions, for example, an active-sourcing expert who is responsible exclusively for actively approaching potential candidates via social media and other channels, and for giving advice to other HR professionals concerning active-sourcing approaches. This way, organisations ensure that recruitment measures fit digital talent's characteristics and demands.

Another concept that emerges under the theme of adapting recruitment measures and processes is that recruiters intensify their focus on generating employer familiarity among members of the new target group. In the short term, organisations try to increase their employer familiarity among candidates who are searching for a job actively by being listed in employer rankings, visiting job fairs and hosting image and recruiting events in exotic locations. In the long term, organisations invest in image campaigns, online marketing and sponsoring activities (e.g. sports sponsoring) to increase their employer familiarity among job candidates, or they fund business incubators or support student groups and projects to make candidates aware of them. Generally, organisations try to differentiate themselves from their competitors in terms of employer branding content and design to be remembered by digital talent. For instance, they might produce an unconventional recruitment film or conduct several steps in the recruitment process at atypical locations, such as Ibiza or Mallorca. Through these, recruiters try to generate awareness and visibility among highly courted digital talent.

Organisations also experiment with new communication channels and content to meet requirements of digital talent. Concerning communication channels, they use a variety of digital media channels, with the goal of spreading knowledge about the organisation (e.g. by releasing a smartphone game application simulating working life) and enabling interactions with potential candidates (e.g. by using social media or matching tools integrated in career websites). Furthermore, organisations reported that they select channels to

communicate with their new target group more carefully. As digital-talent individuals prefer to communicate about professional content, communication channels that focus on professional know-how, such as trade fairs or webinars, have become more important than career fairs, in which the focus lies on HR-related content, such as working conditions or benefits. Also, organisations increasingly rely on events with informal atmospheres, such as meeting candidates at local sporting events, to publicise professional content and establish relationships with potential candidates, instead of inviting digital talent to an assessment centre. Our respondents also focussed on establishing relationships between their organisations and potential candidates, for example, by recruiting via personal networks of both HR business partners and employees. Moreover, they engage employees from relevant specialist departments (e.g. IT, user experience or project management departments) as ambassadors for employer branding activities, such as employee portraits, which introduce employees and their daily work to potential candidates. Recruiters try to provide authentic insights and increase transparency by demanding reviews on employer rating platforms, or by providing employee reports and portraits. According to our participants, these measures had not been part of the standard repertoire in recruitment in their organisations prior to digital transformation.

Furthermore, our interview partners emphasise that existing recruitment instruments must be adapted to the preferences of an increasingly courted and demanding workforce. For instance, career websites and job ads are receiving makeovers, and the application process is being refined to meet the expectations of digital talent. HR professionals have reduced potential psychological hurdles by limiting the amount of information the applicant must provide, while simultaneously guaranteeing a valid selection process. For instance, digital-talent candidates may no longer be required to send a cover letter or may even be asked to provide a link to their programming record (e.g. GitHub), instead of formal CVs. Thus, recruiters more and more are playing the role of mediators who balance applicants' interests (with a low level of effort and time spent in the process), departments with vacancies (sufficient amount of information about a candidate's KSAs) and the HR department (a fair number of incoming applications, comparability of information).

The interviewees further highlighted that organisations have adapted communication content to digital talent's demands. Digital-talent individuals want to know what the purpose of their work would be at the company to understand their contribution to society. For instance, a representative of a retailer in agricultural products argued that:

> It makes a difference [in recruitment content] whether you develop technology for a tractor or for the purpose of world nutrition (IP 08).

Also, information about organisations' major technologies, current projects and future development of business activities has superseded information on salary and other employer benefits as main motivators:

> I mean, it increasingly matters that money does not take centre stage as [a] motivating factor anymore, but at large, the topic [is relevant]: The task [itself] is important [for potential applicants] (IP 09).

Although adapting recruitment measures and processes is important to meet organisations' increasing demand for digital talent, it is insufficient to fill the gap. Therefore, our interview partners also have begun to broaden their definition of *recruitment* beyond its classical understanding of filling vacancies to meet organisations' demand for digital talent during the crucial stage of digital transformation.

Adapting recruitment's role and mindset. One aspect of broadening the definition of recruitment, and thereby altering its role within the organisation and its mindset, is to focus on collaboration and cooperation with actors who are not essentially involved in recruitment tasks. For instance, HR professionals said that they reinforce cooperation with internal actors. Recruiters try to convince employees that they may contribute to recruitment success by participating in employee-referral programmes, spreading company-associated content via social media and being conscious of their role as company representatives, even in their private lives. Highly motivated employees, particularly from specialist departments, are asked to act as job ambassadors or as representatives at the company's booths at job or trade fairs, as they better understand the needs of digital talent and can provide more information about the organisation and actual jobs. Also, our respondents said they either encourage IT specialists to represent the organisation on external events, for example, by giving guest lectures, or build a virtual team that includes expertise from employer branding, recruitment and specialist departments when taking on the challenge of recruiting highly courted digital talent:

> Of course, we have to rely on our specialist departments to support us in these [job] discussions. [We have to] be present at the [labour] market, at events and symposia, and claim: 'Attention! We are here at a virtual reality symposium,' and 'Watch here: This is what we do as a [company] in this area' (IP 22).

Another respondent even went one step further by hiring an IT specialist for the employer branding team to master the challenge of IT recruitment. This IT specialist provides the recruitment team with first-hand insights on his peer group, such as preferred types of media or communication preferences, and shares his knowledge on subject-specific vocabulary and technical terms to facilitate communication with digital talent. Recruiters also increasingly involve marketing or communication departments in the recruitment of digital talent, especially in communication conception, to benefit from their expertise:

> We, from the HR department, are [in increasingly intense] contact with the marketing [department]. We have scheduled regular meetings, in which we exchange views, and in which we will look [at the question]: 'What do we want to post where?' We have an editorial plan [and] meet once a month (IP 07).

Another approach is to integrate knowledge systematically from other functional departments, especially sales, into recruitment. For instance, an interviewee reported that she expects synergies between experiences acquired at the consumer market, the recruitment of digital talent and other developments at the labour market in general. Recruitment may benefit by integrating expertise from marketing:

> Marketers are busy finding out what the trends in the market are, how to address target groups, how to win customers. [. . .] They learn to have an eye for customers, to be service-oriented (IP 12).

In addition to involving individuals with know-how from other departments, the recruiters suggest improving internal collaboration on aggregate levels, for example, with higher-level units (vertical collaboration), such as the strategic development department or top management, and same-level units (horizontal collaboration), such as research and development (R&D) and production. In their self-conception, HR professionals perceive recruiting as being as important for organisational success as sales and marketing because products and services neither can be created nor sold without qualified employees. However, most chief executives and managers from other functional departments do not acknowledge the recruiting function's strategic relevance:

> Today [I had a discussion] with the [head of a] specialist department [I currently recruit for], which is by nature busy with doing daily business, and generating turnover, and producing things [. . .]. They are busy with a lot of things, which they deem more important than [their tasks in the recruiting process] (IP 01).

Thus, non-HR departments do not seem to be aware of recruitment's new role yet. As a consequence of this lack of awareness of recruitment's importance, the recruitment function often is not involved in strategic business planning, even if these plans concern the organisation's digital transformation. This impedes anticipatory actions in recruitment (e.g. early attraction of digital talent), which may contribute to a smoother implementation of plans. Also, the recruitment department often receives few financial and personnel resources from top management, which is why necessary actions, such as strategic planning of recruitment measures, sometimes are not taken. While recruiters lament that this complicates their task fulfilment, their descriptions show that it does not impede them from further adaptation of recruitment's role and mindset.

In contrast to their current practice, recruiters have begun to recruit from neglected groups. Some organisations have given up on the basic principle of searching for candidates who fit a specific vacant position because they realise that it becomes increasingly difficult to find suitable candidates, especially for IT-related vacancies. Instead, HR professionals turn towards hiring candidates with the 'right attitude' – regardless of whether they are a perfect fit in terms of qualifications and experience. In their mind, gaps in a candidate's qualifications can be reduced through internal training programmes after the candidate has signed the contract. Recruiters also have enlarged their geographical search area, moving beyond traditional regions towards more remote, economically underdeveloped regions, as well as to foreign countries. Moreover, uncommon forms of employment, such as freelance or temporary employment, have become acceptable, responding to the less long-term-oriented behaviour of digital talent and aiming to create a more flexible work force that can respond to environmental dynamics. Finally, a large organisation reported on how it strategically acquired a smaller organisation and start-ups predominantly to 'recruit' digital talent:

> We have just recruited 50 IT people at once by buying a software company. I can also perform staff recruitment in a way that I take the whole beehive (IP 02).

Recruiters also have discovered the necessity of networking. Some organisations now operationalise IT recruitment as building a pool of candidates who might be suited for a future, but not-yet-existent, vacancy. These organisations consequently use employer branding measures and events to acquire a large pool of interesting candidates and put effort into building loose, but nevertheless enduring, relationships with these candidates to hire them eventually in case of a fitting vacancy:

> Before, we used to reject applications as soon as the vacancy was filled. Now we rather try to inform the applicant that the vacancy is filled, but that we would like to keep his documents for future vacancies. In case the application is not totally off (laughing) (IP 20).

Besides networking with potential candidates, recruiters also build networks with groups of actors outside the organisation. For instance, some participants report that employer-branding executives cooperate with competitors to exchange opinions on measures and best practices for recruiting digital talent. Local authorities and other resident organisations (e.g. companies, chambers of commerce, education institutions) also have sought strategic partners when planning to improve and promote location or regional attractiveness jointly. Moreover, HR professionals seek expertise on certain target-group particularities from organisations that are not direct competitors, for example, by consulting providers of an online IT knowledge platform concerning preferences for digital talent, or else they engage in benchmarking initiatives:

> We hold benchmark exercises with our direct competitors on the labour market concerning [software] engineers [. . .], where we talk quite freely about what are the problems, what are the issues, where and how [should the problems be] approached (IP 15).

Thus, HR professionals increasingly seek external support and networking to respond to digital transformation. Apparently, significant changes manifest in the self-understanding of the recruitment function and in its role, leading to a different recruitment mindset. Recruitment acts as a coordinator between various interest groups, thereby facilitating recruitment. Thus, digital transformation shakes recruitment's current conceptual foundations.

Adapting the organisation. Beyond the direct effects on recruitment from digital transformation, our results surprisingly touch on another adaptation domain, as our respondents highlight recruitment's role in adapting their organisation to fit the digital workforce's requirements. Based on the knowledge acquired through interactions with the organisation's external environment (e.g. potential candidates, firm networks), recruiters attempt to develop the organisation towards a competitive level of employer attractiveness.

Recruiters perceive the candidates' attraction to an innovative and open organisational mindset and try to develop their organisation's mindset towards a more 'digital' one. Traditional structures and ways of thinking may lead to a limited openness to change and prevent the organisation from adapting to the evolving environment:

> We have many executives who have made the same job for years now and who are very entrenched concerning their actions and their thinking (IP 16).

In response to this observation, recruiters try to alter their organisations' traditional mindset by initiating internal cultural changes to enhance employer attractiveness. Specifically, our respondents described the need for change within the organisation towards a more 'digital mindset', as this would facilitate adaptation of the organisation into a highly dynamic, volatile and complex environment. People who are ascribed a 'digital mindset' frequently are characterised as being innovative, showing a creative drive and thinking entrepreneurially. Although several organisations have started processes to transform their culture and their employees' mindsets, these processes need a considerable amount of time and have not been finished yet. To push this cultural change from the recruiting side, recruiters make an effort to hire 'digitally minded' employees. However, this results in a 'chicken and egg' problem because candidates who embody these characteristics normally are less attracted to employers who do not (yet) possess a reputation for being innovative or open to change. Thus, recruiters have spotted issues concerning the organisational mindset that they deem necessary to change to survive the war for digital talent.

In a similar vein, the respondents highlighted the importance of implementing the theme of future orientation. An HR business partner from a retailing company explains how his company operationalises future orientation:

> We also have a [corporate] start-up unit, which is [. . .] staffed with colleagues from many operational areas, where we bring future viability [of our company] into the lab and try to position us in a way that we won't become a part of 'mega Amazon', but keep on running our own business (IP 11).

To bolster the development of a digital mindset within the organisation, recruiters encourage the organisation to change employees' working conditions, e.g. by paying attention to digital talent's preferences in workplace design and working time:

> [In one case] we chose [to hire] a lady who best fit the vacancy in terms of her professional background. The problem is: This lady lives in Berlin, is married, has two children. Well, you can imagine how hard it would be to persuade the whole family to move to [a city in the South of Germany]. In the past, we would have said: 'Well, then it's not working, if she can't come to [Southern Germany]'. [What we have done] today is to relocate the vacant position to Berlin. Of course, this bears consequences for her responsible manager because he doesn't have a direct contact person on site, but he can handle this. For the lady, this means that she needs to travel more often because she has to come to [Southern Germany from time to time], but it works (IP 14).

Furthermore, recruiters internally fight for the provision of state-of-the-art (IT) work equipment and modern office inventory. They propose moving office locations to attractive regions within Germany and try to establish or keep up a 'start-up feeling', which offers flat hierarchies and independence in decision-making. Moreover, our respondents feel the urge to build corporate start-up divisions that respond to digital talent's entrepreneurial mindset and attract digital talent by promoting business innovation in an increasingly dynamic setting.

HR professionals also try to provide flexibility in working hours to respond to individual requests to work part-time, and to set up varied and exciting training and

development paths. It is for reasons of authenticity and honesty why recruiters lean toward adaptation of internal conditions. However, recruiters perceive the risk of sending unauthentic and implausible recruitment messages by overpromising, as this would discourage potential candidates:

> And we have also told the new target groups, 'We are not there yet; we are just at the beginning.' And we have to make [our target groups] aware of this (IP 16).

Thus, recruiters recognise their new target group's preferences and strive to adapt the organisation so that it responds to digital talent's needs. Thereby, recruiters push the whole organisation to change.

To sum up, recruiters have discovered the need to realign recruitment tasks toward the organisation's strategic orientation by shifting recruitment efforts towards the digital target group to acquire the human capital needed to implement digitalisation, and by addressing the need to change the organisational mindset into a 'digital' one.

As a consequence of altering working conditions and the organisational mindset, recruitment alters the organisation's professional image, as perceived from the outside. According to our respondents, the composition of a firm's workforce reflects on potential candidates' beliefs about which professions a firm is currently looking to hire for and, thus, on the firm's attractiveness in the labour market. As an HR manager from the automotive sector put it, associations with his firm were rather non-digital before the firm began to demonstrate its digital skills by incorporating digital technologies into its product portfolio:

> [Potential candidates said:] 'You produce cars. You emboss. You do mechanical pressing. Noisy. Oil.' Classical cognitive associations showed up there (IP 22).

We found that some recruiters view internal training as a surrogate and supplemental for recruitment, so they used the internal labour market to counter shortages in digital talent hired externally. Combined with hiring digital talent, this alters an organisation's 'skill set', which, in turn, alters candidates' beliefs concerning the professions that the organisation is looking to hire for, thereby changing the organisation's professional image.

Comparing pre-digital with born-digital organisations

So far, the findings refer to the responses of interviewees from pre-digital organisations. To analyse to what extent the challenges experienced by pre-digital organisations are unique, this section contrasts interview partners' responses from pre-digital organisations to those of interviewees from born-digital organisations. This comparison yields some similarities, but also some remarkable differences. Regarding similarities, we found that both pre- and born-digital organisations have experienced drastic shortages in digital talent, which have increased in intensity over the past 5–10 years as employers 'struggle with hiring digital talent' (second-order theme 1). This struggle has triggered changes among both types of organisations. However, both types of organisations differ regarding the changes' intensity: Whereas pre-digital organisations implemented rather radical changes
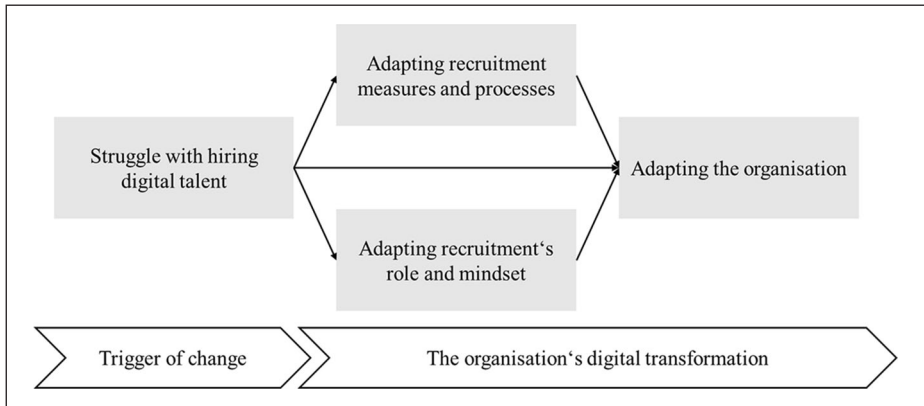
Figure 2. Summary of findings.

as a response to the struggle, born-digital organisations responded to this struggle with rather minor modifications. For instance, they engage partially in 'adapting recruitment measures and processes' (second-order theme 2), for example, by experimenting with new channels and target-group communication content. However, we found no evidence of any attempts to increase their familiarity as employers or any pooling of internal recruitment competencies for digital talent. Also, the interviewees from born-digital organisations did not mention any efforts to 'adapt recruitment's role and mindset' (second-order theme 3) or to 'adapt the whole organisation' (second-order theme 4).

To sum up, pre-digital and born-digital organisations encounter similar challenges, but respond differently. Born-digital organisations struggle with recruiting digital talent, who become even more scarce as a result of a fixed supply and increasing demand. Thus, they aim to optimise their communication to become more attractive to lure scarce digital talent (Oehlhorn et al., 2019). Pre-digital organisations experience more significant challenges: They need to recruit scarce digital talent whom they lack experience with and who have different demands than their prior recruitment target groups. Thus, the changes required for pre-digital firms to attract digital talent are more radical than for born-digital organisations.

Discussion

Seen from the 'necessary 30,000-ft. View' (Gioia et al., 2013: 21), our results provide insights into how recruiters seek to attract digital talent to secure companies' long-term success and survival. Our findings, which are based on data from mainly large and pre-digital companies, show that digitalisation creates a demand for digital talent for traditional, that is, pre-digital, companies in many industries, as they need to transform their products, services, and processes. However, attracting digital talent creates some severe challenges for recruiters from pre-digital organisations. In examining their struggles in recruiting digital talent, we found that recruiters have become aware of three major issues. First, they have realised that they need to adapt recruitment measures and

processes to approach digital talent effectively. Second, recruiters have identified the need for a change in recruiters' role and mindset. Digital transformation, as one type of severe environmental dynamism, challenges recruiters' tasks and self-understanding, thereby indicating that recruiters act as mediators who connect various actors, such as potential candidates, hiring departments or external partners. Third, recruiters have realised that to attract digital talent, it is insufficient for the company to merely digitalise their products, services or processes. Instead, the company itself needs to transform and adopt a digital identity and culture (Wessel et al., forthcoming). The adaptation of recruitment measures and processes, as well as of recruiting's role and mindset, supports the transformation of the whole organisation, with the goal of attracting and retaining digital talent. Figure 2 illustrates our findings.

A surprising finding from our study was that several participants complained that other functional departments only partially recognised recruiting's strategic relevance in the transition from a pre-digital to a digital organisation. The interviewees noted that non-HR functions lack awareness of recruiting's important role in the organisation's digital transformation. Non-HR departments do not recognise the severity of the changes that digital transformation imposes on recruiting and instead lament recruiters' lack of success in hiring digital talent.

We discussed these findings against the backdrop of current research on HRM and digital transformation, thereby deriving implications for research. From these implications, we identified avenues for future research.

Implications for research

This study provides two main implications for research. First, it extends our knowledge on recruiting's role. Prior studies have indicated that recruiters' primary task is to identify and attract potential employees (Barber, 1998). We discovered that during digital transformations, recruiting takes on two additional roles: acting as both a 'sensory organ' for the organisation and as a 'mediator' between different groups. Concerning its role as a 'sensory organ', recruiting transfers knowledge about environmental changes into the organisation and acts as a facilitator of change. Research in the fields of innovation and organisational learning have described this mechanism as *absorptive capacity*, which is defined as a 'firm's ability to identify, acquire and exploit external knowledge' for the purpose of internal innovation (Bogers and Lhuillery, 2011: 583; Cohen and Levinthal, 1990). The construct is researched mostly in the context of knowledge acquisition for R&D purposes, but also has been applied to other organisational functions, such as manufacturing (Tu et al., 2006) and marketing (Bogers and Lhuillery, 2011). Our results suggest that by interacting with the firm's external environment, for example, with potential candidates or with competitors in the labour market, recruiters acquire valuable knowledge about high-demand – for example, digital – KSAs or changes in candidates' attitudes and values. They use this information to initiate and push change in the company's culture and identity (Wessel et al., 2020) to keep it competitive in terms of attractiveness to potential employees.

However, our study provides only limited primary empirical evidence of the absorptive capacity of the recruitment function. To get a clear picture of the role and potential of recruitment's absorptive capacity and to strengthen the recruitment function's

strategic value, we recommend future research on recruitment's role in a firm's ability to acquire and exploit external knowledge for its internal innovation process. As our findings are influenced by the presence of severe environmental dynamism in the form of digital transformation, future research also might question whether and how recruitment's importance as a receptor of external knowledge changes with environmental conditions. Research on HRM's role in acquiring and communicating knowledge may lend further support to the notion that HRM is crucial for a firm's long-term competitive advantage by facilitating organisational change and innovation.

Recruitment's second role during the organisation's digital transformation is to be a mediator that connects different groups. Interaction with the organisation's external environment (e.g. with job applicants) has been a crucial part of recruiters' daily work so far, and recruiter behaviour towards (potential) candidates was found to be a crucial determinant of recruitment success (Breaugh, 2013; Chapman et al., 2005). In the current conceptualisation of recruitment, recruiter behaviour mainly is related to attracting future employees and focusses on questions such as how to reach out to digital talent and how to attract these individuals to the company. However, this suggests a solely dyadic interaction between candidate and recruiter, which underestimates recruiters' mediating role. We found that recruiters spend a considerable amount of time and effort engaging internal actors in recruitment activities, for example, matching job candidates with departments that have vacancies, as it was discovered that digitally talented individuals decide based on a task's professional content. Due to recruiters' lack of profession-related knowledge (e.g. concerning digital technologies), they must delegate the task of convincing candidates to work with the firm to the specialised departments with vacancies. Consequently, specialised departments have become an important player in the recruitment process – not just in the selection of candidates – whereas recruiters instead seek to initiate first contact with candidates, then direct them to departments with vacancies.

Second, this study extends the HR literature by analysing digital transformation's impact on HR-related activities on a strategic level. Prior HR research mainly has discussed how the use of digital technologies affects HR-related activities, such as recruitment (e.g. Holm, 2012; Sylva and Mol, 2009) and selection (e.g. Strohmeier, 2007). We extend this literature by highlighting recruitment's key role in one of the main challenges that organisations must master to adapt to the changing environment: renewal of their human resource base. Digital transformation has forced many pre-digital companies to alter and redefine their business models, for example, by digitalising their business processes or introducing new products or services that build on digital technologies (Karimi and Walter, 2015). Because many of their current employees lack necessary IT-related competencies (Daheim et al., 2017), organisations report the need to hire digital talent to 'leverage digital technologies to uncover new paths for value creation'(Vial, 2019: 8). Thus, because digital talent is crucial to digital transformation of pre-digital companies, renewing the human resource base has the potential to be important to companies' long-term survival and success.

The task of renewing the company's human resource base raises questions regarding recruitment-related dynamic capabilities. *Dynamic capabilities* refer to 'the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments' (Teece et al., 1997: 516). So far, researchers have identified

function-specific dynamic capabilities in research and development (Dutta et al., 2005) and in marketing (Barrales-Molina et al., 2014), but not yet in the HR context. As recruitment is one of the first departments at a company that encounters environmental changes (e.g. supplying human capital), it needs to develop capabilities that allow for proactively perceiving and processing changes, as well as adapting behaviours accordingly. We suggest that the highly dynamic digitalisation process requires HR departments to build recruitment-specific dynamic capabilities that enable an organisation to address the challenges imposed by digital transformation in labour markets.

Considering that recruitment-related dynamic capabilities were not this study's focus, we cannot provide any detailed insights. However, given both the theoretical and practical relevance, we recommend future research that investigates recruitment-related dynamic capabilities in more detail. For instance, studies may analyse how to assess the existence of recruitment-specific dynamic capabilities, which factors influence their creation and how they interact with recruitment-relevant resources, such as human capital. Also, studies may focus on the effect of recruitment-specific dynamic capabilities on recruitment success and firm performance to provide further insights into recruitment's strategic importance.

Limitations and conclusion

Our study's findings are based on 26 interviews with recruiters who work in 22 pre-digital and born-digital German organisations of different sizes and from different industries. Although this study design has several strengths, such as insights from multiple organisations and industries, it also has some limitations that need to be acknowledged: First, we collected our data at one particular point in time, and we relied on retrospective accounts of how recruiters deal with digital transformation. Thus, our findings could be biased by retrospective sensemaking. A longitudinal perspective would add considerable value to this subject of investigation. Second, our sample of organisations mainly contained traditional, that is, pre-digital, organisations; thus, the results may be biased in the direction of specific challenges among pre-digital companies undergoing digital transformation. For example, in pre-digital organisations, the IT function has grown structurally separate from other business functions because IT evolved after the organisation's establishment. This impedes IT knowledge, making it difficult for an IT mindset to be absorbed into the organisational culture (Haffke et al., 2017). Before being able to incorporate digital transformation, pre-digital organisations must overcome this barrier, whereas born-digital organisations may face less cultural resistance. Thus, most recruiters whom we interviewed may have experienced greater challenges than their counterparts at born-digital companies, which is demonstrated in our comparison of the challenges that recruiters experience in pre-digital and born-digital organisations. Third, we chose to examine the broad field of recruitment and digital transformation, which, however, impedes providing results that dig into details. Therefore, our data reveal that the renewal of the human resource base may be facilitated by recruitment, but leaves the question of how this process takes place unanswered. Future research might address this shortcoming and provide more detailed insights into recruitment- or HRM-related dynamic capabilities that contribute to the

renewal of the human resource base. Finally, although our participants worked for organisations in very different industries, almost all organisations are quite large regarding firm size. Thus, the results may be biased by the effects from firm size on innovation performance or knowledge creation, such as during the adaptation of recruitment measures and processes, as large firms demonstrate higher internal knowledge-creation capabilities compared with smaller firms (Forés and Camisón, 2016). This raises the question of to what extent our findings can be generalised to small- and medium-size enterprises (SMEs), which may be affected differently by digital transformation and, therefore, may have a very different demand for digital talent. Thus, we recommend future research that examines differences between SMEs and larger organisations.

To sum up, we find that recruitment plays an important role in accommodating the technologies that digital transformation requires, as many organisations need to hire employees with IT-related KSAs. This study provides first insights into recruitment's roles during digital transformation as a 'sensory organ' enhancing a firm's absorptive capacity and as a 'mediator' between various groups, along with its role in renewing an organisation's human resource base. We hope that this study facilitates discussions about digital transformation's effects on recruitment's role in implementing organisational change, as well as recruiting activities to design and manage the process successfully.

Funding

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