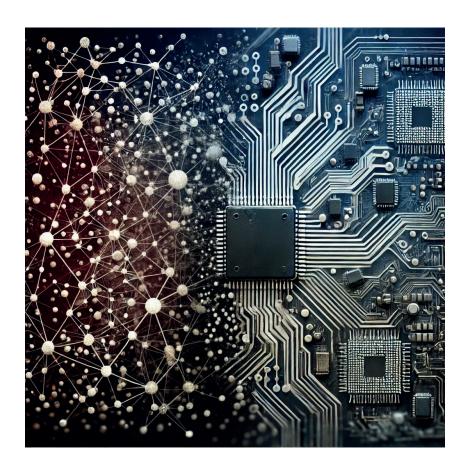
# Matti Laukkarinen

# From Networking to Matchmaking

Labor Matching and Proactive Candidate Search in the Age of Algorithmic Curation





#### **JYU DISSERTATIONS 838**

### Matti Laukkarinen

# From Networking to Matchmaking

# Labor Matching and Proactive Candidate Search in the Age of Algorithmic Curation

Esitetään Jyväskylän yliopiston humanistis-yhteiskuntatieteellisen tiedekunnan suostumuksella julkisesti tarkastettavaksi yliopiston vanhassa juhlasalissa S212 marraskuun 22. päivänä 2024 kello 12.

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#### **ABSTRACT**

Laukkarinen, Matti

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Social ties have long been recognized as important conduits of professionally relevant information. The proliferation of digital communication technologies has introduced new forms of connectivity, providing job seekers with novel ways to enhance their visibility to employers and simultaneously offering organizations greater opportunities to actively search for potential candidates. This dissertation examines how interpersonal and social media ties differ in their ability to convey professionally relevant information between supply and demand of labor, simultaneously discussing how algorithmic curation mechanisms are reshaping the role of social ties in labor matching. The empirical focus is on employers' proactive search of potential job candidates through interpersonal ties and social media platforms.

The findings indicate that interpersonal ties surpass social media ties in their ability to convey particularly rich and mutually beneficial information. While social media ties facilitate employers' wider access to information about potential job candidates, social media platforms algorithmic curation mechanisms increasingly steer employers' search efforts by emphasizing specific platform behavior and singular data points from job candidates' online presence. In this dynamic, social media ties mainly serve to enhance job seekers' algorithmically mediated visibility and expand recruiters' access to potential candidates rather than convey rich and nuanced information that tends to flow through interpersonal ties.

This dissertation contributes to the literature in several ways. First, it elaborates how interpersonal ties and social media ties differ in their ability to convey professionally relevant information. Second, it explains how digital transformation facilitates employers' transition toward proactive recruitment approaches while simultaneously highlighting the emerging importance of worker visibility in the contemporary platform-mediated labor market. Third, the findings contribute to the discussion on platform power by outlining how, in the platform-mediated labor market, control over access to positions shifts from network mechanisms to platform providers and their algorithmic curation mechanisms.

Keywords: Algorithmic decision-making, digital transformation, labor matching, platform power, social networks

### TIIVISTELMÄ (ABSTRACT IN FINNISH)

Laukkarinen, Matti

Verkostoitumisesta kohdentamiseen: Työn kohtaanto ja proaktiivinen ehdokas-

haku algoritmisen kuratoinnin aikakaudella

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Digitaaliset viestintäteknologiat tarjoavat työnantajille perinteisten sosiaalisten verkostojen rinnalle uusia tapoja tavoittaa potentiaalisia työntekijöitä. Tämä väitöskirjatutkimus tarkastelee, millä tavoilla sosiaaliset siteet kontribuoivat työnantajien harjoittamaan, proaktiiviseen työnhakijoiden etsintään, ja miten henkilökohtaiset siteet ja sosiaalisen median siteet eroavat toisistaan ammatillisesti relevantin tiedon välittämisessä. Lisäksi tutkimus selvittää, kuinka algoritmiset kuratointijärjestelmät muovaavat sosiaalisen median siteiden roolia työnhaussa ja rekrytoinnissa. Tutkimuskysymyksiä tarkastellaan kolmen osatutkimuksen kautta.

Tulokset osoittavat, että henkilökohtaiset siteet tarjoavat rekrytoinnin näkökulmasta erityisen rikasta tietoa potentiaalisista työnhakijoista. Sosiaalisen median alustoilla, algoritmiset kuratointijärjestelmät ohjaavat työnhakijoiden näkyvyyttä korostamalla tietyntyyppistä informaatiota työnhakijoiden näkyvyyttä ja auttavat työnantajia tavoittamaan potentiaalisia hakijoita tehokkaammin, ne eivät tyypillisesti välitä henkilökohtaisten siteiden kautta tavoitettavaa yksikohtaista tietoa. Tulokset korostavat työvoiman näkyvyyden keskeistä roolia nykypäivän työmarkkinoilla ja osoittavat, kuinka uudet teknologiat edistävät työnantajaorganisaatioiden siirtymää kohti proaktiivisia rekrytointikäytäntöjä. Lisäksi tutkimus tuo ilmi, kuinka alustavälitteisillä työmarkkinoilla kohtaanto määräytyy perinteisten verkostomekanismien rinnalla enenevässä määrin alustojen algoritmisten kuratointijärjestelmien ohjaamana.

Keywords: Algoritminen päätöksenteko, digitalisaatio, rekrytointi, sosiaaliset verkostot, työmarkkinat

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#### FOREWORD AND ACKNOWLEDGEMENTS

"One day I will find the right words, and they will be simple."

- Jack Kerouac, novelist and poet

Life seems to unfold in unexpected ways. Looking back on the journey that has led me to write the foreword and acknowledgments on my own dissertation feels surreal—bonkers, to be more precise. The road that shapes our ideas, actions, and thoughts, which we often imagine as our own making, is ladened with influence from various occurrences and individuals. While it is impossible to fully acknowledge every significant moment and person that has shaped my thinking along the way, credit should always be given where credit is due. I try my best to give it to those who deserve it.

I thank my supervisor Petri Ruuskanen for your contributions as a supervisor and especially as a general mentor in academic working life. I remember very clearly when nearing the end of my master studies, I sent an email to you regarding my ambitions to proceed to doctoral studies. You responded by hiring me for your project, which at that time provided a much-needed boost to my academic confidence, fueling a belief that I might truly have a chance in the academic world. Along the way, you have provided experienced insights into my dissertation and how to build a sustainable career in academia. I am deeply grateful for all the guidance you have provided.

I express my gratitude to my opponent and second pre-examiner Pasi Pyöriä from the University of Tampere for the excellent feedback and comments on the dissertation. I also thank my second pre-examiner Minna Ruckenstein from the University of Helsinki for your detailed and well-informed comments and feedback. I feel privileged to receive insights from such experienced scholars and I truly appreciate the work and effort you have put into my dissertation. Your contributions have not gone to waste.

I thank the entire Department of Social Sciences and Philosophy and everyone I've had the pleasure of working with. I am grateful to Pertti Jokivuori for your support as my second supervisor. I am also sincerely grateful to Tapio Litmanen for your valuable feedback and kind-hearted guidance throughout my PhD journey. A special thanks goes to Tapio, as without one specific email from you, I wouldn't have connected with the people I'm working with today. Funny how one forwarded email can have such significant outcomes, if you remember to keep your eyes open.

I was fortunate to participate in several seminar groups throughout my dissertation process. I extend my heartfelt thanks to everyone for their comments and peer support in the doctoral seminar group led by Markku Lonkila, the Digital Life seminar group led by Terhi-Anna Wilska and Sakari Taipale, and the Ewide seminar group led by Ward van Zoonen. It's fascinating to reflect on how small comments and remarks made during these seminars made me think and had a significant impact on the final outcome.

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During my time in academia, I have been fortunate to cross paths with certain individuals with whom academic acquittance has developed into a friendship. Thank you, Jesse and Suvi, for your peer support, both regarding life at academia, and other matters of life as well. Outside of academic circles, I am grateful to fellow PhD student Neea for your peer support.

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I have to pay homage to my brothers-in-arms at Jyväskylän Fight Club. While the years spent on Erämiehenkatu may not have shaped my thinking on algorithms, they undoubtedly have taught me the value of camaraderie and the importance of showing up. It's ironic how the looming threat of being choked out by a friend can offer the most serene and quiet headspace for a restless mind. I feel truly at home when I'm surrounded by fellow restless souls. Nothing but respect. Nothing but Oss. 押忍の精神.

From my years in civil engineering, I thank Jouni. Our reflective discussions, especially during that time period, played a significant role in motivating me to pursue a career better aligned with my ambitions and strengths. I also owe a special thanks to one particular employer from my civil engineering days —our incompatibility and heated exchanges ultimately gave me the push I needed to take a leap of faith and pursue a career in social sciences. At times, challenges in the moment can unexpectedly turn out to be blessings in disguise.

I thank my closest group of friends — you know who I am referring to. Throughout the years, each and every one of you has supported, motivated, and inspired me in your own unique ways. You are my most important peer group and our years together have profoundly shaped the person I am today. A special shout-out goes to one particular person at our annual Kääkkö cottage reunion in 2015. After enduring one of my (typical) long-winded know-it-all rants about some minor lore detail in a video game, you casually wondered what I might accomplish if I directed my weird obsessions with details into "something useful." This thought has stayed with me ever since and continues to guide my shenanigans toward more "useful" endeavors. Thank you, Sissi, for all your support throughout the years. As autonomy is a prominent theme in this dissertation, special thanks to our insightful discussions, and especially to your practical example on why and how to live a self-determined life. It has surely shaped my thinking and the person I am today.

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It is quite astounding to look back and realize how seemingly small moments and scattered discussions here and there can later cumulate into something meaningful — A *network* of influences, if you will. Never underestimate the impact you can have on someone's life.

Matti Laukkarinen November 2024 Halkokumpu, Finland

### **FIGURES**

Figure 1.	Proactive candidate search in the recruitment process	24
Figure 2.	Algorithmic-assisted proactive candidate search	58
Figure 3.	The complementary multiple methods research design	67
Figure 4.	Interpersonal and social media ties in proactive candidate	
	search	85
Figure 5.	Platform-mediated labor matching.	87
Figure 6.	Network-mediated and platform-mediated labor matching	90
TABLES		
Table 1.	The dissertation's articles and their role in answering the	
	research questions	19
Table 2.	The summary of articles	74

### **CONTENTS**

ABSTRACT
TIIVISTELMÄ (ABSTRACT IN FINNISH)
FOREWORD AND ACKNOWLEDGEMENTS
FIGURES AND TABLES
CONTENTS

1	INT	RODUCTION: DIGITAL TRANSFORMATION AND THE SHIFTI	٧G
	LAN	NDSCAPE OF LABOR MATCHING	13
	1.1	Research Aims, Analytical Perspectives and Research Questions	15
	1.2	The Research Articles and Their Roles	18
	1.3		
		·	
2	COI	NCEPTUALIZING THE TWO-SIDED MATCHING PROCESS OF	
	LAF	3OR	22
	2.1	The Interplay Between Job Search and Recruitment	23
	2.2	Declaring the "War on Talent": Employers Transition Toward	
		Proactive Recruitment Approaches	25
	2.3	Formal and Informal Mediums of Labor	27
		2.3.1 Moral and Legal Considerations for Proactive Recruitment	
		Approaches	
	2.4	The Emerging Importance of Visibility in Labor Matching	31
3	UN	VEILING DIFFERENCES: LABOR MATCHING IN INTERPERSON	IAL
		D SOCIAL MEDIA NETWORKS	
	3.1		
		Social Media Platforms	
		3.1.1 The Amplification of Behavioral Visibility	
		3.1.2 Social Media and the Collapse of Social Contexts	
	3.2	<del>_</del>	
	3.3		
	3.4	<del>-</del>	
		3.4.1 Social Media Affordances	
		3.4.2 Professional Impression Management	48
4	FRC	OM NETWORKING TOWARDS MATCHMAKING: THE	
		DLIFERATION OF ALGORITHMIC CURATION MECHANISMS	50
		Who Sees and What? - Algorithmic Curation on Social Media	
		Platforms	
		4.1.1 Platform Power and the Question of Transparency	
	4.2	Searchability: The Root Affordance of Platform-Mediated Labor	
	-	Matching	54
		4.2.1 The Dark Side of "Optimized Recommendations"	

	4.3	Algorithmic Recruiting Systems and Human Autonomy	61
		4.3.1 Autonomy and Algorithmic Opacity	64
5	DAT	TA AND METHODS	65
	5.1	Rationale for the Multiple Methods Research Design	
	5.2	Philosophical and Methodological Considerations	
	5.3	Research Data and Methods	
		5.3.1 Qualitative Studies	69
		5.3.2 Quantitative Survey Analysis	71
	5.4	Ethics and Quality Criteria	
6	SUM	IMARY OF FINDINGS	74
	6.1	Article 1: Social Contacts and Informal Knowledge in Recruiting:	
		A Case Study of Construction Industry SMEs	76
	6.2	Article 2: Social Media as a Place to See and Be Seen: Exploring	
		Factors Affecting Job Attainment via Social Media	77
	6.3	Article 3: What if I Disagree with the Algorithm? Examining	
		Recruiters' Autonomy-enhancing Practices on Professional Social	
		Media Platforms	79
7	DISC	CUSSION AND CONCLUSIONS	82
	7.1	Theoretical Contributions	82
	7.2	RQ1: In What Ways Do Interpersonal Ties and Social Media Ties Contribute to Labor Matching Through Proactive Candidate	
		Search?	83
	7.3	RQ2: How do Algorithmic Curation Mechanisms on Social Media Platforms Intertwine, Reshape, and Potentially Diminish Proactive	
		Candidate Search Through Social Ties?	86
	7.4	RQ3: What Strategic and Ethical Implications Arise from Employer Use of Interpersonal Ties and Social Media Platforms in Proactive	s'
		Candidate Search?	88
	7.5	Emergent Technologies Make New Kinds of Markets Possible:	00
	7.0	Implications for Practice and Policy	91
	7.6	Limitations and Directions for Future Research	
SUM	1MAF	RY IN FINNISH	94
REF	EREN	ICES	96
ORI	GINA	AL PAPERS	

### LIST OF ORIGINAL PUBLICATIONS

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- III. Laukkarinen, M. (2024). What if I disagree with the algorithm? Examining recruiters' autonomy-enhancing practices on professional social media platforms. Submitted to *Information, Communication and Society.*

## 1 INTRODUCTION: DIGITAL TRANSFORMATION AND THE SHIFTING LANDSCAPE OF LABOR MATCHING

Media / 'mi:dıə/

A plural form of medium / 'miːdɪəm/. The word *medium* — from the Latin adjective *medius*, "middle" — has several meanings that all center on the idea of being in between. From the air that carries the broadcast signal, to the person who transmits messages from the dead to the measurement of the "doneness" of your steak, *medium* means something that lies between two other points, people, or levels.<sup>1</sup>

Emergent technologies reshape labor matching through social ties. From the days of Mark Granovetter's seminal work (Granovetter, 1973, 1995), the pivotal role of social ties in facilitating the matching between the supply and demand of labor has been well documented and largely recognized. Prior to the era of computermediated communication, people's actions and behaviors were made known to others through word-of-mouth social interactions (Thompson, 2005). Job seekers could receive insights about prospective employers through everyday social interaction and actively seek information from friends and acquaintances about available positions (Lin, 1999; Montgomery, 1991). On the employer side, those in need of talent could leverage the information flow on social networks to acquire insights about potential job candidates within their network of employees and associates (Bills et al., 2017; Hoye & Lievens, 2009; Saloner, 1985). In face-to-face networks, a job seeker's visibility to potential employers is mediated through interpersonal ties, and access to professionally relevant information depends on factors such as the quantity and quality of social ties, as well as the individual's strategic position within the network (Burt, 2000; Granovetter, 2005; Lin, 2017).

Enter the age of digital connectivity. The emergence of social media technologies produced a new form of connectivity, digital social media ties, which were looser and more accessible to cultivate than interpersonal face-to-

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<sup>&</sup>lt;sup>1</sup> Vocabulary.com. (n.d.). Media. In Vocabulary.com Dictionary. Retrieved January 26, 2024, from https://www.vocabulary.com/dictionary/media

face ties (boyd & Ellison, 2007; Ellison & Vitak, 2015; Thompson, 2020). As people began to willingly disclose their actions and behaviors to a broader and more ambiguous audience (Davis & Jurgenson, 2014; Papacharissi, 2011), their behavioral visibility to others consequently increased (Leonardi & Treem, 2020; Treem et al., 2020). On personally oriented platforms, such as Facebook and Instagram, people share details about their personal lives, while on professionally oriented platforms, such as LinkedIn or XING, people willingly share pertinent details about their professional backgrounds in the hopes of securing job leads and offers from acquaintances and potential employers (Behrend et al., 2023; Van Dijck, 2013). The transition toward digital connectivity changed how individuals' actions and behaviors are exposed to others, offering job seekers more opportunities to increase their visibility to potential employers. In turn, it also enables employers to proactively identify job candidates on a larger scale (Koivunen, 2024; Kroll et al., 2021; McDonald et al., 2019).

Enter the age of algorithmic curation systems. In the early days of social media platforms, the dissemination of information and access to content largely depended on relational ties (Kane et al., 2014), mirroring the patterns of information flow present in interpersonal networks (Dunbar et al., 2015). In practice, users' visibility to others was primarily mediated by the composition of their digital networks. However, as more diverse sources of content became available and the ever-increasing amount of data continued to accumulate, the difficulty of evaluating and selecting relevant information from the irrelevant increased (Schmitt et al., 2018; Stohl et al., 2016). Platform providers developed new methods for curating content and managing information flows. Consequently, the responsibility of deciding who sees what moved from relational ties more to algorithmic decision-making processes (Bandy & Diakopoulos, 2021; Cristianini et al., 2021; Dujeancourt & Garz, 2023). These algorithmic curation mechanisms tend to favor popular and engaging content, often leading to polarized outcomes in terms of user and content visibility (Olshannikova et al., 2022; Su et al., 2016). Algorithmic search and recommendation systems developed in parallel, providing cost-efficient opportunities for organizations to identify and target specific individuals and demographics for various revenue-generating purposes (Khalid et al., 2022; Lu et al., 2015). In the labor-matching context, these systems enable employer organizations to target their job advertisements to specific demographics and to search and identify potential job candidates at relatively low cost (Alexander et al., 2024; Borisyuk et al., 2016; Garg et al., 2022; Geyik et al., 2018; Koivunen, 2024).

It is important to note that employers continue to utilize interpersonal networks to gather information about potential employees, and relational ties still significantly influence users' access to information on social media platforms. Nevertheless, it becomes evident that in the digital sphere, the role of social ties as conduits for information has evolved, becoming more nuanced and intertwined with complex and opaque socio-technical mechanisms (Burrell, 2016; Langer & König, 2023). While pre-existing network structures have always produced uneven opportunities in terms of professional outcomes (Ahmad, 2015;

Fernandez & Sosa, 2005; Kracke & Klug, 2021), scholars argue that the algorithmic logic behind digital labor market mediums has given rise to new kinds of frictions, highlighting their potential to intensify disparities in labor market opportunities (Martindale & Lehdonvirta; 2023; McDonald et al., 2019; Milano et al., 2021; Sharone, 2017). As noted by Selbst et al. (2019), when technology is inserted into existing social systems, it can have both intended and unintended consequences.

# 1.1 Research Aims, Analytical Perspectives and Research Questions

In this dissertation, I examine how interpersonal social ties and digital social media ties differ in their ability to convey professionally relevant information between supply and demand of labor. Additionally, I explicate how the development of social media technologies and the transition toward algorithmic curation systems reshapes employers' access to the labor force and job seekers' access to labor market opportunities through social ties. To effectively compare and contrast, I conceptualize interpersonal and social media networks as distinct mediums, each embodying unique characteristics that affect the flow of information through these mediums (King et al., 2005; Thompson, 2005, 2020). I do not view social media platforms merely as neutral facilitators of social connectivity but as mediums that actively shape the dynamics of social interaction between individuals (Gillespie, 2010; Milano et al., 2021). Through algorithmic curation, the platform actively mediates individuals' behavioral visibility by giving preference to certain types of behavior while diminishing the visibility of others (Bucher, 2012; Gillespie, 2014; Helberger et al., 2018). This raises crucial questions when comparing network-mediated labor matching to platform-mediated labor matching: How does the information flow through interpersonal ties differ from information flow through social media ties? What are the advantages and limitations of candidate information obtained through interpersonal ties when compared to information obtained through social media ties? What entities or mechanisms have the power to govern candidate visibility? Who gains an advantage in the platform-mediated labor market compared to the network-mediated labor market?

My approach toward social networks and digital platforms is socio-material in nature, drawing inspiration from social network theory and actor-network theory (ANT).<sup>2</sup> The traditional social network approach typically concentrates exclusively on human actors, treating non-human actors as passive and instrumental tools humans use to achieve their objectives. On the other hand, ANT approaches technologies as active contributors to networks, influencing the outcomes and interactions that emerge from these networks (Latour, 2007; Law,

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<sup>&</sup>lt;sup>2</sup> For a historical overview of social network theory, see Borgatti et al. (2009) and Freeman (2004).

1992). I concur with scholars who emphasize the impact of technology on social interaction (see Selbst et al., 2019). For example, Milano et al. (2021) argue that algorithmic systems exert a notable influence in contemporary online environments by shaping user preferences, social interactions, and the exchange of information within these systems. While digital platforms comprise a multitude of elements, such as various interface design features, user data points, and computational procedures, I approach digital platforms in a Latourian manner as so-called consolidated networks. Within consolidated networks, heterogeneous sub-actors are networked and intertwined in such a way that the comprised network can be justifiably regarded as a singular actor (Müller, 2015). Hence, while recognizing the existence of diverse sub-actors, I also discuss digital platforms as a unified medium, facilitating interactions between employers and potential job candidates. This perspective enables me to treat digital platforms as a cohesive entity and a singular unit of study.

As the study delves into the larger societal dimensions of platformmediated labor matching, the question of power and agency becomes apparent. The fundamental premise of actor-network theory suggests that all actors within a network—be they human or non-human—are regarded as relatively equal in their capacity to act and influence the network (Mwenya & Brown, 2017). This dismissal of social order has provoked criticism regarding its applicability for critically evaluating power dynamics (Kirsch & Mitchell, 2004; Whittle & Spicer, 2008). In this study, I align with the critique and acknowledge that the lack of prioritization between human and non-human actors poses challenges when analyzing power asymmetries in the context of digital platforms. In the digital sphere, questions of power and agency grow intricate, especially given that the non-human actors within digital platforms are originally products of conscious human action. For instance, the infrastructural choices underpinning user interfaces and algorithmic decision-making systems are crafted by various frontand back-end developers, making them byproducts of human action motivated by various incentives, be it monetary or other (Burrell, 2016). Consequently, the boundary between subjects and objects becomes increasingly blurred and complex, making it difficult to distinguish where deliberate human decisions intersect with those made by machine learning algorithms.

It should be noted that the widespread adoption of machine learning technologies has lent credence to actor-network theory's perspective on the agency of non-human actors. This is exemplified by the contemporary metaphor of "black box" algorithms, which portrays machine learning algorithms as functioning without direct human oversight, seemingly operating in an almost autonomous manner (Ajunwa, 2020; Pasquale, 2015). The metaphor holds explanatory value; for example, when employers utilize social media platforms to search for job candidates, the algorithmic pre-curation mechanisms operate without the explicit oversight of the end-users (Hunkenschroer & Luetge, 2022;

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<sup>&</sup>lt;sup>3</sup> Latour diverges from the contemporary depiction by using the "black box" metaphor to illustrate how scientific or technological systems are taken for granted or accepted as given within society (Latour, 1994).

Tsamados et al., 2022). While these notions hold value, particularly in highlighting issues related to transparency and accountability, it is important to recognize that algorithmic decision-making systems are ultimately products of intentional human design and effort. In this regard, algorithms can be seen as mirrors of society, as they are often trained to mimic human behavior and consequently amplify existing societal dynamics (Shin & Park, 2019; Xiang, 2024). From this perspective, actor-network theory's assumption of relative power symmetry between human and non-human actors appears overly simplistic and inadequate for evaluating power dynamics on digital platforms (Mwenya & Brown, 2017). However, ANT's assertion that technical non-human entities influence human behavior and social interaction provides a useful framework for studying socio-technical networks and micro-level dynamics between users and platform infrastructural factors. I agree with Law's (2008, p. 142) characterization that describes actor-network theory more as an approach rather than a theory, emphasizing its capacity to offer "sensibility" into the complex interplay of social and material aspects of the world.<sup>4</sup>

While I situate my discussion within the broader context of labor matching, the study's empirical focus is on employers' talent attraction practices, particularly the proactive search for potential candidates (Koivunen, 2024; Kroll et al., 2021; McDonald et al., 2019). Much of the current research on employers' use of social media platforms for labor-matching purposes has been done under the umbrella definition of cybervetting. I argue that this term presents its own set of problems due to its broad application across various instances where employers use the Internet and social media platforms to screen job candidates and make hiring decisions (see Berkelaar & Harrison, 2016; Wilcox et al., 2022). The broad scope of the term fails to acknowledge that employers utilize social media platforms in various phases of recruitment, such as identifying and attracting candidates in the early stages of recruitment as well as screening candidates who have already progressed in the recruitment process (Kroll et al., 2021; Roulin & Levashina, 2019). The stage of acquiring information is not irrelevant, as highlighted by Roth et al. (2016, p. 277), who note that pre-interview information acquired through social media platforms can influence the outcomes of the whole recruitment process, as it has the potential to shape interviewers' expectations of an applicant, consequently affecting the concurrent evaluation process. Considering the limited research focusing on employers' talent attraction practices through social networks, I narrow my focus to this phase of the recruitment process. While gig economy platforms are becoming increasingly significant mediums for labor matching (Vallas & Schor, 2020; Wood & Lehdonvirta, 2022), they are not included in my analysis, as the analysis is primarily focused on the context of social media platforms.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> While Elder-Vass (2008, p. 455) critiques actor-network theory from the lack of ontological depth and dismissal of social order, he concludes that it remains "a valuable provocation to sociologists who neglect non-human entities entirely."

<sup>&</sup>lt;sup>5</sup> Gig economy platforms are digital marketplaces that connect organizations with independent workers, enabling short-term, flexible work arrangements known as "gigs" (Vallas

To summarize my research aims and analytical framework, I distinguish non-digital and digital networks as separate mediums of labor, each characterized by unique traits governing information dissemination and their ability to make an individual's behavior visible to others. My first aim is to examine and identify how interpersonal ties and social media ties, respectively, contribute to labor matching through proactive candidate search. My second aim is to examine how algorithmic curation mechanisms affect the role of social ties as facilitators of information flow on social media platforms, specifically focusing on how these changes impact the role of social ties in proactive candidate search. Finally, I compare how these mediums differ in terms of their strategic and ethical implications for labor matching. As such, the dissertation addresses the following research questions:

RQ1: In what ways do interpersonal ties and social media ties contribute to labor matching through proactive candidate search?

RQ2: How do algorithmic curation mechanisms on social media platforms intertwine, reshape, and potentially diminish proactive candidate search through social ties?

RQ3: What strategic and ethical implications arise from employers' use of interpersonal ties and social media platforms in proactive candidate search?

#### 1.2 The Research Articles and Their Roles

This dissertation addresses the three research questions through three independent research articles. Each article contributes to the overarching goal of the dissertation by either focusing on non-digital or digital contexts or either examining the perspectives of job candidates or employers. Together, these articles provide a comprehensive perspective on the subject under study. Table 1 provides an overview of the three articles and their roles in answering the research questions. Next, I will briefly summarize the articles and their purpose in this dissertation.

<sup>&</sup>amp; Schor, 2020). Prominent examples of gig economy platforms include Uber, Wolt, MTurk, Upwork, and Fiverr.

Table 1.	The dissertation's article	es and their role in	answering the resea	arch questions.

A wisla	Title Pole in answering the research questions.	
Article	Title	Role in answering the research questions
I;	Social contacts and	RQ1: The article investigates how recruiters utilize social
Qualita-	informal	ties and interpersonal networks in various proactive re-
tive	knowledge in re-	cruitment strategies, including proactive candidate search.
case	cruiting:	DO2. The entire and environtly to evere an intermediate
study	A case study of	RQ2: The article predominantly focuses on interpersonal
	construction indus-	ties and offline social networks.
	try SMEs	RQ3: The article provides insights into the strategic
		and ethical aspects by discussing the benefits and draw-
		backs of employers using interpersonal ties for proactive
тт.	Conint months	candidate search.
II:	Social media as a	RQ1: The article examines how digital ties affect a job
Cross- sectional	place to see and be	seeker's probability of getting recruited to a job.
	seen:	DO2: The could be interested as a second for
survey study	Exploring factors	RQ2: The article introduces a novel framework for study-
study	affecting job attain-	ing social media job attainment and provides insights into
	ment via social me-	the factors that influence platform-mediated labor match-
	dia	ing, such as platform usage, strategic networking, and
		posting of professional content.
		RQ3: The article examines platform-mediated labor match-
		ing by focusing on the supply side of the labor market,
		highlighting key factors that increase job seekers' probabil-
		ity of getting recruited to a job through social media plat-
		forms.
III:	What if I disagree	RQ1: The article provides insights into how digital ties af-
Grounded	with the algo-	fect job seekers' searchability and visibility to recruiters on
theory	rithm? Examining	social media platforms.
study	recruiters' auton-	social media platforms.
J	omy-enhancing	RQ2: The article examines how algorithmic platform medi-
	practices on profes-	ation affects the matching between recruiters and job can-
	sional social media	didates.
	platforms.	arantes.
	r	RQ3: The article delves into the perceived drawbacks of
		unintentional platform mediation, highlighting the connec-
		tion between algorithmic platform mediation and recruiter
		autonomy.
_		www.ioiiij.

Article I primarily contributes to RQ1 by focusing on the non-digital social network context and interpersonal ties by examining how employers utilize their social contacts in various phases of recruitment. This empirical case study aimed to examine how employers utilize social ties in various stages of recruitment and

what kind of actions relate to the successful utilization of social contacts. The qualitative interviews of construction industry SMEs provided a valuable viewpoint for studying the role of social ties in labor matching, as the informants were well-versed in utilizing their social contacts in various stages of recruitment, including proactive candidate search. By focusing on the demand side, the study contributes to understanding of non-digital ties by identifying how interpersonal ties differ from other labor market mediums in their ability to convey particularly nuanced and hard-to-reach information. The article contributes to RQ3 by discussing the various benefits and drawbacks of employers' use of interpersonal ties for recruitment purposes.

Article II focuses on the supply side of the labor market and examines what factors affect job seekers' exposure to job leads and career opportunities on social media platforms. This article contributes to all research questions (RQ1, RQ2, and RQ3) by introducing a novel framework that conceptualizes social mediamediated labor matching as a phenomenon where job seekers and employers can engage in labor-matching processes by either actively seeking professional opportunities or searching for potential job candidates. In this study, I analyzed how Finnish social media users' online behavior, such as strategic networking and professional impression management, affects one's probability of getting recruited to a job through social media. By doing so, it offers insights into the factors associated with proactive candidate search. The findings from this study make a significant contribution to RQ1 by elaborating on social media ties while simultaneously recognizing other factors that contribute to differing professional outcomes in the social media-mediated job market (RQ3).

Article III primarily contributes to RQ2 by exploring how algorithmic curation mechanisms impact labor matching on social media platforms. Drawing from qualitative interview data gathered from recruiters who utilize professional social media platforms in their daily recruitment practices, the study focuses on the demand side and examines how recruiters leverage algorithmic search and recommendation systems in their proactive candidate search. The study underscores the notion that job seekers' visibility to potential employers on digital platforms hinges on their capacity to align their digital presence with algorithmic preferences. The study contributes to RQ3 by highlighting the unintentional adverse effects of algorithmic platform mediation, specifically focusing on the tensions between algorithmic pre-curation mechanisms and recruiter autonomy.

### 1.3 Contributions and Outline of the Study

This dissertation contributes to a more nuanced understanding of social networks and argues that interpersonal social ties and digital social media ties differ in their ability to convey professionally relevant information between the supply and demand of labor. Additionally, the dissertation illustrates several developmental processes that future research needs to address. First, it explicates

the ongoing transition in which demand-side actors are adopting increasingly proactive approaches to talent acquisition. This shift is significant because it influences contemporary job attainment procedures, as demonstrated by this dissertation's examination of employers' proactive candidate search. Second, it advances the understanding of the factors that affect and mediate individuals' access to positions on social media platforms, emphasizing the influential role of algorithmic curation mechanisms. This contribution is important because previous research has primarily focused on how these systems influence individuals' exposure to information and media content (e.g., Bandy & Diakopoulos, 2021; Dujeancourt & Garz, 2023), with little attention given to their impact on labor-matching processes and individuals' access to positions. While this study focuses on labor matching, it also contributes to the broader discussion about platform power and the influential role of algorithmic curation mechanisms in mediating access to content, particularly individuals' access to professional opportunities and employers' access to potential job candidates.

The structure of this dissertation is as follows: Chapter 2 explores the broader context of labor matching, conceptualizing the labor market as a two-sided matching market where various mediums facilitate information exchanges between both parties. Chapter 3 delves specifically into social networks as labor market mediums, highlighting key differences between non-digital and digital networks. It introduces the key characteristics of both mediums that influence labor-matching processes. Chapter 4 specifically examines the impact of algorithmic curation mechanisms on the information flow on social media platforms, particularly focusing on how these mechanisms affect job seekers' access to positions and employers' access to job candidates. In Chapter 5, I present the research design and methodology of the dissertation, along with the underlying philosophical framework of the study. Chapter 6 summarizes the sub-articles on which this dissertation is based. Finally, in Chapter 7, I consolidate my findings and summarize the main results of the dissertation, offering recommendations for practice and policy and suggestions for future research.

### 2 CONCEPTUALIZING THE TWO-SIDED MATCH-ING PROCESS OF LABOR

"Labor markets are matching markets. You cannot just decide to work for Google – you have to be hired. And Google can't just decide that you will work for them – they have to make you an offer. And like say university admission, matching markets require something to intervene, whether it be institutions or technology, to make this exchange succeed."

- Alvin E. Roth, economist and Nobel laureate

In his article "Matching Processes in the Labor Market," Coleman (1991) was among the earlier sociologists to emphasize the labor market's matching function by theorizing that the methods by which people find jobs—or jobs find people—are inherently rooted in the matching process between workers and jobs, along with their respective resources. The nature of these mediums can vary, with some requiring more active participation from job seekers and others relying more on employer activity. Bills et al. (2017) emphasize the importance of analyzing labor matching from both sides of the labor market. When labor matching is predominantly studied from the perspective of the supply side, and emphasis is put on the traits of job seekers and workers, employers are often relegated to taking a passive role in the labor-matching process. While job seekers' characteristics significantly impact labor market outcomes, the sole focus on job seeker characteristics can be misleading as it is ultimately the decisions made by employers that dictate which traits are valued or penalized in the recruitment process (Jackson, 2007).

In the following section, I conceptualize labor matching as a two-sided process, highlighting the dynamic interplay between job seekers' efforts on the supply side and recruitment efforts on the demand side. I discuss how technological advancements have enabled employers to adopt more active approaches in the labor-matching process. Following this, I examine how these changes have elevated the importance of visibility in labor matching. Additionally, I provide an overview of the socio-technical mediums that facilitate matching job seekers and employers, highlighting their distinct features.

### 2.1 The Interplay Between Job Search and Recruitment

In this study, I view labor matching as a two-sided process, consisting of both supply and demand sides, with each actively engaging in the labor-matching process. Effective matching between these actors necessitates an exchange of information between job seekers and employers (Bangerter et al., 2012). Focusing on the supply side, much of the literature describes **job search** as a process where job seekers actively participate in search activities to discover and apply for available positions. This involves acquiring information about potential job opportunities through instrumental job search activities, namely, deliberate efforts to seek and acquire professionally relevant information (McDonald, 2010). Focusing on the demand side, the literature has largely focused on employers' recruitment practices. The definitions of **recruiting** show a degree of variation. Simpler recruitment models divide the process into two phases: the screening phase, where employers collect a sufficient pool of potential job candidates, and the selection phase, where the most suitable candidates are chosen from the acquired talent pool (Bills, 1988, 1999). In one of the more comprehensive and frequently used definitions, Barber (1998) defines recruitment as consisting of three distinct phases. In the first phase, employers must identify and attract potential job seekers, effectively generating a pool of applicants. In the second phase, employers must be able to maintain job applicant status so that they will continue to hold interest in the offered position until the end of the recruitment process. In the final stage, applicants decide whether to accept the offered position, and during this stage, employers do their best to influence applicants' decisions so that they would accept the offer.

Other definitions view labor matching as a process that entails actions and decision-making by both parties in the labor market. For example, Fevre (1992) provides a detailed overview in his definition, identifying five distinct processes within the labor market. In the first, informing employers phase, employers must become aware of which workers are available for employment. For this to happen, workers need to somehow convey their availability to employers, or employers need to actively approach workers and inquire about their availability for employment. The second phase consists of informing workers, meaning that workers must somehow become aware that employment is available. Workers can become aware of their professional opportunities either through the efforts of employers or through their own initiative. The third and fourth phases relate to screening from both sides: in these phases, employers aim to acquire information about job candidates to evaluate their suitability for a given position, while job seekers simultaneously gather information about the employing organization to determine whether to accept the offered position. In the final phase, employers must decide whether to make an offer to buy labor, and workers need to decide whether to make an offer to sell labor. It should be noted that labor-matching processes do not always proceed in such an orderly manner,

as in practice, these phases often occur non-linearly and overlap (Barber, 1998, pp. 12–13; Fevre, 1992, pp. 13–15).

When employers proactively search for potential job candidates, they simultaneously partake in multiple recruitment phases. When discussing about **proactive candidate search**, I specifically refer to employers' proactive efforts to identify, evaluate, and attract potential job candidates (Chapman et al., 2005; Koivunen, 2024; McDonald et al., 2019). Although this recruitment practice has been studied in the literature, the terminology has varied. For instance, Kroll et al. (2021) term proactive candidate search as "active sourcing," a phrase commonly used by industry practitioners. Gandini and Pais (2015, 2018) define employers' use of social networking sites for screening purposes broadly as "social recruiting."

I introduce the term "proactive candidate search," which encompasses employers' efforts to identify potential job candidates through both digital and non-digital networks. It is important to note that when employers gather information about potential candidates, either through interpersonal ties or social media platforms, the interpersonal ties and digital mediation systems curate the information they are sharing forward. This means that while proactive candidate search through social ties is primarily associated with the talent attraction phase of recruitment, it also involves the screening of candidates (see Figure 1).

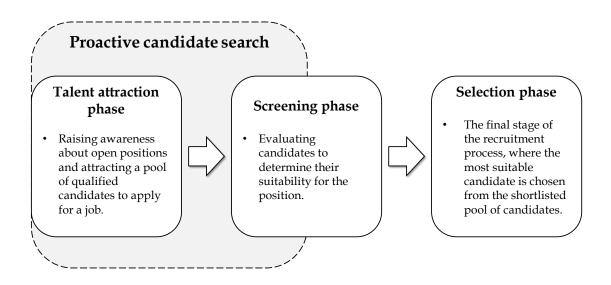


Figure 1. Proactive candidate search in the recruitment process.

A traditional job advertisement exemplifies a recruitment method largely reliant on the activity of job seekers. Although employers need to formulate and review the applications actively, job advertising largely hinges on the activity of job seekers to discover the advertisement and apply for the given job. Conversely, proactive candidate search is characterized as a recruitment method where the acquisition of a talent pool is primarily dependent on the activity of employers. When employers gather a talent pool through job advertisements, job seekers must actively make themselves visible to employers by applying for a given job. However, by actively searching for potential job candidates, whether through non-digital networks or social media platforms, employers can reach candidates who are not actively looking for jobs by actively searching and informing potential job candidates about the positions they could be suitable for (Finlay & Coverdill, 1999). This enables employers to expand the potential talent pool to passive job candidates, namely employed individuals who are not actively looking for work but might be open to changing jobs if a suitable position is offered to them (Nikolaou, 2014).

# 2.2 Declaring the "War on Talent": Employers Transition Toward Proactive Recruitment Approaches

A pivotal argument of my dissertation posits that digital connectivity and emergent technologies have increased the visibility of employees through data, granting employer organizations greater opportunities to actively participate in labor seeking (Black & Esch, 2020, 2021; Garg et al., 2022; Morelli & Illingworth, 2019). As I discuss emergent technologies, I am specifically referring to two distinct technological developments that have expanded employers' ability to practice proactive search of potential job candidates. The first technological advancement relates to the surge in data infrastructure and the accessibility of worker data via the Internet, mainly linked to the proliferation of digital connectivity and social media platforms (Behrend et al., 2023; Comunello et al., 2022). The second advancement pertains to the development of algorithmic evaluation tools and systems, encompassing a range of algorithmic curation systems and predictive analytic tools designed to assess, profile, and forecast individual characteristics and behaviors (Koivunen, 2024; Köchling & Wehner, 2020; Martindale & Lehdonvirta, 2023). These algorithm-assisted tools are increasingly used to assess the increasing volume of user data that can be costeffectively acquired through the Internet, particularly social media platforms. Commenting on the matter, Garg et al. (2022, p. 1600) state that machine learning technologies support the transition from the "traditional reactive" human resource management to a more "proactive and predictive" HRM practices by facilitating cost-effectiveness in routine tasks, such as evaluating job applicants' profiles, and also in complex predictive tasks, such as analyzing employee turnover.

While I contend that the advancements of socio-technical communication technologies facilitate the ongoing transition toward proactive recruitment strategies, the ideological transition encouraging demand side actors to adopt more active recruitment practices began well before the proliferation of social media technologies. The paradigmatical origins of employers' proactive approach to talent acquisition are often traced back to the mid-1990s when

Michaels et al. (2001) coined the term "War for talent" as a metaphor to describe the increasingly competitive landscape of talent acquisition and the growing importance of companies' intangible assets, such as intellectual capital and personnel, compared to their tangible assets. Providing commentary on the ideology of proactive recruitment strategies, Michaels et al. (pp. 52–53) argue the following:

Instilling a new talent mindset and developing a powerful employee value proposition will operate as a compelling advertisement for your company, but they aren't enough. A robust sourcing strategy is crucial. That means being clear about the kinds of people that are good for your organization, using a range of innovative channels to bring them in, and having a complete organizational commitment to getting the best.

The early articulations laid the ideological foundation for contemporary recruitment strategies, prompting employer organizations to put greater emphasis on proactive recruitment methods instead of solely relying on traditional recruitment methods, such as job advertising. The rationale for proactive recruitment approaches has been linked to broader demographic trends, specifically the shrinking labor force due to the aging population in Western countries and the transition toward knowledge-intensive work, which amplifies competition for human capital among organizations (Trost, 2014). Outside the HRM industry, the societal context surrounding labor matching has also undergone political and cultural changes, leading to a growing demand for increased quantification and measurement of social phenomena (Espeland & Stevens, 2008). During the same time period, the demands for increased measurability were paired with a growing belief that technology, by default, provides the best solutions to business problems or social issues (Morozov, 2013; Powell, 2021; Selbst et al., 2019). In the HRM sector, the transformative impact of the cultural shifts emphasizing measurement, analysis, and quantification of worker characteristics is evidenced by recruiters' inclination to utilize sociotechnological tools at the expense of fundamental values such as fairness and autonomy (Koivunen et al., 2023).

As these ideological shifts extend beyond the organizational sphere, permeating the broader societal context, workers have come to anticipate that prospective employers may scrutinize their actions and online activities (Berkelaar, 2014; Hampton, 2016; Jacobson & Gruzd, 2020). The expectations of being seen within the "electrical panopticon" (see Bain & Taylor, 2000) have prompted diverse reactions depending on the assessment context. For example, in the context of worker surveillance, which involves tracking employee activities through data (Ball, 2021; Hafermalz, 2021; Hickok & Maslej, 2023), the anticipation of evaluation has incentivized employees to practice active resistance by developing countersurveillance strategies aimed at making themselves less visible to employers (Anteby & Chan, 2018; Clawson & Clawson, 2017). In the context of labor matching, the expectations of being seen and evaluated by prospective employers have raised privacy concerns among individuals (Jacobson & Gruzd, 2020). However, these expectations have also motivated individuals to proactively enhance their visibility to prospective

employers through online impression management strategies (Harrison & Budworth, 2015; Krings et al., 2021; Roulin & Levashina, 2016).

It is important to note that employers' proactive recruitment strategies are not a novel phenomenon, as they have been practiced since long before the advent of social media technologies. For example, employers have a longstanding tradition of proactively tapping into their employees' social networks through referral programs (Marsden & Gorman, 2001; Saloner, 1985). Similarly, the established method of engaging third-party search firms to connect with passive job candidates illustrates a recruitment approach that relies on the demand side's activity (Bonet et al., 2013). However, these strategies have limitations: Interpersonal social networks, while often resulting in suitable matches, only reach a small number of candidates (Mencken & Winfield, 1998). Additionally, due to their high costs, search firms are typically reserved for expensive hires, such as executive positions (Hamori, 2010, 2014). In contrast, the introduction of cost-effective tools and the widespread availability of worker data have enabled employer organizations to efficiently access a vast pool of passive candidates through social media networks, effectively overcoming both of these challenges (Black & Esch, 2020). I argue that employers' transition toward proactive recruitment strategies demonstrates a fundamental shift in labor matching, with the potential to affect broader societal phenomena, such as social stratification (see Jackson, 2009). When employers proactively seek out potential candidates directly instead of publicly posting information about potential job opportunities, only a preselected group of job seekers become aware of the available positions and the professional opportunities for which they might be qualified to apply. The potential for stratification is amplified by novel technologies, which tend to profile candidates into different groups of workers, treat these groups differently, and worsen demographic disparities in the labor market (Alexander et al., 2024; Martindale & Lehdonvirta, 2023).

### 2.3 Formal and Informal Mediums of Labor

The notion of the labor market as a two-sided matching process highlights that for job seekers to find professional opportunities and for employers to find those willing to sell labor, the matching process requires a medium that allows the exchange of information between these job market actors (Bangerter et al., 2012). A commonly applied categorization divides labor market mediums into formal and informal recruitment channels (see Rees, 1966). Formal channels allow employers and job seekers to acquire information about each other through non-personal mediums, such as public and private employment agencies, job advertisements, and recruitment from schools and colleges (Gërxhani & Koster, 2015). On the other hand, informal channels are interpersonal in nature, as they convey information through personal mediums, such as relatives, friends, acquaintances, employees, and other employers. Bills et al. (2017, p. 297) define informal recruitment as occurring within "a web of social networks," characterized

by varying degrees of trust, information flow, and reciprocity. Given that this study focuses largely on informal mediums, social ties and interpersonal channels will be more thoroughly explored in Chapter 3.

While categorizing recruitment channels into formal and informal types offers a tangible typology for comparing various recruitment mediums, not all channels can be definitively classified as strictly belonging to one category or the other. For instance, when an employer organization outsources candidate search to third-party headhunters, employers utilize headhunters' social networks and personal contacts, thus indirectly utilizing interpersonal (informal) mediums in the process (Finlay & Coverdill, 1999). The dualistic categorization of formal and informal mediums also does not fit neatly into the online hiring context. For instance, the professional social media platform LinkedIn serves as a formal recruitment platform, offering possibilities to practice job advertising and post company profiles, but it also supports informal networking through personal connections, recommendations, and endorsements.<sup>6</sup> Brighenti (2010) introduces a crucial notion related to the amalgamation of formal and informal aspects of job attainment: as communication is increasingly facilitated through information technologies and contemporary spaces become increasingly digitized, delineating between objects (job seekers) and environments (social media platforms) becomes increasingly challenging (pp. 40-41). This means that the providers of these spaces can influence the matching between job seekers and employers (Plantin et al., 2018). For example, platform providers' infrastructural decisions regarding user profiles can have significant outcomes in signaling between employers and job seekers (Ajunwa & Greene, 2019).

The Finnish job market is typical of Scandinavian countries, where the use of social contacts to secure employment is less common compared to many other parts of the world (Franzen & Hangartner, 2006). However, in a recent survey, social media was ranked as the second most important recruitment channel among Finnish employer organizations (Räisänen, 2023). The important role of social media in recruitment reflects its diverse applications—labor matching through social media platforms goes far beyond obtaining leads and recommendations from friends and acquaintances; it also includes channels for job advertising, proactive candidate search, and employer branding efforts.

Different mediums offer varying advantages and disadvantages in terms of labor matching. Black and Van Esch (2020) provide examples of the varying channels: A widely distributed job advertisement can potentially reach a vast segment of the available labor force but offers limited options for providing information about the available position. On the other hand, a company can achieve significant information richness by leveraging its employees, who could provide detailed descriptions of the company and its available positions to their friends and family. Yet, the reach would be confined to the employees' immediate social networks, which is why informal mediums typically reach fewer job seekers compared to formal mediums. Hence, relying solely on informal recruitment is unlikely to fulfill all of an organization's hiring needs

<sup>&</sup>lt;sup>6</sup> https://business.linkedin.com/talent-solutions

(Mencken & Winfield, 1998). Search firms usually offer a balanced blend of comprehensive information and extensive reach, yet they are often accompanied by high costs, thus limiting their broader utilization (Black & Esch, 2020). While employers aim to reach as many qualified candidates as possible through their chosen medium, the larger size of an applicant pool is not always optimal as it can potentially lead to increased costs during the latter screening phase. The "positive problem" scenario arises when there is an excess of high-quality applicants in the talent pool, requiring resources to differentiate the "best from the good." Conversely, another challenge emerges when there is an abundance of inappropriate applicants, necessitating additional efforts to discern potential quality candidates from the pool of unsuitable applicants (Marsden & Gorman, 2001, p. 107).

The choice of labor medium is significant for both employers and job seekers, as research has shown that the medium through which a worker is hired correlates with various post-hire outcomes (Brown et al., 2016; Burks et al., 2015; Dustmann et al., 2016; Loury, 2006). According to traditional labor market models, an employer's choice of recruitment method is dictated by the prevalent labor market conditions and the episodic availability of the labor force (Chade et al., 2017; Rogerson & Shimer, 2011; Yashiv, 2007). These models are not without their merit. For example, Russo et al. (2001) found that employers tend to favor public employment services and to hire unemployed candidates in times of excessive supply of labor, whereas in times of excessive demand, employers prefer the use of advertisements and the hiring of already-employed job seekers. To put it simply, during tight labor markets with low unemployment and high demand for labor, employers may struggle to find suitable candidates to fill job vacancies. In such situations, they may need to adopt more proactive recruitment strategies and actively focus on targeting passive job seekers.

Black and Van Esch (2020) argue that the development of AI-assisted recruitment tools has made targeting passive job candidates so accessible and cost-effective that recruiters' decisions to engage in proactive candidate searches are no longer as heavily influenced by prevailing labor market conditions. The authors suggest that in times of analog recruiting, recruiters were confined by their limited cognitive resources, and recruitment practices were guided more by necessity, whereas in the age of digital recruiting, employers can practice proactive recruitment toward passive job seekers through choice. In a paradigm where an organization's intangible assets are considered paramount in determining its value, actively—and, at times, aggressively—expanding an organization's human capital is seen as a more rational approach than passively reacting to fluctuating personnel demands within the organization (Black & Van Esch, 2021).

Social scientists have expanded upon traditional models of labor matching by showing that the preferences regarding different recruitment mediums are influenced by the surrounding socio-institutional context in which they operate. Sharone (2014) found that job seekers operating in an Israeli labor market tend to shy away from utilizing their social contacts, whereas, for job seekers in the U.S.,

the utilization and cultivation of interpersonal ties were central to their job search efforts. Different types of employer organizations also utilize various recruitment channels, as studies have shown that larger companies tend to favor formal mediums, whereas smaller companies rely more on cost-effective informal channels (Carroll et al., 1999; Rebien et al., 2020). Kotey and Sheridan (2004) argue that this inclination toward certain recruitment channels relates to organizational culture: larger organizations tend to adopt more hierarchical structures, increase documentation, and implement additional administrative processes, which is why organizations tend to favor formal recruitment channels as their workforce size grows.

### 2.3.1 Moral and Legal Considerations for Proactive Recruitment Approaches

As recruitment processes are influential societal processes that can have farreaching consequences on both the individual and societal levels (Jackson, 2009), recruitment processes are subjected to various legislative restrictions that aim to mitigate discrimination during the recruitment process. In Finland, several pieces of legislation promote equitable recruitment by prohibiting discriminative treatment during the recruitment process. According to Finnish legislation, employers should primarily gather information directly from the job candidates themselves (759/2004; 1050/2018), meaning that obtaining personal data from external sources without the candidate's consent, such as through typical cybervetting practices such as Googling the candidate or seeking information from unlisted acquaintances, can be considered illegal. This is not the case in the U.S., for example, where the legislation moderating employers cybervetting practices are generally more lenient.

Proactive recruitment approaches challenge many legislative frameworks that regulate recruitment processes, as they diverge from the conventional understanding of a "typical" recruitment process that most legislative frameworks were originally designed to govern. For instance, when recruiters use platforms such as LinkedIn to search for and identify potential candidates, they are not using the available information in a traditional screening sense but rather to accumulate a pool of potential job candidates. The identified individuals are not yet formally part of the recruitment process, as they have not applied for any open position, meaning that the information is not used to evaluate job applicants but only to gain information about potential job candidates. During this process, the potentially unfair decisions that are typically thought to occur in the screening and selection phases may occur during the talent attraction phase, as employers make excluding decisions by choosing to inform certain candidates based on potentially discriminatory criteria (see Alexander et al., 2024).

When employers proactively target potential job candidates, it becomes increasingly challenging to explicitly identify discriminatory decisions, as those excluded from the process never become aware that they were not informed

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<sup>&</sup>lt;sup>7</sup> Employment Contracts Act (55/2001); Act on Equality between Women and Men (232/2005); Non-discrimination Act (1325/2014).

about the potential job opportunities. This issue has been particularly noted in the context of targeted job advertising, as research indicates that algorithm-assisted ads can potentially discriminate based on gender and ethnicity (Dalenberg, 2018; Imana et al., 2021). Kroll et al. (2021) highlight that using third-party recruitment agencies also allows employer organizations to circumvent discriminative legislation, as they can instruct agencies to contact certain kinds of candidates while their own official job advertisements and company websites comply with the non-discriminatory legislation. While only a few studies have highlighted the tensions between emerging proactive recruitment approaches and current legislative frameworks, the existing literature emphasizes the need for re-evaluating conceptual understanding of contemporary recruitment processes.

### 2.4 The Emerging Importance of Visibility in Labor Matching

When employer organizations proactively approach potential job candidates instead of relying on public job advertising, the efficiency and fairness of labor matching largely depend on their ability to reach out to as many candidates as possible from the available labor force. This underscores the prominent role of labor visibility in the labor-matching process. In his seminal article "The New Visibility," Thompson (2005) provides insightful analysis and discussion on how technology-mediated communication channels have produced new forms of social interaction, establishing a new logic on that which can be seen and cannot be seen. Hatuka and Toch (2017) contend that visibility in contemporary technology-mediated society has become such an integral part of human life that visibility should be considered a human condition rather than a feature. While the earlier articulations of social visibility date back to the 1960s (see Clifford, 1963), it is only in recent years, propelled by the rise of communication technologies, that the concept of visibility has gained more traction in the scientific community (see Ball, 2021). One possible explanation for the lack of interest might be that while visibility meaningfully intersects with various sociological categories such as actor, organization, system, class, gender, and race, its inherently abstract and hard-to-define nature defies easy categorization and, thus, eludes traditional categories (Brighenti, 2010; Hjarvard, 2014). While it becomes a relatively straightforward task to differentiate between various actors, for example, job seekers and employers, from a phenomenological standpoint, it is challenging to factually determine which objects and factors remain invisible, let alone formulate a variable to effectively measure one's visibility (Brighenti, 2017). This dynamic becomes analogous with the core tension of employers' proactive recruitment strategies – it often remains a mystery for employers, and especially for job seekers, what kind of candidates and groups of people remain unseen to employers and outside the recruitment process.

In this study, I discuss about visibility and transparency. To avoid misconceptions, it is necessary to delineate between these somewhat overlapping

but distinct theoretical concepts. While these terms intuitively seem to correspond and have been conflated in scholarly work (see Michener & Bersch, 2013), it is important to recognize that visibility and transparency are separate concepts and do not share a direct correspondence. Stohl et al. (2016) clearly delineate visibility and transparency. They define **visibility** as a combination of "availability of information, the approval to disseminate it, and accessibility of *information to third parties"* (p. 124). On the other hand, **transparency** refers to the level of openness in the decision-making process that leads to a specific outcome, whether it is the decisions made by a political institution or by an algorithmic system (see Ball, 2009; Lepri et al., 2018). In the context of social media platforms, transparency primarily relates to the openness of decisions regarding how users and information are categorized and ranked on the platform, as well as what information is displayed through the user interface (Bader & Kaiser, 2019; Burrell, 2016; Kizilcec, 2016). Conversely, visibility concerns the tangible outcomes of such decisions that render individuals' behaviors, knowledge, preferences, and connections within communication networks visible to others (Treem & Leonardi, 2013). The dissonant interplay between transparency and visibility becomes evident in situations where heightened visibility can cause inadvertent consequences for transparency. This occurs when increased exposure to nonrelevant information can lead to information overload, which can inadvertently cause the dismissal of relevant information (Edmunds & Morris, 2000; Leonardi & Treem, 2020). Transparency has been applied mainly to studying governance, accountability, and algorithmic systems (Grant et al., 2023; Nguyen, 2022; Shin, 2020; Shin & Park, 2019).

It is also essential to differentiate between visibility and recognition. The theory of recognition primarily centers on the subjective, phenomenological experiences of individuals and groups, aiming to illuminate the dynamics of human interaction and the associated expectations within modern Western societies. Essentially, recognition theory examines how the collective acknowledgment of individuals' identity, status, and merit shapes individual identity, social integration, and notions of justice (Honneth, 2004; Schweiger, 2020). Recognition theorists such as Schweiger (2019) posit that recognition of others is not a distributable resource but a fundamental-right value that arises from interaction of people recognizing each other, thus holding instrumental and intrinsic value in its own right. As the delineations between proper recognition, non-recognition, and misrecognition are inherently normative, the theory maintains a strong critical stance. Recognition theory has been applied mainly in political theory, particularly to the study of marginalized groups (Swerts & Oosterlynck, 2021; Turtiainen, 2018).

All the aforementioned phenomena share a common issue: it becomes difficult to delineate a definitive line between proper visibility, transparency, and recognition. These problems starkly contrast with public and governmental demands for the increased measurability and quantification of social phenomena (Espeland & Stevens, 2008; Selbst et al., 2019). While the theory of visibility encounters similar challenges regarding the accurate definition and measurement of the variable, the phenomenological obstacles can be overcome

by framing visibility not as a variable possessed by an individual actor but rather by directing attention to how various intermediaries, such as social networks and digital platforms, mediate and regulate the visibility of actors, such as job seekers (Brighenti, 2017). This approach enables social scientists to refrain from adopting a normative position regarding the optimal level of visibility. Instead, it enables social scientists to direct attention toward tangible phenomena, such as identifying what kind of individuals and groups of people are predominantly made visible through particular mediums while also acknowledging those less prominently represented. As such, authors such as Stohl et al. (2016) argue that while transparency is a "valued term" in a sense that it refers to an ideal level of openness in the decision-making process, visibility is a more empirical phenomenon as it is related to factors that can be empirically measured.

While the amplification of behavioral visibility is a widely recognized feature of contemporary computer-mediated communication (see Section 3.1.1), there is still relatively little research on how the amplification of behavioral visibility has affected contemporary labor-matching dynamics. Within the platform context, the concept of visibility has been used to study the impact of platform mediation on the visibility of gig workers (Gruszka & Böhm, 2022). Dato et al. (2021) found that when workers gain greater visibility in the labor market, income redistribution among workers of varying abilities intensifies, and the efficiency of job assignments within firms improves. Focusing on a face-to-face context, McDonald et al. (2008) found that physical visibility, such as workplace presence, influences the perceptions of workers and subsequently impacts their long-term career success.

# 3 UNVEILING DIFFERENCES: LABOR MATCHING IN INTERPERSONAL AND SOCIAL MEDIA NETWORKS

"Because all social interaction unavoidably transmits information, details about employers, employees, and jobs flow continuously through social networks that people maintain in large part for non-economic reasons."

- Mark Granovetter, social network theorist

We humans are social creatures, with a fundamental need for social connection (Baumeister & Leary, 1995; Dunbar, 1998; Feldman, 2017; Holt-Lunstad, 2022). Evolutionary mechanisms have primed us for interpersonal interaction, embedding tendencies in our face-to-face interactions that promote collective, pro-social behavior among closely connected individuals (Christakis, 2019; Luhmann, 2017; Penner et al., 2005). Additionally, our social interactions and economic behavior are embedded in existing cultural and social systems, which influence us to align our choices and behavior with the surrounding networks of social relations (Granovetter, 1985; Schilke et al., 2021). While there may be debate about the extent to which existing social systems result from intentional human action, it is evident that the ways in which we behave in interpersonal face-to-face interactions are influenced by deeper factors than sporadic, on-the-spot cost-benefit analyses.<sup>8</sup>

Moore (2023) argues that datafied social relations are embedded in a capitalist model of social relations. In the digital sphere, the prerequisites of online interaction are, at least in part, products of intentional human design. Social media networks are human artifacts where social interactions are facilitated and constrained by technological systems that are shaped by human decisions (Shin & Park, 2019). While technology has the potential to connect us in unprecedented ways, online communication may be prone to

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<sup>&</sup>lt;sup>8</sup> Granovetter (1985, p. 487) cautions against both over- and undersocializing human behavior, stating that "Actors do not behave or decide as atoms outside a social context, nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy."

misinterpretation and misunderstanding, as it can lack the depth, nuance, and emotional resonance of face-to-face interactions (Turkle, 2011). Although we humans are primed for social interaction, these skills do not seamlessly translate to digital environments, where communication relies on a different set of symbols and cues when compared to face-to-face interactions.

I argue that the distinct characteristics of interpersonal and platform-mediated mediums impact and shape the flow and quality of information, producing quantitative and qualitative differences in the labor matching facilitated by these mediums. In the following section, I present an overview of the development of social media technologies and the phenomena that have emerged from this development. I then compare these characteristics to those of non-digital networks by highlighting the main differences between interpersonal and platform-mediated interaction. Throughout the chapter, I will explore what kind of resources, opportunities, and outcomes these factors have produced in the context of labor matching.

# 3.1 From Face-to-Face to Facebook: A Brief Recap on the Evolution of Social Media Platforms

A distinctive challenge in examining social dynamics within the digital sphere stems from the continuous technological development of social media platforms. This ongoing development continually reshapes these platforms, consequently impacting the social processes that occur within them (Ellison & boyd, 2013, p. 165). Studies have also highlighted the context-specific nature of social media platforms, questioning whether they should be treated as a unified category at all.

Given the rapid evolution of communication technologies, social media researchers face a moving target. Therefore, I try to avoid overly fixating on the specific technical details of these platforms and instead focus on the tangible outcomes arising from them. However, a brief historical overview of the commonly used definitions of social media platforms is necessary, as it exemplifies the evolving nature of these technologies.

While the concept of social media is fluid and lacks precise boundaries, its development is unequivocally linked to the technological development of Web 2.0 technologies. In one of the earlier and widely cited definitions, Kaplan and Haenlein (2010, p. 61) define **social media** as a "group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content." The Web 2.0 phenomenon refers to the technological advancements of the mid-2000s that enabled the introduction of participatory technologies such as blogs, wikis, and social networking services

<sup>&</sup>lt;sup>9</sup> The metaphor Web 1.0 refers to the early static and "read-only" stage of the Internet, characterized by users' ability to acquire information from the Web rather than produce usergenerated content (Fuchs et al., 2010).

(Rainie & Wellman, 2012). In essence, with the development of Web 2.0 technologies, internet users were invited to contribute content to the Internet through comments, blog posts, and the creation of user profiles on various sites and platforms (O'Reilly, 2007). Emerging from the participatory technologies developed during the Web 2.0 era, social networking sites rapidly became the primary medium for social interaction on the Internet (Rainie & Wellman, 2012).

The definition of social networking sites has evolved throughout the years. In the late 2000s, boyd and Ellison (2007) defined **social networking sites** as "webbased services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." Almost a decade later, the authors acknowledged the sociotechnological development of these platforms and revised their original definition of social networking sites as follows:

A social network site is a networked communication platform in which participants 1) have uniquely identifiable profiles that consist of user-supplied content, content provided by other users, and/or system-level data; 2) can publicly articulate connections that can be viewed and traversed by others; and 3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site. (Ellison & boyd, 2013, p. 159).

This updated definition acknowledges that social networking sites transitioned away from their profile-centric origins while still emphasizing that the foundational activity of social networking sites is sharing content within a "bounded group of users" (p. 160). While this aspect was central to early iterations of social networking sites, the bounded nature of social networking sites has been subjected to justified criticism. For example, Kane et al. (2014) take issue with the contention of boundedness by highlighting how social media platforms have expanded their functionality beyond individual websites. This development of boundedness is both sociocultural and socio-technical in nature. The sociocultural development involves merging traditional privacy concepts from offline social interactions with novel socio-technical norms, where users are encouraged to share private information and invite stakeholders into their personal (digital) spaces (Van Dijck, 2013, pp. 18-19). Plantin et al. (2018) illustrate the technical development of boundedness by using Facebook as an example: While users might think that their behavior on the platform is confined to the platform itself, Facebook allows other apps and platforms to undertake concealed transactions via its application programming interface (API). Different apps and platforms can connect to Facebook's database through APIs, facilitating data exchange across platforms. Consequently, APIs promote the development of platform ecosystems where various apps and platforms interact collectively and not in the confines of singular platforms. Kane et al. (2014) argue that the extension of core features facilitated by cultural and technological development renders the term social networking site outdated. Instead, the authors advocate using the term **social media network** as a replacement. In their definition (p. 279), social media networks are characterized by the following four essential features:

- 1) Users have a unique user profile that is constructed by the user, by members of their network, and by the platform.
- 2) Users have access to digital content through and protect it from various search mechanisms provided by the platform.
- 3) Users can articulate a list of other users with whom they share a relational connection.
- 4) Users can view and traverse their connections and those made by others on the platform.

The definition by Kane et al. (2014) highlights the platform's role in mediating interactions among connected users, recognizing that user profiles are shaped not solely by individuals' conduct but also by the actions of others within users' social media networks, as well as the structure of the platform itself. For example, on LinkedIn, other users contribute to users' profiles by providing recommendations to others, thus offering information for third-party users to be utilized in candidate evaluation (Fernandez et al., 2021).

Platforms shape and facilitate interactions through their user interfaces. This can be seen when comparing private and professionally oriented platforms, in which distinct interfaces foster contrasting behavior: Facebook's visual interface encourages users to share personal information, whereas LinkedIn's interface prompts users to showcase their professional experience and competence (Van Dijck, 2013). Another critical concept in the definition by Kane et al. (2014) is the recognition of searchability as a fundamental feature of modern social media platforms. As the authors note, central to these platform-provided search mechanisms are the algorithm-assisted search capabilities, which allow third-party actors to view the behavior of others and search for specific users based on their behavior on the platform. Given the critical role of platform-provided search and recommendation systems in the contemporary platform-mediated labor market, we will revisit them in detail later in Chapter 4.

### 3.1.1 The Amplification of Behavioral Visibility

The development of social media platforms has given rise to two distinct phenomena, which have both produced profound implications for contemporary labor-matching processes. The first phenomenon is the amplification of **behavioral visibility**, which has enabled employer organizations to search, identify, and attract labor on an unprecedented scale. It is now well established that a distinctive feature of technology-mediated communication technologies is their ability to make individuals' communications, interactions, and behaviors observable and accessible to others (Brighenti, 2010; Hampton, 2016; Hansen & Flyverbom, 2015; Leonardi & Treem, 2020; Thompson, 2005; Treem et al., 2020). The material antecedent for the intensification of behavioral visibility stems from the digitalization of social interaction, which has rendered communication of individuals to a form that can be tracked and analyzed by various data analytics tools as well as other third-party actors on the platform (Hansen & Flyverbom, 2015; Sun et al., 2014; Van Dijck, 2014). Leonardi and Treem (2020) argue that the

antecedents of behavioral visibility stem from digitalization and datafication processes, which have facilitated the generation and storing of quantifiable data about individuals. They propose that behavioral visibility is amplified when digital data is integrated with the context of connectivity that renders the information accessible, presentable, and confrontable to others. This context of connectivity encompasses both technical and socio-organizational dimensions. From a technical perspective, contemporary communication technologies offer infrastructural capabilities that facilitate easy access to data (Kolb, 2008). On a socio-organizational level, the expectation of constant connectivity places pressure on individuals to be continuously available, making them constantly visible to others (Dery et al., 2014; Mazmanian, 2013). This techno-social context of connectivity has facilitated contemporary communication patterns that are both persistent and pervasive in nature (Hampton, 2016).

Leonardi and Treem (2020) emphasize that while technology-mediated communication technologies offer insights into people's behavior and communication patterns, what is visible through technological mediums is always an abstraction of behavior, not the behavior itself. This discrepancy stems from the fact that behavioral visibility always entails performative elements from both the actor and the observer. The authors (p. 1605) define behavioral visibility as "the sociomaterial performance of the behavior of people, collectives, technological devices, or nature in a format that third parties can observe through minimal effort such that patterns, causes, or motives can be inferred." What is meant by sociomaterial performance is that behavioral visibility always manifests itself within interactions, where an actor's behavior is observed by an audience(s), emphasizing that visibility is always realized through the perception of the observer - the see-er. Thus, behavioral visibility is influenced by the attributes of both the actor and the observer, and the outcome of the observation is ultimately shaped by the dynamic interaction between what is perceivable through a medium and what the observer – be it an algorithmic decision-making system or a human—is capable of perceiving or inclined to perceive.

Let us situate this framework in the context of labor matching. While it becomes intuitive that job seekers might "perform" impression management tactics to convey a desirable image to potential employers (see Section 3.4.1), it is important to acknowledge that hiring behavior is also performative on the employer side as well. McDonald et al. (2021) illustrate this through their study of recruiters using social media for cybervetting. When recruiters interpreted a job seeker's online behavior as a reflection of their "moral performance," offering insights into their moral traits and values, the recruiters also engaged in a moral act by establishing their own evaluative standards tailored to the social media environment. While the information presented in formal applications may have be deemed unreliable and susceptible to misrepresentation, recruiters expressed confidence in their capacity to evaluate a job seeker's "authentic self" based on their social media presence. The study emphasizes how observers' characteristics influence the perceived outcomes of behavioral visibility and ultimately determine what is "seen" in the end. While some recruiters in the study observed that job seekers' casual fashion choices might not align well with a conservative

corporate environment, it could be that an algorithmic evaluation system could have interpreted and seen entirely different aspects from the same data.

One of the most significant aspects of behavioral visibility is the costeffective access to information about others that social media platforms offer to third-party actors (Ellison & boyd, 2013; Kane et al., 2014; Leonardi & Treem, 2020). This characteristic holds particular importance in contemporary labor matching, granting employer organizations greater opportunities to actively participate in labor-seeking processes. It has been argued that due to increased behavioral visibility, individuals have lost their ability to control the target audience of their actions and behavior on social media platforms. For example, Hatuka and Toch (2017) highlight that technology-enabled visibility is always asymmetrical, as individuals have little possibility to manage their visibility to others. I don't think that digital connectivity has fundamentally altered the asymmetrical balance of visibility between job seekers and employers, as employers and search firms have always collected information about job seekers without the person's knowledge (Hamori, 2010; Marsden & Gorman, 2001; Peltokorpi, 2021). However, the crucial disparity lies in the volume, ease of access and cost-effectiveness associated with obtaining such information through digital mediums (Treem & Leonardi, 2013). In contrast to non-digital networks, where the potential audience of one's actions was limited to interpersonal networks, in the age of digital connectivity, the accessibility of information has influentially broadened the potential audience for one's behavior. While the neopanopticon of digital connectivity provides job seekers with avenues to enhance their visibility to potential employers, the constant feeling of self-exposure to potential employers also burdens them with the fear of missing out on professional opportunities (Sharone, 2017).

### 3.1.2 Social Media and the Collapse of Social Contexts

Another fundamental phenomenon on social media platforms is the context collapse, which has blurred the boundaries between public and private, as well as professional and personal spheres of life. This blurring of boundaries allows employers to access information about potential job candidates beyond the professional context, which can be used to evaluate job candidates' suitability for labor. Social scientists have a long tradition of extensively discussing the distinctions between the public and private spheres of life, which are considered as one of the fundamental categories of modern social life (Goffman, 1959; Habermas, 1989). Davis and Jurgenson (2014, p. 477) define context collapse as a process where "people, information, and norms from one context seep into the bounds of another." In the physical realm, the distinction between public and private spaces was clear-cut: the home provided a haven of spatial privacy and invisibility, offering a contrast to its counterpart, the public workplace, depicted as a domain of interaction and exposure to others (Ford, 2011). In the era of digital connectivity, however, these lines have become blurred and intertwined with the emergence of new distinctions following the lines between online and offline spheres of life. Ford (2011) contends that technology-mediated communication has blurred the division between private and public spheres to the point that dualism should be considered more of a continuum rather than a distinct category. At one end of this continuum lies the private domain, where access to information, or space, is more governed by the individual to whom it pertains. Conversely, at the public end of the spectrum, access to information or space is more open and less controlled by the individual it pertains to, instead being more controlled by other actors, such as platform providers for example.

Context collapses stem from both intentional and unintentional factors. Intentional context collapses occur when individuals deliberately mix and bring various social contexts together (Davis & Jurgenson, 2014). On social media platforms, such actions can be motivated by individuals' aspirations for increased visibility (Leonardi & Treem, 2020, p. 1609). These motives prompt individuals and organizations to intentionally showcase specific aspects of their platform behavior to potential audiences. Ollier-Malaterre et al. (2013) separated employees into categories based on their motivations and behaviors to practice boundary work between professional and personal identities on social media platforms. Employees motivated by self-verification willingly integrated their professional and personal identities by engaging in open boundary behavior, which entailed choosing open privacy settings and disclosing information about their lives without censorship. Those wanting to uphold certain boundaries between public and private spheres participated in boundary work by either managing their audience or content. An inherent challenge of deliberate boundary work is that while employees can influence their audience via privacy settings and networking behavior, the actual reach of content tends to remain elusive. Therefore, deliberate boundary work is consistently conducted within a context of uncertainty, necessitating users to rely on conceptualizations of potential audiences (Litt & Hargittai, 2016; Marwick & boyd, 2011).

Unintentional context collapses occur when contexts collide without the actor's deliberate effort and, at times, without their awareness (Davis & Jurgenson, 2014). Such unintentional collapses are prone to occur on social media platforms, where individuals' online self-portrayals are shaped not just by their own behavior but also by the actions of others within the network and the platform's structural dynamics (Ellison & boyd, 2013; Kane et al., 2014). According to Marwick and boyd (2014), this multiplicity of factors entails that privacy on social media cannot solely be controlled by individuals as, instead, it is influenced by a combination of audience, technical features, and social norms. Some authors have specifically highlighted how the platform's technical properties shape the content and usage of these platforms, thus facilitating context collapse within and across platforms (Davis & Jurgenson, 2014; Papacharissi, 2011; Van Dijck, 2013). Costa (2018) offers an intriguing critique of this notion, proposing that context collapse predominantly stems from sociocultural usage patterns rather than the platform's technical features. According to Costa's study, users can effectively manage their multiple online identities through various usage patterns, such as concurrently managing multiple profiles within the platform. However, normative pressure exists to maintain consistent online identities within and across platforms, particularly within the Anglo-American cultural context, contributing to context collapse. Taken together, these studies endorse the idea that the phenomena occurring in the digital sphere are not merely social or technical but fundamentally sociotechnical.

# 3.2 Comparing Interpersonal and Platform-Mediated Interaction

Having outlined the fundamental concepts stemming from the characteristics of social media platforms, I now focus on comparing these technology-mediated digital mediums with non-digital interpersonal mediums. The following is not an exhaustive comparison of all the differences between digital and non-digital mediums but rather a focused examination of the characteristics that affect the information flow within both interpersonal and social media networks, highlighting the qualitative differences in professionally relevant information flow transmitted through these mediums.

Arguably, the most apparent distinction between face-to-face and platform-mediated interaction arises from the spatial-temporal structure of the interaction. While face-to-face interaction is inherently bound to co-presence, platform-mediated interactions transcend spatial and temporal limitations, allowing communication across extended distances and timeframes (Thompson, 2005, 2020). As face-to-face interactions are always locked into a specific time and space, accessing relevant information through informal connections hinges on being in the "right place at the right time" (McDonald, 2010). In the digital sphere, the serendipitous nature of information acquisition is less inherent, as communication persists over time and is not necessarily confined to specific one-to-one interactions (Hampton, 2016).

In the digital sphere, without spatial and temporal constraints, job seekers can be constantly visible to potential employers. When job seekers share information about themselves on social media or similar digital platforms, this information remains accessible through time and space, offering a lasting and widespread medium of passive exposure (Nikolaou, 2014). A significant downside of the absence of informational, structural, or temporal boundaries is that the abundance of constantly available information can overwhelm people's cognitive capabilities (Azzopardi, 2021). While the amount of information in face-to-face interactions is naturally mediated by spatial-temporal constraints, in the digital sphere, it becomes significantly more challenging to distinguish valuable information from the vast amount of available data (Stohl et al., 2016).

Another characteristic of face-to-face interaction is its dialogical nature. Interpersonal exchanges are typically mutual, one-to-one interactions between individuals, where one person communicates with other(s), enabling the recipients to respond, thus fostering an ongoing dialog (Thompson, 2005). While platform-mediated communication can also be dialogical, it tends to be more open-ended because it lacks the degree of reciprocity and interpersonal

specificity found in face-to-face interaction (Thompson, 2020). This is especially the case with social media platforms, where the interactions tend to be one-tomany exchanges instead of one-to-one exchanges (Litt & Hargittai, 2016). For example, while the micro-blogging site X (formerly known as Twitter) employs a referral-based interface that actively encourages dialogical communication, neither technical prerequisites nor social expectations exist for reciprocal engagement. Furthermore, the platform's networking functionalities do not necessitate reciprocal connectivity, resulting in asymmetrical networks within the platform. As a result, defining the reach and reciprocity of interaction becomes particularly challenging (Marwick & boyd, 2011). Utz and Breuer (2016) suggest that compared to interpersonal interactions, social media users typically expect prompt feedback to their queries and posts, which is why interactions on social media platforms rarely yield information benefits after a certain period has passed. Sharone (2017, p. 24) points out how the absence of reciprocity introduces new vulnerabilities for job seekers in the platform-mediated labor market; while the dialogical nature of in-person conversations allows individuals to tailor the amount and type of information shared based on factors such as audience, context, and established trust, platform-mediated interactions lack this contextual customization and reciprocity.

As an outcome of the spatial-temporal proximity and the dialogical nature of the interaction, face-to-face interactions transcend mere words as they are complemented by gestures, facial expressions, and intonations (Thompson, 2005, p. 33). In other words, interpersonal interactions are characterized by a multitude of symbolic cues that enrich the communication and information flow between participants. While some technological mediums, such as video conferencing platforms, provide avenues for conveying similar cues present in face-to-face interaction (see Sun et al., 2022), technological mediums tend to narrow the range of symbolic cues that can be expressed through a medium (Thompson, 2020).

Studies comparing professional interactions in non-digital and digital settings indicate that interpersonal and digital mediums facilitate employees visible to others differently. For example, Richardson and Kelliher (2015) found that remote workers felt compelled to maintain non-digital interactions with colleagues and clients as they feared that relying solely on digital interaction rendered them "invisible," thus potentially limiting their future career opportunities. Namatovu and Kanjo (2019) made a similar point by concluding that workers' visibility to supervisors and other actors declined as health organizations' interactions transitioned toward technological spaces. It has been suggested that as technological mediums restrict the variety of symbolic cues individuals can use to present themselves in digital environments, observers are forced to rely on fewer cues (Leonardi & Treem, 2020; Thompson, 2020). Consequently, this elevates the importance of professional impression management, as each signal carries heightened significance.

## 3.3 Interpersonal Ties as Conduits of Hard-to-Reach Information

The context collapse on social media platforms gives employers access to the private aspects of a job candidate's non-professional life. However, the available information can still be considered public, as numerous individuals can access it. Conversely, interpersonal ties motivate individuals to share private resources and information not intended for widespread access or visibility. This type of **private information** (Saloner, 1985; Uzzi, 1999), flows particularly between socially embedded ties, which come with their distinct array of rewards and punishments (Granovetter, 2005). The pre-existing social attachments predispose individuals to share private information. In contrast, arm's length ties—network connections characterized by sporadic interactions with no expectation of future prolonged interaction—facilitate access to public information, which distribution is less restricted and thus offers less strategic advantage. Private information holds particular value in labor matching, as it conveys details about actors' expertise and dependencies, thus enhancing the matching process (Uzzi, 1999, p. 483).

It is evident how this kind of information is valuable for both employers and job seekers. Marsden and Gorman (2001) argue that interpersonal ties stand out among other recruitment mediums because they offer distinctive insights into job candidates' characteristics and competences. These insights may include information about a candidate's past job performance and context-specific assessments regarding their potential performance in the given position (Fernandez & Weinberg, 1997). Pallais and Sands (2016) contend that while interviews and job tests provide insights into candidates' characteristics that are difficult to discern from résumés, referrals can offer similar insights more costeffectively. Additionally, interpersonal ties can provide valuable details about the candidate's employment alternatives and the likelihood of them accepting a prospective offer (Marsden & Gorman, 2001, p. 107). This type of private information can be utilized strategically for predatory hiring practices (see Kim, 2014). In these recruitment situations, candidates can also use their social networks to gain information about the potential employer and assess their suitability for the offered position, thus enhancing the match's success (Saks, 1994).

Empirical studies demonstrate that network-mediated labor matching often results in successful matches. Burks et al. (2015) analyzed the data from nine organizations across three distinct industries. They concluded that referred applicants are more likely to accept job offers and less likely to quit their jobs when compared to non-referred applicants, despite both groups having similar skill characteristics. While referred workers generally match the productivity of non-referred counterparts across different metrics, a detailed examination showed that referred workers demonstrate lower accident rates in specific sectors, such as trucking. Dustmann et al. (2016) compared how employees who were recruited based on referrals of current employees performed compared to those

recruited through other mediums and found that referred individuals earned higher wages and exhibited less inclination to leave the firm.

Making definitive causal claims about the mechanisms behind the positive outcomes in network-mediated labor matching is difficult. One suggested advantage arises from the social incentives, which encourage collective pro-social behavior and foster **trust** between interpersonal ties (Luhmann, 2017; Ruuskanen, 2003; Schilke et al., 2021). Commenting on the matter, Granovetter (2005, p. 34) argues the following:

Collective action that depends on overcoming free-rider problems is more likely in groups whose social network is dense and cohesive since actors in such networks typically internalize norms that discourage free-riding and emphasize trust. Note that all else equal, larger groups will have lower network density because people have cognitive, emotional, spatial, and temporal limits on how many social ties they can sustain. Thus, the larger the group, the lower its ability to crystallize and enforce norms, including those against free riding.

At the core of Granovetter's argument is the notion that "denser" interpersonal networks amplify both the rewards and consequences they offer, prompting individuals to act in a trustworthy manner even when it goes against their personal interests. In a recruiting context, an employer might assume these social incentives to work against them, as employees would be inclined to recommend their close acquaintances, such as relatives and friends, regardless of their qualifications. Studies suggest the opposite, as recommenders' reputational concerns can outweigh the "social allegiances" toward close interpersonal ties. Smith's (2005) study of low-income African Americans showed that job contacts refrained from assisting their job-seeking ties even in situations where professionally relevant information was available and they could have influenced the hiring outcomes. It seems that employers can depend on recommendations from trusted social connections and view the recommended job seekers as effectively pre-screened, as the potential consequences of compromising trust with inaccurate recommendations can harm one's reputation. In the digital sphere, platform providers utilize these reputational concerns as a cornerstone for various reputation and feedback systems (Hendrikx et al., 2015; Zervas et al., 2021).

Another suggested benefit of utilizing interpersonal ties for recruitment purposes is that employers can evaluate recommended job candidates by evaluating the characteristics and performance of the recommender. This idea stems from the **homophily** bias, which refers to an individual's tendency to associate and bond with others who are similar to themselves in certain characteristics, such as age, gender, ethnicity, beliefs, education level, or socioeconomic status (Kossinets & Watts, 2009; McPherson et al., 2001; Mouw, 2006). Building on the fundamental concept of homophily—that people are more likely to form social connections with others who share similar traits—it has been suggested that people's characteristics and abilities tend to be interconnected within networks, enabling employers to gather information about prospective workers' productivity by observing the characteristics of their social connections (Fernandez & Galperin, 2014; Montgomery, 1991). There is support for the

homophily argument: for example, A study by Hensvik and Skans (2016) showed that high-performing workers were likely to recommend other high performers.

While homophily can positively influence the evaluation of job candidates, research has also highlighted the negative consequences of network inbreeding, such as the gendered segregation of jobs (Fernandez & Sosa, 2005). Studies also demonstrate that network inbreeding hinders immigrant workers' entry into foreign labor markets. Ahmad (2015) argues that while immigrant workers' country-of-origin-dominated networks provide opportunities and resources for integration, they also contribute to immigrants' low occupational attainment in the foreign labor market. This notion is backed up by Kracke and Klug (2021), who found that due to homogenous networks, migrants tend to land jobs that fail to meet their qualifications. These results further imply that from the perspective of job seekers, employers' use of social networks for hiring purposes is a double-edged sword (see Sharone, 2017). If all else is equal, employers tend to recruit candidates with a social link to the employer (Brown et al., 2016; Burks et al., 2015; Hensvik & Skans, 2016). If a job candidate lacks social connections, they may fall behind those who have them. As Granovetter (2005, pp. 36-37) eloquently states: "Because pre-existing social networks are unevenly distributed across individuals, whatever social processes led to these networks will create an uneven playing field in the labor market without any actor necessarily having intended to do so."

# 3.4 Social Ties in Job Attainment: The Importance of Context

Numerous studies have shown that social ties provide job seekers with access to information about job opportunities that are not typically advertised through conventional channels such as job boards or recruitment agencies (Calvo-Armengol & Jackson, 2004; Lin et al., 1981; Montgomery, 1991). Building on Granovetter's foundational research on social ties (see 1974, 1995), <sup>10</sup> the following research has rigorously tested how the type of social tie affects the flow of professional information. Later studies have provided both supporting (Brown & Konrad, 2001; Levin & Cross, 2004; Yakubovich, 2005) and contrasting evidence for the strength of the weak ties argument (Godechot, 2014; Kim & Fernandez, 2017). Contextual factors appear to influence how various social ties transmit information within specific sociocultural contexts. Sharone's (2014) cross-country analysis showed that American job seekers tend to rely more on their weak ties, whereas Israeli job seekers tend to avoid engaging their weak ties, even when there is a deficit of strong ties. On the other hand, Bian (1997) and

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<sup>&</sup>lt;sup>10</sup> The strength of weak ties argument suggests that weak ties—connections with acquaintances or individuals outside of one's close social circle—serve as bridges between different social groups or networks, providing access to novel information that is not readily available within one's immediate social circle, typically constituting of strong ties, i.e. close friends, family and colleagues (Granovetter, 1973).

Obukhova (2012) found that within the Chinese sociocultural context, strong ties tend to yield more favorable outcomes in job search.

Considering the impact of contextual factors on how individuals acquire information through different social ties, as well as researcher's assertions that social interactions function differently in the digital sphere (see Turkle, 2011; Van Dijck, 2013), one is prompted to ask: do different types of social ties yield varied informational outcomes in the digital sphere? In their review of the strength of weak ties argument on LinkedIn, Rajkumar et al. (2022) found a non-linear relationship between tie strength and job mobility. The authors found that moderately weak ties, determined by mutual connections, and the weakest ties, based on interaction intensity, facilitated the highest levels of job mobility. However, weaker ties only enhanced job transmission up to a certain threshold, beyond which the benefits of tie weakness diminished. A study by Utz (2016) suggests that the informational differences between social ties differ depending on the social media platform used. In the study, strong social ties mattered most on Facebook, whereas on then-Twitter, neither type of social ties yielded informational benefits. On LinkedIn, however, both types of social ties positively correlated with the reported informational benefits. Despite the varying results based on different platforms, both the first study by Utz (2016) and the longitudinal follow-up study (Utz & Breuer, 2016) concluded that strategic networking—that is, networking with individuals who might be helpful to them—increases the likelihood of acquiring professionally relevant information.

These studies suggest that **professional social media platforms**, such as LinkedIn, are most valuable for both job seekers and recruiters. This is understandable given that professional social media platform interfaces are designed for professional networking and impression management (Van Dijck, 2013). Roulin and Fernandez (2022) highlight that individuals act differently on personal social media platforms compared to professional social media platforms (see Ollier-Malaterre et al., 2013). Additionally, personally oriented social media platforms are designed to foster personal interactions among friends and family, while professional social media platforms are designed for professional networking and conveying information that can aid personnel decisions (Roulin & Fernandez, 2022). Therefore, one should always consider each platform's specific design and intent when evaluating how social connections affect labor matching.

#### 3.4.1 Social Media Affordances

The capabilities of social media-enabled communication technologies are often conceptualized through the lens of **affordances** (see Bucher & Helmond, 2017; Ronzhyn et al., 2023). The affordance perspective seeks to offer insights into the outcomes that emerge when the action potential of technologies is merged with intentional human agency. Majchrzak et al. (2013, p. 39) define technology affordances as "the mutuality of actor intentions and technology capabilities that provide the potential for a particular action." The affordance perspective emphasizes that the potential of specific technologies emerges only when they are actualized

through human use; thus, an affordance is not simply a technical property of technology but rather a combination of human action and technological capability (Faraj & Bijan, 2012). Leonardi (2011, p. 148) underscores the interplay between human and non-human entities by noting that users of technological systems often perform actions in response to situations where technologies have "performed" actions without human intervention or even direct control. While affordance theory has faced criticism for its purported failure to adequately consider how material technologies generate and magnify power relations (see Hansen & Flyverbom, 2015), it enables researchers to explore the nuanced interaction between material and social factors in the digital realm.

The literature on the affordances of social media platforms has highlighted several distinctions that separate social media platforms from other forms of communication. A notable feature of platform-mediated communication is the persistence of communication (boyd, 2010; Ellison & Vitak, 2015; Hampton, 2016). When people post content and interact with people on social media platforms, these acts leave permanent digital traces that can be tracked through other users, potentially leading to consequences long after their initial presentation (Treem & Leonardi, 2013). In contrast, as face-to-face interactions are momentary in nature (Thompson, 2005, 2020), the representations of the social interaction are stored solely in the episodic memory of the respondent(s) (Mano et al., 2011). Enabled by the persistence of digital data, employers can accumulate information about potential job candidates dating back several years (Berkelaar, 2014). Although the persistence of data enables job seekers to streamline their professional impression management by avoiding the need for constant reproduction of content, it also causes privacy concerns and potentially conveys negative impressions to potential employers (Sun et al., 2021). These concerns are not unjustified, as research shows that recruiters tend to conclude comprehensive assessments from few details on candidates' social media presences (McDonald et al., 2021). While the persistence of digital data ensures that interactions on social media platforms endure over time, these representations are not entirely immutable: the editability affordance refers to users' capacity to create or modify content before or after communication (Ellison & Vitak, 2015; Treem & Leonardi, 2013). This editability allows users to tailor their content on social media platforms, though only to a certain extent.

As described earlier (see Section 3.1.1), the **visibility** provided by social media platforms allows users to see and be seen with little effort (Ellison & Vitak, 2015; Leonardi & Treem, 2020; Treem & Leonardi, 2013). In the context of labor matching, the implications of visibility affordance are straightforward: job seekers can make information visible or invisible (to some extent), and this information will be visible and accessible to employers (Berkelaar, 2017). While the increased behavioral visibility can be considered as a foundational root affordance that permeates all interactions on social media platforms (Treem et al., 2020), individual factors affect the extent of users' visibility on the platform. For

example, Sun et al. (2021) concluded that on enterprise social media platforms, <sup>11</sup> the size of an online network correlates with employee visibility. Visibility is thus intertwined with the affordance of **association**, which refers to social media platforms' capability to connect individuals with other individuals or content (Sun et al., 2021; Treem & Leonardi, 2013). The affordance of association allows users to connect with users and content and make these connections visible to others (boyd & Ellison, 2007, p. 211). Hedenus et al. (2021) found that recruiters assess job candidates' social capital by analyzing the size and composition of the candidates' online networks. This suggests that while online networks provide environments for job seekers to engage in professional impression management, the users' online associations themselves also act as signals of self-presentation.

### 3.4.2 Professional Impression Management

The affordances of social media platforms enable job seekers to cost-efficiently enhance their visibility to potential employers, making these platforms highly suitable for impression management (see Roulin & Levashina, 2016). Leary and Kowalski (1990, p. 34) define impression management as "the process by which individuals attempt to control the impressions others form of them." A systematic literature review by Al-Shatti and Ohana (2021) concluded that the development of social media platforms has transformed impression management in such ways that existing research still lacks a complete understanding of the critical differences between face-to-face and online impression management. Nonetheless, studies indicate that effective impression management, regardless of the context, can produce favorable outcomes regarding the promotion of professional opportunities (Chen & Lin, 2014; Harrison & Budworth, 2015; Higgins et al., 2003; Higgins & Judge, 2004). On social media platforms, a notable drawback is the limited range of symbolic cues, which restricts users' ability to convey information about themselves (Leonardi & Treem, 2020, p. 1609). This limitation can adversely affect job prospects, as recruiters often form strong conclusions based on minor details (McDonald et al., 2021). Thus, although social media offers cost-effective means for professional impression management, the nature of digital communication significantly raises the stakes of this practice.

On social media platforms, the design choices behind the user interface define the limits within which job seekers can present their professional image to employers (Van Dijck, 2013). Ajunwa and Greene (2019) highlight that different platforms provide unique features that shape interactions between job seekers and employers. As a result, different platforms can create specific ways to manage professional impressions on various platforms (see also Roulin & Fernandez, 2022). On professional social media platforms, platform-specific features aim to serve both users interested in potential job opportunities and

<sup>&</sup>lt;sup>11</sup> An enterprise social network is a private, internal platform that businesses use to facilitate communication among team members across the company (see Yee et al., 2021). Notable examples include Microsoft Teams, Slack, and Yammer.

users who utilize these platforms for searching potential job candidates (see Gillespie, 2010; Milano et al., 2021). Sharone (2017) points out several examples where these interests can clash and produce tensions on LinkedIn. While some users are concerned about potential implications to privacy and biased recruiting practices, the platform compels users to upload a profile picture, as those profiles without a photo are disadvantaged by the platform's search algorithms. Additionally, the platform's one-profile policy hinders users from highlighting various skills through multiple profiles (see Costa, 2018). Studies suggest that users' concerns regarding privacy and bias are not unfounded. For example, Krings et al. (2021) found that while LinkedIn users of all ages were equally proficient in promoting their profile and professional skills on the platform, older job seekers received fewer job offers. This discrepancy was attributed to age discrimination stemming from older-looking profile pictures.

Deception has been a common impression management tactic in the evaluation situations (see Levashina & Campion, 2007). The most extreme tactics include straight-out lying during the recruitment process. Weiss and Feldman (2006) found that job candidates lie both in their applications and during the interview phase to shape their professional image for recruiters. While one might expect similar deceptive behavior on social media platforms, research suggests that this is not the case. Sievers et al. (2015) found that users generally present themselves authentically on the professional social media platform XING, evidenced by a significant, albeit moderate, correlation between users' self-descriptions and observer ratings. Ellison and boyd (2013) observe that the social context on social media platforms encourages individuals to present accurate information about themselves, thereby enhancing the reliability of the shared data. In practice, the fear of scrutiny from one's social connections motivates users to post truthful information about themselves.

# 4 FROM NETWORKING TOWARDS MATCHMAK-ING: THE PROLIFERATION OF ALGORITHMIC CURATION MECHANISMS

"The medium is the message."

- Marshall McLuhan, philosopher and communication theorist

In his seminal book *Understanding Media: The Extensions of Man*, McLuhan (1966) provides commentary on how different forms of media shape human perception, communication, and culture. He argues that the inherent characteristics of each medium, including television, radio, and print, shape how information is conveyed and perceived. For instance, the rise of television revolutionized the consumption of news and entertainment, changing patterns of communication and social interaction. McLuhan's famous quote, "The medium is the message," suggests that we should pay attention not only to the content of the communication but also to the medium itself, as it shapes our understanding and experience of the information received. Despite the justified criticism of McLuhan's deterministic concepts, 12 it is genuinely remarkable how his seminal ideas from sixty years ago still resonate in today's technology-mediated society. I argue that the focus on digital mediation technologies is more relevant than ever.

Thus far, I have discussed how social media platforms have influenced people's communication patterns and highlighted the differences in information flow between non-digital and social media networks. In this chapter, I move on to the latest and arguably one of the most influential developments affecting the matching between supply and demand of labor: the emergence of algorithmic curation systems. Gorwa et al. (2020) note that contemporary "mega-platforms"

<sup>&</sup>lt;sup>12</sup> Cohen (2000) critiques McLuhan for technological determinism, arguing that societal development shapes technology more than technology shapes society. Despite the criticism, Cohen commends McLuhan for highlighting the social consequences of mediating technologies.

differ significantly from their online community predecessors, as they have shifted from traditional community moderation practices to automated algorithmic curation systems. Public discussion about algorithmic systems has intensified recently with the rapid advancement of AI-powered tools. As these technologies increasingly permeate our society, concerns about their negative impacts on the labor market and broader society have grown more pressing, especially since the decision-making processes behind these systems often remain opaque to both the public and the scientific community.

In this chapter, I focus on how algorithmic curation mechanisms affect labor matching on social media platforms. Adopting a McLuhanian perspective, I examine how the characteristics of these platforms, such as the level of algorithmic curation and interface design, influence the matching between job candidates and employers (Andersson Schwarz, 2017; Gillespie, 2010; González-Bailón & Lelkes, 2023; Royakkers et al., 2018). While recognizing the prominent and increasing influence of gig economy platforms in the contemporary labor market (see Wood & Lehdonvirta, 2022), my analysis primarily focuses on social media platforms.

# 4.1 Who Sees and What? - Algorithmic Curation on Social Media Platforms

The terminology related to algorithms and artificial intelligence is notoriously ambiguous, both in public discourse and academia. Shin and Park (2019, p. 279) define algorithms as "socio-technical systems" that possess the following attributes: 1) managing the interaction between people and technology; 2) comprising one or more technological algorithms, services, platforms, user knowledge and social experience, and interaction with users; and 3) generated by or related to a system adopted and used by social users in societies. Focusing on algorithmic curation, Gorwa et al. (2020) define algorithmic moderation systems as "systems that classify user-generated content based on either matching or prediction, leading to a decision and governance outcome." Although algorithmic curation systems are typically linked with managing content such as news and other media content, they are also employed in so-called social matching systems (Terveen & McDonald, 2005). These systems aim to enhance social interaction by pairing potentially compatible individuals using user modeling and predictive analytics (Olshannikova et al., 2022).

(Leonardi & Treem, 2020, p. 1611) argue that algorithmic curation systems facilitate behavioral visibility in the digital sphere by performing "a disciplining functioning by directing our limited attention and potentially suppressing other social

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<sup>&</sup>lt;sup>13</sup> For example, Hunkenschroer and Luetge (2022, p. 977) define AI recruiting broadly as "any procedure that makes use of AI for the purposes of assisting organizations during the recruitment and selection of job candidates".

activity."<sup>14</sup> These systems facilitate visibility by sorting, ranking, recommending, and aggregating vast amounts of diverse data to provide a comprehensive picture, offering insights into the behavior of others (see Bolin & Andersson Schwarz, 2015). The dominant techno-optimistic view holds that algorithms transform data into a more understandable and valid format for end-users (Bhareti et al., 2020). Critical insights into algorithmic curation mechanisms have underscored how these systems influence what content is considered relevant and subsequently displayed to users. Gillespie (2014) emphasizes that algorithmic systems not only aid in information retrieval but also shape users' understanding of available knowledge and its accessibility. Consequently, the platforms' design choices and algorithmic systems directly influence the visibility of individual users and content (Thorson et al., 2021).

Proponents of algorithms often cite their capabilities through the perspective of mechanical objectivity—a belief that technological systems can produce outcomes that surpass the limitations posed by human subjectivity (see Carlson, 2019; Daston & Gallison, 2007). For instance, Faliagka et al. (2014) found that their proposed applicant ranking system, which extracted personality data from LinkedIn profiles, yielded more consistent results when compared to human recruiters. Public perception of algorithmic evaluation seems to align with this view: Pethig and Kroenung (2023) found that women, wary of potential gender-based discrimination in recruitment, prefer having their job prospects assessed by an algorithm rather than a male evaluator.

Other studies have suggested that algorithmic systems can unintentionally introduce systemic bias into the evaluation process (Bolin & Andersson Schwarz, 2015; Bozdag, 2013; Cheng & Hackett, 2021). A significant concern is that if these systems act as "societal mirrors" - reflecting and replicating human behaviors and decisions — they have the potential not only to reproduce but also to amplify existing biases on a larger scale. Suresh and Guttag (2021) refer to these undesirable consequences as historical biases, which emerge when machine learning algorithms are taught to mimic the world "as it is or was," potentially resulting in models that reproduce harmful occurrences, such as reinforcing existing negative stereotypes. 15 Kassir et al. (2022) note that while machine learning technologies may introduce systematic bias and nuanced discrimination in employment selection procedures, traditional evaluation methods faced comparable issues well before the advent of AI in recruitment. While the root causes of bias and discrimination might not stem directly from the emerging technologies themselves, their potential to amplify unintended adverse outcomes is evident (see Tsamados et al., 2022).

<sup>&</sup>lt;sup>14</sup> According to Leonardi and Treem (2020), the three mechanisms through which the behavior of people, collectives, technological devices, or nature becomes visible to third parties are 1) individuals and organizations self-presentation motives, 2) aggregate quantification of behavioral data, and 3) algorithmic ordering of data.

<sup>&</sup>lt;sup>15</sup> In addition to historical bias, Suresh and Guttag (2021) identify six other sources of bias, including representation, measurement, learning, evaluation, aggregation, and deployment bias.

### 4.1.1 Platform Power and the Question of Transparency

While implementing algorithmic technologies can produce unintended outcomes (Suresh & Guttag, 2021), platform scholars have also raised critical questions about the intentions and ambitions behind the design and deployment of these technologies. It has been suggested that platform providers' financial incentives influence the development and implementation of algorithmic systems. Discussing how platform providers' monetary incentives might affect their commitment to fostering pro-social values such as social cohesion, González-Bailón and Lelkes (2023, p. 174) argue the following:

Platforms are, first and foremost, concerned with maximizing user engagement in order to generate revenue (primarily through advertising). Social cohesion and user engagement are sometimes at odds—outrage and misinformation may increase the amount of time users spend on a platform but negatively impact social cohesion. In this way, social cohesion can be considered an externality, akin to car manufacturers and pollution.

As highlighted, advertising is the primary revenue stream for most social media platforms. In this revenue model, the income is derived from the data collected from end-users, and the revenue ultimately comes from the advertisers and not from the users themselves (Van Der Vlist & Helmond, 2021). Professional social media platforms stand out from this norm. For example, LinkedIn, the marketleading professional social media platform in Western countries, generates approximately half of its revenue from its "Talent Solutions" services (Geyik et al., 2018). These services are primarily targeted at employer organizations to help them identify and attract job candidates from the platform's user base. 16 These products utilize the data mined from the platform's users, which the platform has accumulated through its freemium-based business model.<sup>17</sup> As LinkedIn's interface is specifically designed for professional self-promotion, it provides essential demographic and professional information that can be utilized for various matchmaking purposes (Roulin & Fernandez, 2022; Van Dijck, 2013). LinkedIn's revenue model exemplifies how professional social media platforms create a complex ecosystem of stakeholders. In this ecosystem, the end-users potential job candidates – serve as both customers and providers of options for the primary customers-employers who purchase the platform's talent acquisition tools (Gillespie, 2010; Milano et al., 2021).

Regardless of whether a platform's revenue comes from advertisers or other types of customers, financial incentives motivate platform providers to keep their patented innovations confidential. This drive for confidentiality is one of the key factors contributing to the lack of transparency in platforms' decision-making processes. Burrell (2016) identifies three causes that promote **algorithmic opacity**. The first type of opacity arises from companies' intentional efforts to safeguard their patented innovations and sustain a competitive advantage. The second

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<sup>&</sup>lt;sup>16</sup> https://business.linkedin.com/talent-solutions

<sup>&</sup>lt;sup>17</sup> In a freemium-based business model, the platform provider offers basic features and services free of charge, while users must pay additional fees to access advanced "premium" features (Huang, 2016).

source of opacity stems from the specialized and technical complexity of coding and algorithm design, which remains inaccessible to most people. The third source arises from the inherently complex design of algorithms. Burrell notes that algorithmic systems often involve multiple components and are developed by various teams within an organization, which can lead to even the creators lacking a complete understanding of the fundamental workings of the algorithms.

A broadly similar point has been recently made by Langer and König (2023), who identify three reasons for opacity in algorithm-based HRM systems. Systembased opacity arises from the intricate characteristics of algorithm-based HRM systems, often composed of multiple complex systems and subsystems. This complexity renders the algorithmic neural networks opaque, often even to the developers who created them. The second reason, termed "opacity due to illiteracy," stems from a lack of understanding about algorithm-based systems and their foundational mathematical or developmental principles. As individuals working in the HRM sector rarely possess any kind of programming training, they typically lack extensive knowledge about the algorithmic processes behind AIassisted evaluation processes. Despite this, they are increasingly expected to comprehend system outputs and processes, discern when to trust system recommendations, and assess the accuracy of algorithm-based recommendations. The third reason for opacity may be intentional, stemming from the intentions of those involved in the system's creation and deployment. Langer and König suggest that developers might prioritize system performance at the expense of transparency as they want to "protect their intellectual property, keep their competitive advantage, or uphold information asymmetries for exercising control over workers" (p. 3).

Although the issue of opacity seems to extend beyond simply blaming profit-driven platform providers for their reluctance to expose their algorithmic systems to public evaluation, financial motivations undeniably contribute to fostering and maintaining opacity in algorithmic decision-making systems. Whatever the underlying causes for these opaque decision-making conditions are, the outcomes are clear: platform providers hold substantial influence in mediating various societal functions, and it is challenging to evaluate the issues related to accountability, fairness, and privacy, as well as the risks of discrimination and power misuse (Gorwa et al., 2020; Grant et al., 2023; Lepri et al., 2018; Pasquale, 2015; Vaassen, 2022).

# 4.2 Searchability: The Root Affordance of Platform-Mediated Labor Matching

In practice, the distinction between platform-mediated labor matching and network-mediated labor matching lies in the algorithmic search and recommendation systems that facilitate matching between workers and employers based on factors other than network mechanisms. Boyd (2010) was

among the first to shed light on searchability as an affordance, noting how users' capability to conduct searches on social networking sites stands out as one of the fundamental affordances of these sites. Later, Ellison and boyd (2013) further explored the significance of search functions, speculating on how search engine technologies have influenced the evolution of social networking sites and user behavior and self-presentation on these platforms. In the same vein, Kane et al. (2014) coined search and privacy mechanisms as one of the four core features of social media platforms. At the heart of the authors' observations was the recognition that social media platforms' search mechanisms are becoming less dependent on relational networks and are increasingly influenced by algorithmic curation mechanisms, as they (p. 279) commented on how "users can also access content through search mechanisms, such as Google like algorithmic search capabilities. For example, they might search for keywords in LinkedIn profiles to find people with particular skills or experience." While employers' utilization of platform-provided search tools is not a new phenomenon, as indicated by the previous comment, there has been a growing trend among employer organizations in recent years to leverage these tools more extensively in their search for potential job candidates for a broader range of jobs and positions (Berkelaar & Harrison, 2016; Kroll et al., 2021).

Different platforms provide different kinds of search and recommendation systems for their users. Some search and recommendation systems are designed to match users with content, while others are designed to match users with other users (Khalid et al., 2022; Lu et al., 2015; Terveen & McDonald, 2005). Well-known examples of people recommender systems include "people you may know" and "whom to follow" features on platforms such as Instagram and the former Twitter. These systems are designed to facilitate social interactions by matching potentially compatible individuals through user modeling and predictive analytics (see Olshannikova et al., 2022). Due to their focus on the professional context (Van Dijck, 2013), professional social media platforms offer the most refined and specific search and recommendation tools for labor-matching purposes (Roulin & Fernandez, 2022). While end-users often regard these platforms as networking platforms that enable them to reap professional benefits through establishing connections and networking with one another, the platform-provided search and recommendation mechanisms effectively transform them as algorithmic-assisted hiring platforms that generate revenue by utilizing user data for various matchmaking purposes (see Geyik et al., 2018; Ramanath et al., 2018). Motivated by the desire for professional self-presentation (Leonardi & Treem, 2020; Ollier-Malaterre et al., 2013), users of professional social media platforms create information and content about themselves that are particularly useful for labor-matching purposes.

To illustrate the phenomenon more clearly, let us take a practical example from the world's largest professional social media platform, LinkedIn. LinkedIn's matchmaking ecosystem employs user data in its various large-scale search and recommendation systems, which include targeted job advertising, job recommendation systems, and search tools for proactive candidate search (Borisyuk et al., 2016). These search and recommendation systems effectively

turn the entire user base into a database of potential job candidates. The platform's primary product for proactive candidate search is LinkedIn Recruiter, which enables recruiters to conduct candidate searches using various search parameters and obtain candidate recommendations for their job postings. <sup>18</sup> LinkedIn Recruiter's matching process is done by analyzing multiple data points, including the user's profile information and platform behavior, and matching them with the specified search criteria (Geyik et al., 2018; Ramanath et al., 2018).

The boundedness of social media platforms (as discussed in Section 3.1) entails that users of social media platforms can be searched in ways that users might not be fully aware of. Envision a recruiter who is looking for a front-end developer for a client in the tech sector. This recruiter might begin by searching for candidates on LinkedIn, gathering information and thus gaining access to a certain amount of potential job candidates. To expand the pool of potential candidates, the recruiter could then turn to Google search engine to broaden the search beyond the confines of a single platform. Searches on Google could potentially lead the recruiter to job candidates' LinkedIn profiles, giving results similar to those of search tools on other platforms. However, they could also lead to developers' Stack Overflow<sup>19</sup> discussions or GitHub portfolios.<sup>20</sup> Enabled by the cost-effective access to information from third-party actors, one of the antecedents of behavioral visibility (Ellison & boyd, 2013; Kane et al., 2014; Leonardi & Treem, 2020), users' visibility to potential employers becomes asymmetrical, meaning that employers have ample ways of seeing potential candidates, while users themselves have limited means to control their visibility. Hatuka and Toch (2017) argue that the asymmetries of visibility, facilitated by the development of communication and information technologies, also translate into asymmetries of power by controlling what can be seen and by whom.

Although the full extent of users' visibility to others remains elusive to the users themselves (Litt & Hargittai, 2016; Marwick & boyd, 2011), they can manage their searchability, at least to an extent, by employing various privacy protection strategies. A study by Chen and Chen (2015) reported that Facebook users' privacy concerns motivated them to protect their privacy by limiting their profile visibility and moderating their networking behavior on the platform. On the other hand, users of professional social media platforms tend to prefer public privacy settings to increase their visibility to potential employers (Ollier-Malaterre et al., 2013), allowing third-party actors to access user's platform behavior and information with minimal effort. Shin et al. (2022) highlight that users' understanding of algorithmic curation mechanisms plays a crucial role in their ability to assess privacy risks and make informed decisions about the necessary actions of self-disclosure. If the user is unaware of how user data is

<sup>&</sup>lt;sup>18</sup> https://business.linkedin.com/talent-solutions

<sup>&</sup>lt;sup>19</sup> Stack Overflow is a public online platform and community for programmers and developers to ask and answer questions related to programming and software development. (https://stackoverflow.co/).

<sup>&</sup>lt;sup>20</sup> GitHub is a web-based developer platform for hosting, sharing, and collaborating on software development projects. (https://github.com/about).

distributed across various APIs and platform infrastructures, accurately managing one's visibility becomes increasingly difficult.

### 4.2.1 The Dark Side of "Optimized Recommendations"

The research on cybervetting demonstrates that recruiters evaluate various characteristics from user profiles. These characteristics include candidates' potential fit for the job and organization, trustworthiness, amount of social capital, and evaluation of job candidates' "authentic selves" (Chiang & Suen, 2015; Hartwell & Campion, 2020; Hedenus et al., 2021; McDonald et al., 2021). Evidence from various studies shows a degree of correlation between the information found on user profiles and potential job performance and personality traits (Fernandez et al., 2021; Roulin & Levashina, 2019; Van De Ven et al., 2017). These findings suggest that such profiles offer reliable insights into job candidates' personality traits and potential competences. Aguado et al. (2019) reported that LinkedIn profiles provide insights into users' professional experience, non-professional lives, social capital, and interest in updating their knowledge, which can, in turn, predict job candidates' productivity, absenteeism, and potential for professional development. On the contrary, a more recent study by Roulin and Stronach (2022) diverged from earlier findings by concluding that the validity of these assessments is moderate at best, suggesting that organizations should be cautious when relying on LinkedIn for evaluating applicants' traits.

While some studies have shown that LinkedIn assessments can provide valuable information for evaluating job candidates, other studies have cast doubt on cybervetting by highlighting the limited knowledge about the actual validity of these practices. Mönke and Schäpers (2022) point out that research on cybervetting lags behind its practical application and stress the need for further studies to draw more definitive conclusions about the validity and implications of these practices. Likewise, Wilcox et al. (2022) note that cybervetting research is still in its early stages and also point out that while many studies have examined its value and usefulness for employers, these studies have often overlooked the significant concerns regarding discrimination and privacy issues. Kroll et al.'s (2021) study of contemporary recruitment practices concluded that proactive candidate search is susceptible to explicit and implicit discrimination stemming from recruiters' personal biases, explicit discriminatory directives from management, and recruiters' perceptions of the company's ideal candidates. Studies also demonstrate that recruiters' subjective judgments and personal feelings influence cybervetting practices, as these emotions can motivate, limit, and guide their subjective impressions of job seekers, thereby impacting the evaluation process (Hedenus & Backman, 2020; McDonald et al., 2021). These findings suggest that recruiters' use of social media platforms for evaluation is susceptible to various forms of discrimination and bias, highlighting the need for more thorough scrutiny in future studies.

Although research has shown that recruiters' evaluation of candidate profiles is susceptible to potential discrimination and bias, a prominent and understudied source of bias lies in the algorithmic pre-curation processes that occur before human evaluation takes place. Milano et al. (2021) note that algorithmic recommendation systems wield significant influence contemporary online environments, as they shape how users form preferences and manage social interactions by controlling how options are presented and how information is exchanged within the system. On professional social media platforms such as LinkedIn, search and recommendation systems mediate which job seekers are presented to recruiters, influencing who participates in the proactive candidate search process. Figure 2 illustrates the two-step curation process of algorithmic-assisted proactive candidate search. In the first stage, algorithms evaluate and determine which candidates are made visible to recruiters. From this recommended pool of candidates, recruiters as human evaluators further narrow down the talent pool to select candidates who will eventually be contacted and informed about potential job opportunities.

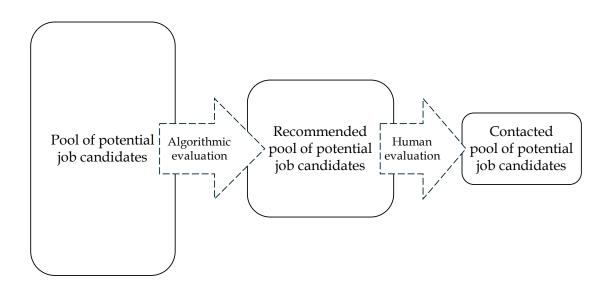


Figure 2. Algorithmic-assisted proactive candidate search.

A clear benefit of these systems is their capacity to alleviate information overload (Schmitt et al., 2018). As Stohl et al. (2016) highlight, without clear informational, structural, or temporal boundaries, valuable information can be rendered opaque, as people's cognitive limits allow them to process only a certain amount of information simultaneously. It has been suggested that the algorithmic recommendation systems of digital platforms can potentially help to mitigate the various cognitive biases that stem from being overloaded by the overwhelming amount of information (see Azzopardi, 2021). In the labor-matching context, a practical, real-life example of information overload occurs when recruiters face an overwhelming number of job applications and must sift through them to

identify the most suitable candidates from less suitable candidates (Marsden & Gorman, 2001, p. 107).

Though pre-curation mechanisms that precede human evaluation have potential benefits, studies show that algorithmic curation can produce undesirable effects. One well-documented issue is the polarizing effect on visibility these systems tend to create on social media platforms. Dujeancourt and Garz (2023) explored how Twitter's shift from a reverse-chronological timeline to algorithmic content curation affected user engagement with news outlets and found that already popular outlets and news topics benefited the most from this transition. Moreover, they discovered that algorithmic curation systems prioritized sensationalist news content over high-quality journalism content. Bandy and Diakopoulos (2021) identified a similar polarizing effect in their analysis of Facebook's News Feed algorithm, which directed users toward various news sources during the 2020 US election period. They discovered that the algorithm tended to boost the visibility of lower-quality news sites while diminishing the visibility of both high-quality and local publishers. Ali et al. (2019) found that Facebook's algorithm disproportionately advertised specific job openings to certain demographics while sidelining others. This uneven distribution of exposure resulted from algorithmic predictions of relevance, which assumed that certain demographics were more suitable for specific job openings.

Studies focusing on people recommender systems have concluded that these systems tend to favor individuals with more extensive online networks and greater social capital. Su et al. (2016) examined how the introduction of Twitter's "Who to follow" feature in 2010 affected users' network structures. Their findings indicated that this feature particularly benefited users with already extensive networks. This outcome resulted from several interconnected factors. The primary factor is that people's recommendation systems typically use friend-offriend recommendation algorithms, which suggest connections to other users based on their social proximity. As a result, the likelihood of being recommended to others increases with network size, leading to a pattern where well-connected individuals experience disproportionate growth in their networks. This tendency is further amplified as users are more inclined to connect with those already popular, exacerbating the "rich-get-richer" effect among individuals with extensive networks. Olshannikova et al. (2022) note that these dynamics in people recommendation systems produce triadic closure, which amplifies social polarization.<sup>21</sup> The authors emphasize the importance of incorporating strategies to enhance diversity in the design of these systems to mitigate such adverse impacts.

Although research specifically addressing algorithmic search and recommendation systems in the context of labor matching is limited, existing studies have highlighted social media platforms' polarizing impact on labor

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<sup>&</sup>lt;sup>21</sup> Triadic closure is a concept in social network theory that describes the tendency for two people who share a mutual friend to become friends themselves, thereby closing the triangle or "triad" among the three individuals. This process often reinforces existing social ties and similarities, leading to more homogeneous groups (Opsahl, 2013).

market outcomes. In their qualitative study of recruiters' online recruitment strategies, McDonald et al. (2019) conclude that internet search tools produce uneven benefits for different types of job candidates. A significant dividing line in the workforce exists between low-level general-skill workers and high-skill workers. When seeking candidates for lower-level positions, recruiters primarily use online job boards, where numerous candidates compete for visibility in a "hyper-competitive and impersonal" environment. For high-skill positions, recruiters tend to use more social media platforms, such as LinkedIn, to actively identify and search for job candidates from the talent pool of currently employed passive job candidates. According to the authors, employers' greater knowledge of potential job candidates - facilitated by easy access to information through LinkedIn and online search tools—has led to a situation where active job searching is viewed as a stigmatizing signal of suboptimal quality (see also Krug et al., 2019). Similarly, Sharone (2017) draws attention to the polarizing impact of social media platforms by noting that employers' use of social media platforms is a "double-edged sword" for job seekers. On the one hand, increased visibility to potential employers can enhance job seekers' exposure to professional opportunities. On the other hand, platform-mediated labor matching fosters an evaluation logic where access to labor market opportunities is based more on the ability to digitally signal competence rather than on actual merits. Similarly, McDonald et al. (2019, p. 96) acknowledge the polarizing effect of new mediation mechanisms, concluding the following:

Internet technologies have thereby accelerated the creation of "winner-take-all" labor markets in which payoffs are determined by rankings, top participants earn the bulk of the rewards, and small differences in characteristics tend to be associated with large differences in outcomes.

Collectively, these studies suggest that the mechanisms behind algorithmic curation systems tend to produce labor-matching processes where 1) minor digital signals can significantly impact labor market outcomes, 2) access to professional opportunities is dependent on factors other than actual credits of merit, and 3) the outcomes of these processes are unevenly distributed across the labor force. The research exploring the impact of algorithmic search and recommendation systems on labor market outcomes is still in the early phases, indicating a need for further study to fully understand the benefits and limitations of these systems. The literature review highlights critical concerns, including whether these systems might inaccurately assess a candidate's suitability for a position, possibly overlooking valuable characteristics and elements that are not easily quantifiable.

Additionally, concerns have been raised about the potential for these systems to homogenize candidate pools or worsen existing job market disparities. Techno-optimist authors argue that when guided by the right set of fundamental ethical principles, algorithmic systems can be harnessed as a force for good to help overcome the limitations of human biases (Taddeo & Floridi, 2018). While maintaining a skeptical stance on pure techno-solutionism, I agree with techno-optimists that it is equally important to explore how these systems could mitigate

the negative impacts of human cognitive limitations and networking behavior tendencies that tend to produce bias and lack of diversity in the recruitment process (see Azzopardi, 2021; Olshannikova et al., 2022).

# 4.3 Algorithmic Recruiting Systems and Human Autonomy

As discussed, much of the current literature on algorithmic curation systems in HRM has focused on their efficiency or potential to produce and amplify bias and discrimination in the recruitment process. Some argue that algorithms can help alleviate inefficient matching and biases inherent in human decision-making (Faliagka et al., 2014; Pan et al., 2022), while contrasting research suggests that these systems might perpetuate and even amplify underlying biases and unjust hiring practices on a broader scale (Köchling & Wehner, 2020; Tilmes, 2022). In their systematic literature review of AI-assisted applications in various HRM processes, Budhwar et al. (2022) conclude that although the research is limited, AI-assisted technologies seem to provide both opportunities and challenges for various HRM functions. In addition, the authors emphasize the need for having "sound principles and guidelines on analyzing how effectively AI can augment humans and the possible impacts of these configurations" (p. 1087).

In a similar vein, I argue that there is a notable research gap regarding the impact of algorithmic systems on recruiter **autonomy**, commonly understood as individuals' capacity to align one's choices with self-determined values and goals (Laitinen & Sahlgren, 2021; Savolainen & Ruckenstein, 2022; Tsamados et al., 2022). I contend that recruiters' ability to make autonomous decisions is intricately tied to their ability to deliver fair and responsible recruitment decisions. It is valid to ask to what extent can recruiters, or any other users of algorithmic-assisted evaluation systems, be held responsible for their decisions, if their decisions are not their own and are not able to be assessed on the basis of being algorithmic-assisted decisions?

Prunkl (2022) highlights that for an action to be considered autonomous, at least two conditions must be satisfied. The first condition is authenticity, which means that the individual's beliefs, values, motivations, and reasons are genuinely self-determined and are not shaped by external, manipulative, or distorting influences. Building on authenticity, the second condition relates to agency, which refers to the person's ability to act and align their actions according to their authentic beliefs and values. Laitinen and Sahlgren (2021, p. 5) expand on the definition of autonomy by noting that the ability to act in accordance with one's values and beliefs is futile if one does not actively use one's capabilities to make authentic decisions. Therefore, full autonomy is realized only when one effectively exercises autonomous decisions.

Algorithmic systems are not inherently at odds with human autonomy. Studies have shown that these systems can either enhance or hinder human autonomy, demonstrating a dual potential in their application (Bader & Kaiser, 2019; Floridi et al., 2018; Laitinen & Sahlgren, 2021; Lindebaum et al., 2020).

Studies suggest that algorithmic systems' negative impact on human autonomy will likely arise when certain conditions are met. Recruiters' ability to make autonomous decisions is compromised when algorithmic decisions lack transparency and recruiters are not fully aware of the conditions and factors influencing the recommended outcomes (Vaassen, 2022). Grant et al. (2023) point out that opaque algorithmic decision-making systems are problematic when making high-stakes decisions, as they obscure the reasoning behind recommendations, thus hindering decision-makers' ability to evaluate the basis of the recommendations. <sup>22</sup> Cristianini et al. (2021) assert that algorithmic precuration systems operate so goal-orientedly that they should be viewed as autonomous agents. The core tension between autonomous human agents and these goal-driven algorithmic systems stems from the fact that there is no inherent necessity for the systems' goals to align with those of their users, nor do users have the means to evaluate the algorithmic logic when these preferences are shrouded in (algorithmic) opacity.

If we define recruiter autonomy as having control and intellectual oversight over all the decisions made during the algorithmic-assisted recruiting process, algorithmic recruitment systems can certainly challenge this concept. Tensions between algorithmic systems and human autonomy intensify when these systems become overly dominant in the decision-making process, leaving users without the means to revise or challenge algorithm-based decisions (Helberger et al., 2018; Tsamados et al., 2022). Hunkenschroer and Kriebitz (2023) note that AI systems do not inherently limit recruiter autonomy, provided that recruiters can override AI suggestions or use AI as an additional recommendation tool while simultaneously retaining their decision-making authority.

Therefore, effective oversight over algorithmic decisions relies on recruiters' understanding of the AI system's underlying logic and reasoning. A prominent condition for this understanding is that users are aware that algorithm decision-making systems are shaping the information and the recommendations they receive. Zarouali et al. (2021) define **algorithmic awareness** as "the extent to which people hold accurate perceptions of what algorithms do in a particular media environment, as well as their impact on how users consume and experience media content" (p. 2). Studies on technology awareness highlight that from an autonomy perspective, understanding algorithmic curation processes is crucial for maintaining autonomy in algorithm-assisted decision-making processes (Dinev & Hu, 2007; Eslami et al., 2015).

Grasping how algorithms curate information flow and recommendations is the initial step for maintaining autonomy in the process. Savolainen and Ruckenstein (2022, p. 8) note that "Autonomous agency concerns more than inner reflection and deliberation. It requires enactment: the ability to navigate the opportunities and constraints of one's environment in ways that support self-chosen goals and values." Thus, maintaining autonomy requires more than just understanding how

 $<sup>^{22}</sup>$  When discussing moral obligations, Grant et al. (2023) highlight that decision-makers are bound by *duties of transparency*, meaning they are obligated to reveal specific information about the decision-making process to those affected by their decisions.

algorithms work; it also demands that users possess sufficient algorithmic competence, including the necessary skills and creativity, to make selfdetermined decisions in conjunction with algorithmic systems (Haugsbakken, 2022). Jarrahi et al. (2021, p. 6) similarly emphasize that individuals must be capable of understanding and engaging with algorithmic systems, as these competencies enable effective, autonomy-enhancing collaboration with algorithms. Autonomous action is ultimately realized when an individual effectively leverages their knowledge, competencies, and skills to make selfdetermined decisions within the context of an algorithmic system (Laitinen & Sahlgren, 2021; Savolainen & Ruckenstein, 2022). However, having algorithmic awareness and competence are of little use if a recruiter does not proactively leverage algorithmic systems for facilitating self-determined decisions, whether those values prioritize efficiency, validity, or other objectives. Given the importance of algorithmic competencies in facilitating autonomous decisions, scholars have advocated for improving these competencies to mitigate algorithmic HRM systems' adverse effects (see Pethig & Kroenung, 2023).

Human autonomy is also compromised when explicit or implicit restrictions exist on options of choice, which impact users' ability to make informed and self-determined choices (Dan-Cohen, 1992; Laitinen & Sahlgren, social media platforms' Although professional recommendation systems generally allow users to choose from a list of recommended job candidates, these systems can still subtly influence or nudge recruiters toward specific choices and away from others. As discussed in Section 3.3.1, the platform's user interface plays a crucial role in shaping the possibilities and boundaries regarding users' options of choice. Madary (2022) contends that user interfaces tend to deceive users by creating an "illusion of agency," where users feel in control of their decisions that can be, in fact, automatically triggered by the algorithmic system. This implies that recruiters may perceive a subjective sense of autonomy when using algorithmic search and recommendation systems, but their decisions could be subtly steered toward specific options. Since the algorithmic decision-making processes behind these systems are not transparent and lie beyond public scrutiny, fully understanding their influence on users' decision-making remains challenging and a relevant area of study.

## 4.3.1 Autonomy and Algorithmic Opacity

As algorithmic opacity can compromise autonomy and raise various issues (see Section 4.1.1), scholars have advocated for increasing algorithmic transparency as a potential solution to overcome such challenges (see Kennedy & Moss, 2015; Tsamados et al., 2021). However, studies have also highlighted challenges that complicate the seemingly straightforward task of enhancing transparency through regulatory measures. Researchers identify three main barriers to enhancing algorithmic transparency: 1) platform providers' intentional efforts to safeguard their intellectual property, 2) the specialized nature of coding and algorithm design, and 3) the segmented nature of algorithmic design and development (Burrell, 2016; Langer & König, 2023). These factors suggest that platforms might be reluctant to disclose their algorithms and find it challenging to do so even if they wish to.

Moreover, given the specialized nature of coding and algorithm design, increasing transparency might not be the most effective solution to address the negative impacts of opaque algorithmic systems. As Langer and König (2023) point out, HRM professionals are not trained to understand and interact with algorithmic systems, which is why making the underlying code transparent to recruiters might provide little benefit regarding their ability to evaluate the legitimacy of the algorithmic decisions. Since HRM professionals are not trained to interpret or "read" code, this procedure would place excessive demands on non-expert recruiters to understand complex algorithmic systems. As a result, increasing transparency would be ineffective in enhancing the autonomy of endusers.

Wang et al. (2023) also point out that increasing transparency can provide users with options for exploiting or "gaming" the system. In practice, users who become aware of the attributes valued by algorithmic systems might manipulate their profiles to appear more attractive to the algorithm, thereby reducing the system's accuracy. Some decision-makers might also prefer opaque decision-making processes over transparent ones. Rubel et al. (2019) argue that non-transparent decision-making systems allow users to avoid moral responsibility for their choices by attributing them to technology, effectively "laundering" their decisions through the algorithmic system. Eslami et al. (2019) found that users challenge or defend the use of opaque and potentially biased algorithmic systems based on the personal benefits they perceive from the system. Overall, studies suggest that determining the proper level of algorithmic transparency is a complex issue, as there are compelling arguments in support of enhancing transparency but also numerous challenges that make it difficult to achieve.

### 5 DATA AND METHODS

The dissertation process is often idealized as a process that unfolds according to a meticulously pre-planned research agenda, with choices and decisions neatly succeeding one another in an orderly manner. Anyone familiar with the practicalities of article-based dissertation processes understands that, more often than not, it is a complex process characterized by the developing ideas and frequent oscillations between various stages of research. As a proponent of intellectual honesty, I openly acknowledge that my dissertation did not progress step-by-step according to the initial research plan I drafted. While the research process adhered to protocols ensuring the validity and reliability of the results, the gathering of datasets was influenced by opportunism and luck; In addition to the two qualitative datasets I had planned and acquired, I was fortunate to come by a rich, quantitative dataset that perfectly suited my research design. The final research questions for this dissertation evolved as I delved deeper into the literature and subject matter. While some may view such shifts during the research process as a hindrance, I argue that rigid adherence to potentially immature decisions made in the early stages of the dissertation process is more likely to impede research than benefit it. If something, it would be concerning if an early career researcher's thinking and formulation of ideas did not evolve throughout the dissertation process, especially in exploratory research. I believe this development of ideas is fundamentally what the dissertation process is about, and it showcases the researcher's ability to let go of what does not work and prioritize their actions based on the best possible knowledge and resources at hand.

# 5.1 Rationale for the Multiple Methods Research Design

A traditional classification divides research methodologies into quantitative and qualitative methods, which differ in their methods, goals, strengths, and limitations (Valsiner, 2000). Qualitative research designs are often described as exploratory, aiming to gain insights into novel concepts, aid hypothesis development, and discover new theories. Qualitative research designs are often flexible in their use of methodology and emphasize inductive reasoning as a form of knowledge attainment. In contrast, quantitative research designs focus on deductive reasoning, primarily aiming at theory testing and identifying cause-and-effect relationships (Morgan, 2014). The debate over the characteristics and benefits of these methodologies has historically centered on the potential contradictions that arise when combining these approaches (see Bryman, 1984).

My study employs a multiple methods research design, which is often

confused with the more widely known mixed-methods approach. Mixed methods research designs combine elements from both quantitative and qualitative approaches. Johnson et al. (2007, p. 123) define mixed methods research as a type of "research that combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purposes of breadth and depth of understanding and corroboration." Although mixed methods research has been practiced for a long time, the idea of integrating these methodologies still elicits cautious and often misplaced reactions within the traditionally divided research community (Maxwell, 2016; Pelto, 2015).<sup>23</sup> Some contend that combining quantitative and qualitative methods into a single research design introduces such fundamental epistemological and ontological conflicts that formulating a new research paradigm is warranted. For others, the novelty of mixed methods research stems only from its possibility to integrate different paradigms and methodologies within a singular study (Ghiara, 2020). Creswell (2010) suggests that merging quantitative and qualitative methods offers mixed research designs the potential to be greater than the sum of their parts. However, he also emphasizes that in mixed methods research, there is a heightened need for clear articulation of the research design.

Multiple methods research is not susceptible to the epistemological challenges associated with mixed methods research. Morse and Cheek (2014) clarify the distinction between mixed-method and multiple methods research designs. A mixed-method design involves a primary project or study supplemented by an additional strategy that uses a different analytical technique but is not robust enough to stand alone. The supplementary element is only "complete" or interpretable when interpreted within the context of the primary component. In contrast, multiple methods designs consist of two or more

 $<sup>^{23}</sup>$  Levine comments that the ideological and epistemological divisions between disciplinary research communities stem partly from inward thinking, detracting from the ideal of strengthening a shared body of knowledge. (Hay, 2016, p. 3)

complete studies that introduce separate research questions, which all complement the overall inductive aim of the study. Davis et al. (2011, p. 468) define multiple methods research as "the type of research in which researchers draw on data from more than one source and employ more than one type of analysis." Morse and Cheek (2014) highlight that while mixed-methods research design is subject to various kinds of issues, such as sampling concerns and interproject reflexivity, multiple methods designs are not subject to similar problems as each component (or article) of the study is separate and, thus, less dependent from each other.

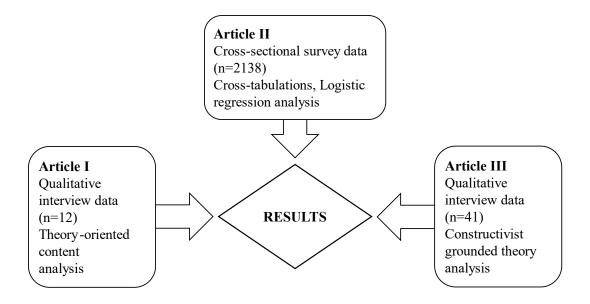


Figure 3. The complementary multiple methods research design.

My multiple methods research design (see Figure 3) comprises three separate research articles, each utilizing different datasets and methodologies, aimed at examining distinct but complementary aspects of proactive candidate search through social ties. Complimentary multiple methods research design offers flexibility as the sequencing of methods and components is irrelevant to the overall research goals (Davis et al., 2011). Since the results from one method do not inform or affect the implementation of subsequent methods, the researcher is free to collect and analyze data in any order as long as the findings are coherently integrated into a single set of results.

# 5.2 Philosophical and Methodological Considerations

As mentioned, multiple methods studies do not face the same epistemological challenges as mixed-methods research, as there is no need to unify the separate studies under a single epistemological framework. Still, it is important to clearly articulate the philosophical assumptions when reporting research (Coates, 2021).

According to Ghiara (2020), multiple methods studies can be distinguished based on the mixture of methodological paradigms employed in the sub-studies. In a dominant/less-dominant design, the study primarily adheres to one epistemological paradigm, incorporating only minor elements from others. In equal-status designs, multiple paradigms hold comparable significance within the research design. In my study, the methodological choices are influenced by methodological pluralism and a pragmatic approach that advocates for employing diverse empirical research methodologies (Frost & Bailey-Rodriguez, 2020). The guiding principle behind these choices is that the aim of empirical research is not to rigidly adhere to a single methodology for the sake of uniformity but rather to view methodologies as tools that researchers can utilize to achieve their desired outcomes (Yvonne Feilzer, 2010). While researchers are expected to use these tools honestly and rigorously, maintaining transparency and consistency in their methodological decisions, the idea of methodological uniformity should not constrain scientific inquiry from using the most suitable tools available.

On an epistemological level, the study leans toward a constructivist framework that emphasizes the socially constructed nature of knowledge formation (see Kukla & Kukla, 2000). While I contend that there exists a world that is independent from language and human experience, I acknowledge that gaining knowledge from the world is always affected by the historical, social, and situational conditions in which both the subject of study and the researcher are situated. Building on this framework, researcher should keep two essential points in mind. First, humans as subjects of study construct knowledge from the world through their own situated interpretations. This means that the researcher should recognize that human experiences as a subject of analysis provide information primarily on the experiences themselves rather than the natural world. Second, researcher should acknowledge that their own interpretations are also shaped by their surrounding social interactions, which influence the process of knowledge formation (Engward & Davis, 2015). This means that when studying human experiences, researchers are not passive spectators, as they have an active role in shaping both the data and its analysis (Charmaz et al., 2017).

Notably, my grounded theory methodology in the third article utilizes a constructivist grounded theory approach. The grounded theory methodology was initially developed by Barney Glaser and Anselm Strauss (see Glaser & Strauss, 1967), who later diverged to refine the methodology according to their own individual perspectives. Glaserian grounded theory is often seen as the more traditional inductive approach, prioritizing inductive reasoning and the emergence of theory directly from the data (Glaser, 2002). In contrast, Straussian grounded theory has evolved toward a more structured and formulaic methodology (Strauss & Corbin, 1990). Constructivist grounded theory, initially formulated by Kathy Charmaz and later co-developed with Antony Bryant, aligns with the constructivist epistemology, which asserts that knowledge and meanings are created not by passive reception of information but through active engagement with the world (Bryant & Charmaz, 2019). From a methodological

perspective, an apparent strength of the constructivist approach is that it encourages researchers to continually reflect on their role in the research process and how their own experiences, biases, and interactions influence the data and its analysis. This reflexivity highlights the importance of abductive reasoning in fostering creative and innovative theory building (Bryant & Charmaz, 2019; Timmermans & Tavory, 2012).

As previously mentioned, my socio-material perspective on the interplay between social relations and technological entities is inspired by actor-network theory (ANT) (see Latour, 2007; Law, 1992). Although some treat ANT as if it were a comprehensive ontological paradigm, its limited ontological depth posits it more as a theoretical lens than a full-fledged ontological framework. A significant discrepancy between the social constructivist framework and ANT exists in their perspectives on social structure. The constructivist framework recognizes that higher-level social structures, such as cultural, political, economic and educational systems, can exhibit emergent properties that are not present at the individual level. While the constructivist framework acknowledges that both social structures and individuals manifest emergent qualities, ANT views collective arrangements as fragile and fluid entities, suggesting that the concept of social structure offers no explanatory value (see Kirsch & Mitchell, 2004; Whittle & Spicer, 2008). Although ANT has several limitations that render it subject to well-placed critique, Elder-Vass (2008) points out that ANT can positively "provoke" critical realist research by underscoring the significance of relationships between actors and the causal influence of non-human objects in shaping social events.

### 5.3 Research Data and Methods

### 5.3.1 Qualitative Studies

Article I was a qualitative case study focusing on small and medium-sized organizations in the construction industry. The data comprised 12 semi-structured interviews with recruiting supervisors working within this sector. The focus was narrowed to SMEs as these companies tend to utilize more social ties in their recruitment practices when compared to larger firms (Mencken & Winfield, 1998). Thus, the focus on this sector provided a fruitful case for studying the use of interpersonal ties in proactive candidate search. The sampling of informants was purposive, aiming to reach a theoretically representative sample of individuals with relevant experience. This sampling approach prioritized gaining in-depth insights into the experiences and practices of recruiters who utilize social ties in their recruitment efforts. After identifying and contacting the relevant candidates, the author solely conducted all the face-to-face interviews. Eight informants worked in construction contracting firms, while four worked in construction design/consulting companies. Six participants recruited exclusively for white-collar positions, whereas the other

six had experience recruiting for both white-collar and blue-collar positions. All interviews were conducted between 2018 and 2019 and lasted from 45 to 90 minutes.

A semi-structured interview guide was prepared based on the research literature, containing themes that focused on the informants' perceptions and the practicalities of utilizing social contacts in recruitment. For example, themes included how employers perceive informal recruiting compared to other methods, in which stages of recruitment employers find social contacts most helpful, and from whom employers receive recommendations about potential job candidates. Although the interview guide was pre-prepared, the interviews were conducted flexibly, allowing the interviewees ample space to share their experiences.

The interviews were audio recorded, transcribed, and analyzed using a theory-oriented thematic analysis approach, which included identifying descriptive level categories and developing them into second-level themes (Vaismoradi et al., 2016). The analysis process was divided into three stages. The first stage included the data-driven inductive reasoning phase. The descriptive level categories that emerged through repetition in the data were written down, cross-examined with other categories, and further developed into themes. These themes were based on the interviewees' descriptions of situations where social contacts were used, primarily focusing on situations where social ties were perceived as particularly beneficial for recruitment purposes. In the second stage of the analysis, the material was examined abductively. The categories were cross-examined with previous theoretical accounts, comparing and contrasting how the observed categories aligned with previous theoretical accounts. In the third phase, categories and themes were re-examined and compared with the participants' perceived notions of the utility of social ties. As a result, employers were categorized into three ideal types based on their use of social ties at various stages of the recruitment process.

Article III, also a qualitative study, focused on the digital sphere and examined social ties within the context of social media platforms. The analysis was based on a dataset of 41 semi-structured interviews with recruitment professionals who use LinkedIn for proactive candidate search. The interviews were conducted between June and December 2021. The author identified suitable participants by conducting searches on LinkedIn and company websites, leading to direct invitations to join the study. Due to the ongoing COVID-19 pandemic restrictions at that time, interviews were conducted remotely. After the interviews, participants were asked to recommend acquaintances and other individuals who met the research's eligibility criteria. The final dataset consisted of 41 informants, including agency and in-house recruiters, hiring managers, and recruiting specialists, whose efforts primarily focused on white-collar positions. Each interview, lasting approximately an hour on average, was audio-recorded, manually transcribed, and uploaded to Atlas.ti software for further analysis.

The analysis utilized an abductive-oriented grounded theory methodology (Bryant & Charmaz, 2019; Timmermans & Tavory, 2012). Consistent with the

principles of grounded theory, data collection and analysis were conducted reflexively (Engward & Davis, 2015). In practice, this involved an active effort on my part to recognize how implicit and explicit factors affected the analysis process. Insights from existing literature shaped the semi-structured interview themes, which primarily focused on the participants' personal experiences of using LinkedIn for recruitment and hiring, particularly for proactive candidate search. By acknowledging how the literature shaped my understanding of the topic, I made a conscious effort during the interviews not to overly guide the discussions, allowing the participants the freedom to express their thoughts. During the analysis, I made a deliberate effort to identify concepts and themes that may not have been addressed in the existing literature. Data collection concluded when I as an author determined that the balance between diversity and similarity in the descriptions adequately supported the usefulness and variety of the categories. Throughout the analysis, empirical findings were compared with existing theoretical accounts, which helped refine and organize the findings coherently. This abductive approach enabled the articulation of meaningful theoretical interpretations while firmly anchoring the findings in empirical data.

The analysis was carried out in three phases. During the initial phase of descriptive coding, the transcripts were coded line-by-line to identify recruiters' perceptions and practices regarding proactive candidate search on the platform. Concurrently, emerging descriptions highlighted tensions between individual autonomy and the tools provided by the platform, leading to a deeper examination of these themes. In the second phase, codes were consolidated into focused codes by reviewing and identifying connections. In the final phase, these focused codes were theoretically developed into themes by examining them in relation to the entire dataset and comparing them to the previous accounts.

### 5.3.2 Quantitative Survey Analysis

Article II differed from articles I and III by focusing on the job seekers' side and utilizing a quantitative dataset and statistical methods in the analysis process. The dataset was initially collected as part of another research project in 2017, sourced from two large online research panels by a professional research company. The original dataset was a nationally representative sample (n = 5,000) of Finnish residents aged 18–69. The author refined the original sample to fit the research objectives better. The sample was first narrowed to the active labor force and wage earners by excluding students, retirees, and entrepreneurial groups. Entrepreneurial groups were specifically omitted from the analysis because the contract-based employment relationships of self-employed individuals produce qualitative differences in job-seeking behavior compared to wage earners. Given the focus on social media platforms, the sample was further narrowed to exclude individuals who do not use Facebook, LinkedIn, or Twitter.

 $<sup>^{24}</sup>$  The dataset was initially administered as a part of Finnish Innovation Fund Sitra's Work Life 2017 research project.

The final sample included 2,138 respondents, representing a subset of Finland's active labor force of wage earners who use Facebook, Twitter, or LinkedIn.

The survey included a wide range of questions about work life in general, covering both online and offline job search methods. From this data, I developed two dependent variables that related to job attainment via social media: one indicating whether respondents had successfully applied for a job through social media, and the other indicating whether respondents had been contacted and recruited for a job through social media. In addition, various independent variables were formed to determine what factors affect the probability of successfully applying for a job or getting recruited to a job through social media. In the initial phase of analysis, cross-tabulations and chi-square statistics were employed to assess the extent to which different socioeconomic groups find jobs or are found for jobs through social media platforms. Chi-square tests were utilized to determine the statistical significance of the relationships between job attainment methods and socioeconomic groups. Two separate logistic regression analyses were conducted to explore the factors influencing the likelihood of finding a job or being recruited through social media platforms. Logistic regression analysis is a method where the dependent variable is binary, meaning it can take only two values (Peng et al., 2002). In this case, the dependent variables measured respondents' job attainment through social media platforms using binary yes-or-no questions. The impact of independent variables on the probability of job attainment was assessed using the odds ratio measure (OR), which indicates the likelihood (the odds) of the outcome occurring with the presence of the predictor compared to its absence (Sperandei, 2014). In practice, an odds ratio less than 1 suggests that the predictor is associated with lower odds of the outcome, while an odds ratio greater than 1 indicates higher odds of the outcome. For instance, an odds ratio of 2 means that a one-unit increase in the predictor doubles the odds of the outcome occurring. To determine which variables had meaningful effects on the probabilities of job attainment, p-values were interpreted to determine the statistically significant associations between dependent and independent variables (Peng et al., 2002; Sperandei, 2014).

#### 5.4 Ethics and Quality Criteria

Although the topic of my dissertation is not considered sensitive, research integrity and ethical considerations are essential in any research. According to university guidelines at the time, the study did not require submission to an institutional ethical review board since no sensitive data was involved in the study. Nevertheless, following the standards for conducting research within Finnish universities, I ensured that all data collection was accompanied by obtaining informed consent from participants and establishing a secure data management program before beginning the study. The two qualitative datasets I gathered were handled and stored following the guidelines set by the Finnish

National Board on Research Integrity (TENK).<sup>25</sup> Participants were informed of their right to refuse or cancel their participation at any point. In terms of data protection, no identifiable personal information or data about sensitive topics was collected. The quantitative dataset analyzed in Article II did not necessitate special considerations regarding anonymization, as the dataset was already anonymized when I acquired it. Nonetheless, I adhered to TENK's ethical data management procedures in handling all my datasets and minimized the risks associated with data mishandling. After the interviews were transcribed, the audio recordings were deleted, and the transcripts and the quantitative dataset were stored on the university cloud server according to university guidelines and the pre-established data management plan.

The dissertation employs a range of methodological approaches, and this diversity requires readers to have an understanding of multiple methodological and philosophical viewpoints. To help readers better evaluate the findings and the overall contribution of the dissertation, I have structured this report around three guiding principles (see Grodal et al., 2021; Niittymies, 2022). The first principle is transparency, meaning that I have strived to be transparent and truthful in explaining my research design and the sequence of decisions that culminated in the final dissertation. Second, I have aimed for a precise and coherent articulation of this study's philosophical assumptions, including my own epistemological and ontological perspectives. Although multiple methods research does not face the same demands for a unified epistemology as mixedmethods research (see Morse, 2017), I have strived for ontological and epistemological coherence in my research design. While not everyone may be interested in delving into the nature of knowledge formation and the underlying reality, I believe every (social) scientist should be capable of expressing their views on how they perceive the world, at least to some extent. Third, while I consider my research design to be epistemologically coherent, I acknowledge that the results from my separate studies are only partially commensurable due to their varying epistemological foundations. I have endeavored to convey the (in)commensurability of my results to the reader as clearly and honestly as possible.

<sup>&</sup>lt;sup>25</sup> https://tenk.fi/en/advice-and-materials

#### **6 SUMMARY OF FINDINGS**

This chapter summarizes the three substudies' main empirical findings and contributions. I will illustrate and discuss how each article's results address each research question. The articles in this chapter are presented chronologically, in the order of their publication, which also aligns with the progression of the dissertation process. Table 2 provides summaries of the substudies' aims, data, methods, and main findings.

Table 2. Summary of articles.

Article	Aims	Data and Methods	Findings
Article I: Social contacts and informal knowledge in recruiting: A case study of construction industry SMEs	The study examines how employers utilize social contacts at different stages of recruitment, while exploring what kind of practical actions are involved in the successful utilisation of social contacts. Consequently, it explores the differences between information obtained from interpersonal channels and that gathered through other mediums.	Qualitative interview data, Theory-oriented content analysis	Recruiters leverage social contacts across three recruitment phases: talent attraction, screening, and selection. Information obtained from interpersonal ties is valued for its reliability and accuracy. Moreover, interpersonal social contacts afford employers access to information that is otherwise considered inaccessible or hard-to-obtain.
Article II: Social media as a place to see and be seen: Exploring factors affecting job attainment via social media	The article examines the extent to which much individuals from different socioeconomic groups successfully apply for jobs and get recruited to positions through social media, and what factors impact the likelihood of job attainment via social media.	Cross-sectional survey data, Logistic regression analysis, chi- square	Different socio-economic groups show little variation in the prevalence of finding jobs through social media, whereas higher socio-economic groups are more often recruited to jobs through social media. Strategic networking, posting of professional content and LinkedIn usage increase the probability of getting recruited to a job through social media.
Article III: What if I disagree with the algorithm? Examining recruiters' autonomyenhancing practices on professional social media platforms.	The article examines recruiters' motives and practices to promote autonomy on professional social media platforms.  Consequently, the study offers insights into how algorithmic curation mechanisms intertwine with networks mechanisms and what factors contribute to job seekers visibility on professional social media platforms.	Qualitative interview data, Constructivist grounded theory	When recruiters use professional social media platforms to search for job candidates, their network connections serve to extend the reach of candidates they can access through platform-provided search and recommendation mechanisms. Having algorithmic competence facilitates autonomous decision-making, empowering recruiters to align their evaluation practices more effectively with their self-determined values.

## 6.1 Article 1: Social Contacts and Informal Knowledge in Recruiting: A Case Study of Construction Industry SMEs

Article I examines employers' utilization of social contacts in recruitment. The study aimed to identify the stages of recruitment where employers use social contacts and the consequent reasons for utilizing social contacts in these phases. The theoretical framework conceptualized recruitment as a three-phase process comprising talent attraction, screening, and selection phases. Additionally, the analysis sought to identify the practical actions employers take to leverage their social contacts for recruitment purposes.

Based on the analysis, employers utilize social contacts in three different phases of recruitment. In the talent attraction phase, employers deliberately utilize their social networks to spread a positive employer image, aiming to attract job seekers to apply for positions. Both employers and employees often unintentionally project this positive image during regular social interactions, but they also do so consciously. A second benefit employers received from their employees and acquaintances were unsolicited recommendations about potential job candidates. These recommendations were valuable during both the talent attraction and screening phases. They enabled employers to connect with candidates without proactive effort and offered insights into the candidates' potential competences and fit within the organization. These recommendations most often came from the firm's employees, who possessed nuanced knowledge of both the company and the candidates they were recommending. This intermediary role made them effective evaluators of candidates' potential fit for the job. In addition to receiving unsolicited recommendations, employers also deliberately reached out to their social contacts to gather information about job applicants who had already applied for a position. This information-seeking effort took place during the evaluation stage of recruitment, where the information was used to decide whether to hire a particular candidate.

Consequently, a three-level categorization was developed to classify employers based on how they leverage social contacts in recruitment. Passive employers, who derive little benefit from social contacts, do not deliberately share positive employer image to their social contacts nor do they encourage their social contacts to share information about potential job candidates. Reactive employers occasionally encourage their social contacts to share professionally relevant information, but they do this sporadically and without a deliberate strategy. In contrast, proactive employers regard social networks as a valuable recruitment asset, which is why they deliberately and systematically invest resources to activate their social networks. Proactive employers encourage their employees and acquaintances to promote a positive employer image within their social circles and share information about potential job candidates with the employer. Due to their investments in activating social networks, proactive employers reap more benefits from their social connections than passive and reactive employers.

The article primarily contributes to RQ1 and secondly to RQ3 by illuminating the benefits that employers derive from interpersonal social ties. Several factors motivated employers to reach out to their social contacts. The main advantage was that interpersonal ties allowed employers to access information otherwise unavailable or difficult to obtain through other mediums. For instance, information about candidates' personalities and attitudes was considered crucial for successful hiring. Interpersonal ties provide insights into these factors, as face-to-face interactions help reveal information about individuals' hard-to-measure qualities. Furthermore, non-digital social ties offer access to private information, giving employers a strategic advantage in the recruitment process. Participants explained how face-to-face interactions facilitate the exchange of confidential information, allowing employers to gain insights into the internal situations of competing firms. This enables them to strategically target their recruitment efforts on companies where employees have expressed dissatisfaction with their current employer. Another notable characteristic of non-digital social ties is that they foster trust between individuals, which improves the quality of information received. Participants highlighted how the recommendations they received from social contacts tended to be particularly reliable. Participants recalled situations where the information obtained from interpersonal ties was considered so reliable that no additional screening was necessary to make a hiring decision. On the downside, participants noted that while allocating resources helps harness the potential of social networks, the recommendations received are often too few to meet all the company's hiring needs.

## 6.2 Article 2: Social Media as a Place to See and Be Seen: Exploring Factors Affecting Job Attainment via Social Media

Article II stands apart from the other sub-studies in both focus and methodology. While Articles I and III concentrate on the demand side of the labor market, Article II focuses on the supply side, using quantitative data and statistical methods. It investigates the extent to which job candidates are proactively searched for positions through social media platforms and identifies the factors influencing the likelihood of getting recruited to jobs through these platforms. In addition, the study examines how frequently job seekers independently find employment through social media platforms and what factors affect the probability of finding a job through social media.

While most of the literature has examined job attainment through social media platforms as a process where job seekers attain jobs through active search efforts, my article, to the best of my knowledge, is the first to systematically conceptualize and highlight that, due to employers' proactive candidate search efforts, job seekers can receive information about potential opportunities without actively engaging in job search activities. In the theoretical framework, I highlight

how job seekers can use social media platforms to search job-related information and conduct online job searches, as well as enhance their visibility and attract the attention of recruiters and potential employers who are proactively searching for potential job candidates.

The first aim of the article was to investigate the extent to which job seekers from different socioeconomic groups find jobs or get recruited to jobs through social media. To achieve this, cross-tabulations and chi-square statistics were employed to identify variations in both job attainment methods. Participants were asked, "Have you found a job or assignment through social media?" and "Have you been found for a job or position through social media?" These questions were translated into dependent variables, the first indicating whether respondents had successfully applied for a job via social media, and the second indicating whether they had been contacted and recruited through social media (0 = no, 1 = yes). These variables were then cross-tabulated with participants' self-assessed socioeconomic group, using a scale based on the standard socioeconomic classification employed by Statistics Finland. Dummy variables were created to indicate the respective socioeconomic group (blue-collar, lower white-collar, upper white-collar, and upper management).

The cross-tabulations revealed only slight variations and a statistically insignificant association between socioeconomic groups and the prevalence of successfully applying for a job through social media. Among blue-collar (10.1%), lower white-collar (9.8%), and upper white-collar workers (9.9%), approximately one in ten had found a job through social media. The proportion was slightly higher among upper management workers (12.7%), with about one in seven successfully applying for a job through social media.

As for getting recruited to a job through social media, the cross-tabulations revealed more considerable and statistically significant differences between socioeconomic groups. Among blue-collar workers, only 3.9% had been recruited through social media, compared to 7.2% of lower white-collar and 8.6% of upper white-collar workers. The prevalence was highest among upper management workers, where one out of seven (13.7%) respondents had been recruited to a job through social media. These findings underscore the polarized nature of platform-mediated job attainment: Although all socioeconomic groups tend to find employment through social media platforms at similar rates, higher socioeconomic groups are more frequently recruited to jobs through these platforms. This highlights the concept of a winner-take-all labor market, where workers from lower socioeconomic groups must actively search for jobs, whereas those from higher socioeconomic groups are actively sought after and recruited.

The article's main contributions to RQ1 and RQ3 emerge from examining what factors affect the probability of getting recruited to a job through social media platforms. The logistic regression analysis identified several factors that affect the chances of successfully applying for and being recruited to a job via social media. Several independent variables were derived from the questionnaire, indicating strategic networking, job search activity, posting professional content, and platform usage (Facebook, then-Twitter, and/or LinkedIn). The effects of

these variables were then examined using logistic regression analysis. This analysis was conducted in three steps, with additional variables introduced to the model at each stage. In the first, baseline model, only sociodemographic variables were included. In this model, belonging to higher socioeconomic groups was associated with a higher probability of being recruited to a job through social media. In the second model, variables related to strategic networking, job search activity, and posting professional content were added. In this model, strategic networking and posting professional content were associated with a higher probability, with socioeconomic groups still holding a statistically significant association. In the third model, the usage of specific platforms (Facebook, LinkedIn, or Twitter) was included to assess whether any platform had a more substantial impact on job attainment. The results showed that LinkedIn usage positively correlated with the likelihood of being recruited through social media, while Facebook and Twitter did not exhibit such a relationship. Interestingly, the positive associations with higher socioeconomic groups diminished after including platform-specific variables. Only the lower white-collar group maintained a weak but statistically significant association.

The results indicate that job seekers who proactively network with individuals who might be valuable for job search are more frequently sought out and recruited through social media platforms. This implies that on social media platforms, social media ties enhance job seekers' visibility and searchability to potential employers. Since the dataset did not allow for a detailed examination of how social ties relate to visibility and possibly interact with algorithmic curation mechanisms, the interplay between relational ties and algorithmic curation mechanisms (RQ2) can only be speculated upon. The association between posting professional content and a higher likelihood of getting recruited suggests that job seekers' content on social media platforms may enhance their algorithmically curated visibility to potential employers. Furthermore, the results highlight that not all social media platforms are equal for job attainment, as only LinkedIn usage correlated with a higher probability of getting recruited. This confirms that employers primarily use professional social media platforms for proactive candidate search.

# 6.3 Article 3: What if I Disagree with the Algorithm? Examining Recruiters' Autonomy-enhancing Practices on Professional Social Media Platforms.

The speculations arising from the results of Article II are further explicated in Article III, which primarily focuses on the algorithmic curation mechanisms that affect a job candidate's visibility to potential employers and searchability on professional social media platforms (RQ2). The article's empirical focus was on examining recruiters' proactive candidate search on professional social media platforms, specifically LinkedIn. The theoretical framework conceptualized these

platforms not only as networking tools that enable users to gain professional advantages through networking but also as platforms where built-in search and recommendation mechanisms transform them into algorithmically assisted recruiting platforms. Drawing on literature highlighting potential tensions between algorithmic systems and human autonomy, the study examined how recruiters perceive their autonomy in the platform-mediated candidate search process, where algorithmic pre-curation mechanisms make decisions that are not always transparent to the users. The primary research aims were to explore the motives behind recruiters' decisions to implement autonomy-enhancing strategies on professional social media platforms and to identify the practices they use to promote autonomy in proactive candidate search. Like Article I, the study focused on the employer's perspective, using interview data gathered from recruiters who use LinkedIn in their daily recruitment activities, specifically for proactive candidate search.

Article III addresses RQ2 by examining how digital connections enhance job seekers' visibility to employers on professional social media platforms and how algorithmic curation mechanisms influence this process. Participants elaborated on the role of social media ties in proactive candidate search. They noted that users' network composition affects how they can be found through the platform's search and recommendation systems. While premium subscriptions enable recruiters to scan the entire user base without network restrictions, users who lack these subscriptions can only reach friend-of-friend connections, rendering users further away in the network unreachable to recruiters. To overcome these network restrictions, recruiters expanded their digital networks to widen the reach of options that they can access through platform-provided search and recommendation systems.

Additionally, participants observed that search and recommendation systems prioritize users with more content on their profiles. Although these insights are based on recruiters' perceptions and their limited understanding of the underlying algorithmic mechanisms (due to algorithmic opacity), they align with the speculations that emerged from the results of Article II. Overall, on professional social media platforms such as LinkedIn, algorithmic pre-curation mechanisms appear to favor users with larger networks and more extensive profile content. This amplification of specific users' visibility reduces the likelihood of unexpected or serendipitous encounters, as certain users are repeatedly showcased on the top of the platform-provided search results. Interestingly, many participants viewed these factors as irrelevant and actively sought to counteract the influence of network composition and profile content on the search results.

Article III contributes to RQ3 by highlighting that there are recruiters who are not satisfied with the decisions made by algorithmic pre-curation mechanisms on professional social media platforms. Participants expressed frustration with how search and recommendation systems excluded relevant candidates based on minor and irrelevant details and made decisions that contradicted their personal values and goals. The lack of transparency made it

difficult for recruiters to maintain intellectual oversight of the decisions made in the process, frustrating those who were keen on aligning their recruitment practices with their personal goals and values. Those seeking greater intellectual oversight and a broader reach of options employed their algorithmic skills and creativity to access more meaningful options and better align their recruitment practices with their personal values and goals. This highlights a key finding of the sub-study: algorithmic competence supports autonomous decision-making and helps recruiters align their evaluation practices with their self-determined values and objectives.

#### 7 DISCUSSION AND CONCLUSIONS

#### 7.1 Theoretical Contributions

This dissertation argues that the digital social media ties formed on social media platforms differ from their non-digital counterparts in their ability to mediate information between employers and job candidates. Furthermore, the development of various algorithmic technologies, including curation, search, and recommendation systems, has increased the visibility of employees through data, granting employer organizations greater opportunities to actively participate in labor seeking activities. My theoretical framework draws attention to the concept of visibility and its increasingly important role in contemporary labor matching processes.

To advance the knowledge about these developmental processes, the dissertation examined the differences between non-digital interpersonal ties and digital social media ties by comparing and contrasting how these ties contribute to labor matching through proactive candidate search. I concur with Bills et al. (2017) and argue that employers proactive recruitment strategies are grossly understudied subject in contemporary labor matching research. Future research needs to acknowledge this shift and take a closer look at recruiters' proactive approaches and how these strategies impact traditional labor market dynamics. Additionally, the dissertation calls for further research to acknowledge the nuances of platform-mediated labor matching. I have highlighted how employers utilize social media platforms in various phases of recruitment. While the research on cybervetting has provided valuable insights into employers' use of social media platforms (see Berkelaar & Harrison, 2016; Wilcox et al., 2022), there is still much to explore. My study emphasizes the need for future research to identify the specific stages at which employers incorporate social media into their recruitment processes (Roth et al., 2016).

Additionally, my dissertation highlights the mediating role of social media platforms and how their algorithmic pre-curation mechanisms affect job candidates' visibility to employers, thereby influencing the matching between

labor supply and demand. A considerable amount of literature has been published on how algorithmic curation systems mediate labor matching on gig economy platforms (see Vallas & Schor, 2020; Wood & Lehdonvirta, 2022). My analysis of social media platforms reveals that algorithmic pre-curation mechanisms impact not just specific sectors of gig work, as algorithmic search and recommendation systems on social media platforms are used to identify potential job candidates across various industries. In the rest of the chapter, I will answer the three RQs presented at the beginning of the study: (1) In what ways do interpersonal ties and social media ties contribute to labor matching through proactive candidate search?, (2) How do algorithmic curation mechanisms on social media platforms intertwine, reshape, and potentially diminish proactive candidate search through social ties?, and (3) What strategic and ethical implications arise from employers' use of interpersonal ties and social media platforms in proactive candidate search?

# 7.2 RQ1: In What Ways Do Interpersonal Ties and Social Media Ties Contribute to Labor Matching Through Proactive Candidate Search?

To address the unifying research question RQ1, the sub-articles of this dissertation examined how social ties contribute to proactive candidate search in both offline and online contexts, incorporating perspectives from both sides of the labor market. Article I focused on interpersonal social ties, providing insights into what kind of information employers receive through non-digital social ties and how employers utilize these ties in the proactive search for potential job candidates. The results build on previous literature by emphasizing that information obtained from interpersonal ties tends to be particularly reliable and accurate, providing valuable insights for the evaluation process.

Several factors contribute to these beneficial characteristics of interpersonal mediums. The reliability of information obtained from interpersonal connections is linked to social incentives that promote pro-social behavior and trust among these ties (Luhmann, 2017; Ruuskanen, 2003; Schilke et al., 2021). Participants in the study described their genuine belief that their employees do not want to disappoint their employers by recommending an unsuitable candidate. Consequently, participants exhibited unconditional trust to recommendations acquired from personally known contacts. Granovetter (2005) argues that trust-promoting social norms diminish as the size of a network increases, suggesting that members of larger social networks may place less emphasis on trustworthy behavior. Although my research does not permit a comparative analysis of how network size influences information reliability, my case study supports the notion that trust-promoting social norms exist in densely interconnected networks, such as the close-knit work communities of SME firms.

Previous studies have shown that digital mediums often limit the richness of interaction, providing limited access to information regarding job candidates' hard-to-measure qualities, such as personality and potential job performance (Leonardi & Treem, 2020; Thompson, 2020). In contrast, interpersonal social ties convey information that is difficult to obtain through digital mediums, as faceto-face interactions allow individuals to gather accurate and nuanced details about others (Thompson, 2005). Consequently, interpersonal social ties that exist between the employing organization and potential job candidates serve as effective mediums, possessing in-depth information from both sides. This position allows these social ties to function as effective pre-screen evaluators of suitability, as they have insights from both the candidates' hard-to-measure characteristics and the qualities of the employing organization. When combined with trust-promoting norms and individuals' desire to maintain their reputation within the network, this pre-screening effect is enhanced, turning interpersonal ties into a medium that significantly improves the quality of matching between employers and job candidates (see Smith, 2005). Unfortunately, my datasets did not allow for a specific examination of whether similar kinds of trust-promoting norms exist in social media networks.

My findings support previous studies indicating that job candidates' online activities, including networking behavior, affect their exposure to job leads and career opportunities on these platforms (Karaoglu et al., 2021; Nikolaou, 2014; Utz, 2016; Utz & Breuer, 2016). My quantitative analysis, focusing on the job seeker's perspective, shows that candidates who strategically expand their digital networks are more often found and recruited to jobs and positions through social media platforms. While these results demonstrate that networking behavior and digital ties facilitate labor matching through proactive candidate search, they do not explore in detail how relational ties specifically support this process on social media platforms.

The qualitative analysis, focusing on the employer's perspective, further elaborates on these mechanisms, indicating that on social media networks, social media ties primarily increase job candidates' visibility rather than provide the kind of pre-curation mechanisms found in interpersonal networks. This finding aligns with and builds upon existing literature, emphasizing that contemporary digital environments amplify users' behavioral visibility to others (Brighenti, 2010; Leonardi & Treem, 2020; Stohl et al., 2016; Treem et al., 2020). While social media networks facilitate employers' cost-efficient access to information about potential job candidates, the participants in sub-study III expressed frustration that the information available on these platforms was often suboptimal for conveying nuanced information about job candidates. This contrasts with information obtained through interpersonal channels, which is perceived as particularly accurate.

Another distinction arises from the public and private nature of the information received through interpersonal and social media networks. Prior literature has highlighted that social media platforms enable employers to access employees' private spheres and gather information about their personal lives

(Davis & Jurgenson, 2014; Hatuka & Toch, 2017; Ollier-Malaterre et al., 2013; Van Dijck, 2013). My findings contribute to a more nuanced understanding of the public-private taxonomy by revealing varying degrees between truly private and publicly accessible information. While I agree that social media platforms offer employers access into the personal lives of job candidates (McDonald et al., 2021), the information shared on social media networks often remains public in nature, as it is accessible to a broad and often indeterminate audience (Litt & Hargittai, 2016; Marwick & boyd, 2011). My findings suggest that interpersonal ties provide access to private information not intended for public distribution (Uzzi, 1999). This confidential information is valuable for labor-matching purposes, as it enables both employers and job candidates to strategically use it to approach each other at the optimal time. Overall, the results indicate that not all information is equally beneficial for labor-matching purposes. A taxonomy emerges between non-digital and digital networks: information shared through interpersonal mediums is limited in quantity but provides nuanced and valuable insights for labor matching. In contrast, information flowing on social media networks, though abundant and easily accessible, often lacks similar nuance and precision. Figure 4 summarizes how interpersonal and social media ties contribute to proactive candidate search.

#### **Interpersonal ties**

- Promote trust and increase the reliability of received information
- Provide access to candidates hard-to-measure qualities
- Act as a pre-evaluation mechanism
- Provide access to confidential private information

#### Social media ties

- Increase job seekers probability of getting recruited to a job through social media platforms
- Enhance job candidates' visibility and searchability on social media platforms
- Expand employers reach of potential candidates on social media platforms

Figure 4. Interpersonal and social media ties in proactive candidate search.

# 7.3 RQ2: How do Algorithmic Curation Mechanisms on Social Media Platforms Intertwine, Reshape, and Potentially Diminish Proactive Candidate Search Through Social Ties?

Although algorithmic curation mechanisms have been studied for their role in moderating content exposure and shaping digital networks (Khalid et al., 2022; Lu et al., 2015; Olshannikova et al., 2022; Terveen & McDonald, 2005), their impact on labor matching has remained relatively unexplored. This dissertation illuminates the growing influence of algorithmic pre-curation systems as mediators between job seekers and employers. The findings offer insights into how algorithmic search and recommendation systems on social media platforms facilitate the matching process between employers and job candidates. The results suggest that employers focus their search efforts on professional social media platforms, which offer the most sophisticated tools and nuanced dataset for searching potential job candidates. Authors argue that algorithmic curation mechanisms have increasingly overshadowed the influence of network mechanisms in mediating individuals' access to content, users, and information (Kane et al., 2014). While my study does not allow me to make definitive conclusions about the exact relational dynamics between algorithmic and network curation mechanisms, my findings suggest that at this stage of social media platforms, job candidates' visibility to employers is facilitated by a combination of both algorithmic curation and network mechanisms. The findings from Article II show that job seekers who proactively build their digital networks also increase their chances of being discovered and recruited through social media platforms. The findings from Article III reinforce this notion by illustrating that when employers use platform-provided search and recommendation systems to find potential job candidates, the recruiters' network composition facilitates their ability to reach users on the platform. Recruiters who are aware of this strategically expand their social media networks to broaden their reach of candidates. Conversely, in this dynamic, job candidates' social media ties primarily serve to increase their visibility to potential employers.

Algorithmic pre-curation mechanisms consider factors beyond network composition when prioritizing potential job candidates. On the supply side, the results show that job candidates who generate more content on their profiles are more likely to be recruited via social media platforms. On the demand side, the findings reveal that search and recommendation systems favor users with more profile content. These findings align with previous studies emphasizing how platforms' infrastructural choices impact and reshape the interaction between job seekers and employers (Ajunwa & Greene, 2019; Sharone, 2017). The infrastructural choices on professional social media platforms determine the evaluation logic behind algorithmic search and recommendation systems, which in turn shapes the factors that affect job candidates' visibility to employers. This grants algorithmic pre-curation mechanisms substantial influence in the evaluation process, effectively determining which candidates are presented to

employers and can advance to the human evaluation phase of proactive candidate search. The results align with the accumulative body of literature emphasizing the polarizing effects of algorithmic curation systems (Dujeancourt & Garz, 2023; McDonald et al., 2019; Olshannikova et al., 2022; Sharone, 2017). On social media platforms, candidates who succeed in pleasing the algorithm enjoy amplified visibility and consistent exposure to potential employers. Conversely, other users that are not highlighted by the algorithmic search and recommendation systems remain obscured, unseen by employers, and excluded from the talent attraction process.

### Platform-mediated labor matching

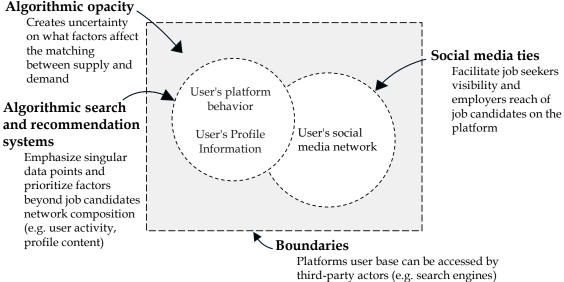


Figure 5. Platform-mediated labor matching.

Figure 5 summarizes the key factors of platform-mediated labor matching. Taken together, the results suggest that on social media platforms, the direct influence of social ties on labor matching has evolved into a complex interplay with algorithmic logic, prioritizing factors beyond the job candidates' network composition. While social media ties influence the flow of information between employers and job candidates, algorithmic curation mechanisms increasingly steer the labor-matching process by emphasizing other factors, such as users' platform behavior and user information. However, due to the opacity of algorithmic search and recommendation systems, users of these systems often remain unaware of the factors influencing the visibility of job candidates. Simultaneously, the ease of access for third-party actors means that platform boundaries are loose, allowing information flowing through social media networks to be mined by third-party entities, such as search engines and data mining tools. Interestingly, in my interviews with recruiters, many considered the factors prioritized by the algorithm – such as a candidate's network size and the quantity of social media content—as irrelevant for evaluating candidates'

competences and suitability for a position. This raises the question of who should have the authority to determine which factors influence the matching between employers and job candidates and whether users of these systems should have a say in the matter.

# 7.4 RQ3: What Strategic and Ethical Implications Arise from Employers' Use of Interpersonal Ties and Social Media Platforms in Proactive Candidate Search?

The third research question aimed to situate the findings within a broader societal context, enabling me to extend my analysis from the current situation (how things are) to commenting on the potential (how things could be) and ideal (how things should be) conditions of labor matching. The findings reported here indicate that network- and platform-mediated labor matching have their own benefits and challenges (see Figure 6). Both mediums exclude job candidates from the talent attraction process based on factors typically considered as undesirable. While individuals' tendencies to form social connections with others who share similar traits or attributes offer micro-level evaluation benefits allowing employers to assess job candidates by observing the characteristics of their social links (Fernandez & Galperin, 2014; Montgomery, 1991) – at a broader level, homophily bias produces segregation and disadvantages individuals and groups who lack social connections to the employer (Ahmad, 2015; Fernandez & Sosa, 2005; Kracke & Klug, 2021). Algorithmic mediation technologies have the potential to bypass these undesirable network effects. My perspective aligns with Martindale and Lehdonvirta (2023), who suggest that while digital mediation technologies are likely to reproduce digital divides in access to work, they also have the potential to reduce class-based disparities in worker selection.

On the other hand, while algorithmic search and recommendation systems can potentially override unwanted network effects, allowing employers to identify and attract job candidates irrespective of candidates' network composition, algorithmic mediation technologies can create new types of frictions and divisions in the labor force by excluding candidates based on factors such as algorithmic competence and impression management skills. Labor market stakeholders should consider these factors when assessing the strategic and ethical implications of both labor market mediums. It is also essential to consider who should have the authority to determine the criteria for matching employers with job candidates and what factors should govern access to positions. When employers use interpersonal social ties for talent attraction purposes, access to positions is influenced more by network mechanisms and an individual's social networks. Conversely, when employers identify and attract employers through social media platforms, control over access to positions increasingly transitions to platform providers and their algorithmic decisionmaking procedures.

The findings from Article III align with previous literature and highlight how, on social media platforms, algorithmic curation mechanisms shape user preferences and mediate social interactions by controlling the presentation of options and the exchange of information within the system (Gillespie, 2014; Milano et al., 2021). This grants platform providers significant power as mediators of the labor market. The results indicate that employers concentrate their recruitment efforts on selected platforms, with LinkedIn emerging as the most utilized platform for proactive candidate search. The concentration on specific platforms further highlights the power of individual platforms and accentuates the gravity of platform providers' decisions (Van Dijck et al., 2019). Recruiters' reflections on their role as evaluators raise essential questions about who should have the authority to define the factors influencing algorithmic evaluation systems and whether these criteria should be transparent to the endusers operating these systems (Grant et al., 2023; Tsamados et al., 2022). Previous research presents valid arguments against excessively increasing algorithmic transparency, suggesting it can complicate user interaction and place undue demands on non-experts to understand these systems (Ananny & Crawford, 2018; Burrell, 2016; Eslami et al., 2019). Aligning with these notions, my results indicate that recruiters who possess adequate algorithmic skills are better equipped to operate and work around opaque decision-making conditions.

At a fundamental level, if we want accountable evaluation processes, there needs to be someone to be held accountable for the decisions made throughout the evaluation process. A pertinent question is how to integrate the boundaries between algorithmic and human decision-making in such a way that there exist no gray areas where no one can be held accountable for the decisions made in the process. My findings indicate that in the current decision-making environment, recruiters as evaluators cannot take ownership of algorithmic-assisted decisions, as they have little means to assess the opaque algorithmic pre-curation decisions that precede their own evaluation procedures. A broader discussion is whether the responsibility for algorithmic-assisted recruitment decisions should fall solely on end-users. Some argue that this responsibility should reside at the organizational level rather than with individual recruiters (Hunkenschroer & Kriebitz, 2023). Others emphasize that algorithmic systems should offer endusers such opportunities that they can enact fair, transparent, and accountable decisions (Shin & Park, 2019). Based on my findings, I argue that end-users of algorithmic evaluation systems should have more significant opportunities to properly assess the algorithmic decisions that precede their own evaluation procedures. This promotes accountable decision-making processes and safeguards users' ability to make autonomous decisions.

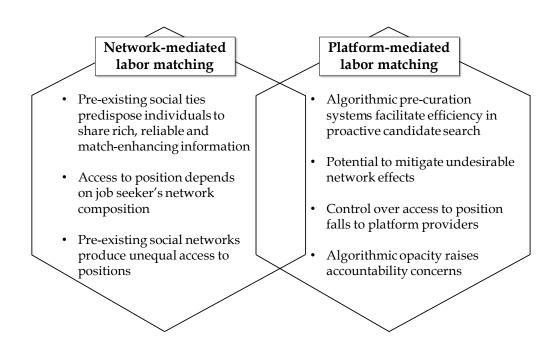


Figure 6. Network-mediated and platform-mediated labor matching.

The results also contribute to the discussion about platform power and platform providers' roles as influential mediators of societal functions such as labor matching (Gillespie et al., 2020; Van Dijck et al., 2019). I argue that issues arising from pre-existing social networks, which produce unequal outcomes regarding access to jobs and positions, are challenging to address through regulatory measures and labor market interventions (Granovetter, 2005). On the other hand, the perceived shortcomings of platform-mediated labor-matching processes can be more easily addressed if viewed as flawed. As discussed throughout this dissertation, social media platforms are technological constructs created and shaped by human decisions (Shin & Park, 2019). While platform-mediated labormatching processes come with their own set of frictions, these frictions are easier to fix than those stemming from pre-existing social networks and interaction patterns. For example, if we want to alleviate the challenges faced by migrant workers due to their limited social ties (see Ahmad, 2015; Kracke & Klug, 2021), these platforms can be configured to bypass network mechanisms, enabling job seekers to see and connect with employers directly, without the intermediary influence of social networks. On the other hand, a pertinent question is whether job seekers should depend on their engagement with digital platforms and the corresponding disclosure of personal data to gain access to professional opportunities.

## 7.5 Emergent Technologies Make New Kinds of Markets Possible: Implications for Practice and Policy

Effective interventions begin with recognizing that social media platforms are not just neutral connectors between job seekers and employers and that algorithmic search and recommendation systems are not merely objective tools for managing information overload. Instead, both policymakers and platform users should view these platforms and systems as influential intermediaries that shape and impact the labor-matching processes occurring through these platforms. Recent years have shown that legislation aimed at safeguarding users' privacy and equality in the digital sphere consistently lags behind rapidly evolving private sector innovations (Ajunwa, 2020; Cheng & Hackett, 2021; Marchant et al., 2011; Van Dijck et al., 2019). This gap has further widened due to the recent developmental surges of the "AI revolution." Legislative frameworks should strive to keep up with the pace of developing practices as best as possible. Large-scale regulatory measures, such as the EU's Artificial Intelligence Act,<sup>26</sup> are essential steps toward creating a unified framework to help mitigate the risks of AI. As we navigate this uncharted era of technological development, where societal outcomes are often unpredictable, emerging legislative frameworks must be continuously updated with information arising from the implementation of new technologies. Academic scholars bear the heavy responsibility of safeguarding this developmental process, as it is their task to provide comprehensive knowledge on the actual practices and outcomes of these systems.

The AI Act identifies eight high-risk sectors where the implementation of AI technologies poses clear threats to people's safety, livelihoods, and rights. Among these high-risk systems are AI technologies used in employment, worker management, and access to self-employment. An important goal is to ensure that hiring platforms and their algorithmic decision-making processes are subject to appropriate regulation, oversight, and accountability mechanisms. It is equally important to ensure that all recruiting decision-making processes, whether algorithmic or human, are subject to appropriate regulatory measures. Considering both types of decision-making actors is crucial, as my findings suggest that evaluation procedures are increasingly becoming a blend of both, rather than purely algorithmic or human processes.

Furthermore, I argue that end-users of algorithmic evaluation systems should be offered proper opportunities to assess the basis of algorithmic decisions that precede their own evaluations. However, increasing transparency alone may not be the most viable solution, as it places too much pressure on non-experts to understand the core mechanics of algorithmic systems. The real challenge lies in promoting intellectual oversight throughout the process. Based on my findings, labor market institutions are encouraged to offer resources, education, and support to both employers and job seekers to enhance algorithmic awareness and skills, aiming to promote fairness in evaluation practices and

 $<sup>^{26}\,\</sup>mathrm{https://digital\text{-}strategy.ec.europa.eu/en/policies/regulatory\text{-}framework\text{-}ai}$ 

access to professional opportunities. Recruiters are a crucial target group for these educational interventions. On the job-seeker side, older workers, who may lack digital impression management expertise compared to younger digital natives, should also be a focus group of such interventions. This can enhance older workers' employability and ensure that their skills are fully utilized in the labor market (Krings et al., 2021).

Considering the beneficial qualities of interpersonal social networks, my findings should encourage platform providers to explore ways to replicate these advantages—such as trust and the flow of precise and nuanced information—while avoiding adverse effects stemming from network-mediated labor matching. Although I diverge from techno-solutionists, who often overlook the complexities and potential drawbacks of technological solutions, I remain optimistic about technology's potential to reduce labor market frictions and promote equitable and inclusive labor matching. Based on this notion, labor market stakeholders should explore how digital platforms could mitigate the adverse effects of pre-existing social networks and support job attainment for groups that lack such networks, such as immigrant workers. Additionally, platform providers should acknowledge their significant role in shaping societal functions such as labor matching and strive to balance their revenue-generating incentives with a commitment to pro-social values such as fairness, transparency, and accountability.

#### 7.6 Limitations and Directions for Future Research

Although this study yields intriguing results, like all research it has its own set of limitations. While I examined labor matching from multiple angles—an apparent strength of this study-my research design did not encompass all possible perspectives. For instance, my analysis of non-digital interpersonal ties focused solely on the employers' perspective; gathering data from job seekers who utilize non-digital social ties in their job searches might have provided additional valuable insights. Moreover, my examination of interpersonal ties was broad, as my dataset did not allow for an analysis of the differences between various types of interpersonal ties, such as differences between weak ties and strong ties. While I consider all three datasets appropriate for their respective purposes, each has its limitations. The data sample analyzed in Article I was sufficient for the case study approach, but conducting more interviews could have strengthened the foundation for more generalizable theory building (Priya, 2021). The quantitative dataset analyzed in Article II was a large and representative sample of the active labor force, which was a significant strength of the sub-study. However, the cross-sectional design limited the ability to draw causal conclusions about the role of social ties and job attainment. Additionally, the dataset did not include variables related to platform-specific networking behavior or social media usage activity. Although the qualitative dataset analyzed in Article III was theoretically rich and substantial in size, it focused

solely on the perspective of recruiters and did not allow for specific examination of supply-side perspectives.

The generalizability of the results is subject to certain limitations. The primary limitations stem from the qualitatively dominant research design. As qualitative research is inherently subjective, the findings are influenced by the perceptions and interpretations of both the subjectivity of the participants and the subjectivity of the researcher drawing conclusions from the data. Unlike the representative dataset in Article II, the theory-driven sampling methods used in the qualitative datasets did not aim for population-level representativeness, thus limiting the ability to generalize the findings to a broader population. However, both qualitative datasets provided theoretically representative samples that enabled the development and refinement of theories. Despite these limitations, this dissertation enhances our understanding of contemporary labor matching and offers valuable conceptual definitions for future research in this area.

This research has raised many questions that require further investigation. Future studies should focus more on employers' proactive recruitment strategies. A natural progression of this work is to analyze job attainment through the framework of worker visibility, which could yield findings that better reflect the evolving landscape of labor-matching processes. Additionally, further research is needed to understand how job seekers' digital signals and online behavior influence their job prospects. Future studies should specifically explore how these factors interact within the context of algorithmic search and recommendation systems. While algorithmic systems are being examined across various disciplines and contexts, specific studies must study how algorithmic pre-curation mechanisms might impact job seekers' equal opportunities and access to the labor market and recruiters' ability to enact and uphold responsible hiring practices.

#### **SUMMARY IN FINNISH**

Sosiaaliset siteet ovat aina näytelleet keskeistä roolia työn ja työvoiman yhteensovittamisessa. Tämä tutkimus tarkastelee, miten henkilökohtaiset siteet ja sosiaalisen median siteet eroavat toisistaan ammatillisesti relevantin tiedon välittämisessä työnhakijoiden ja työnantajien välillä, ja millä tavalla sosiaaliset siteet kontribuoivat työnantajien harjoittamaan, proaktiiviseen työnhakijoiden etsintään. Sosiaalisten siteiden merkitys työnhaussa ja rekrytoinnissa on ollut pitkään tunnistettu, mutta kehittyvät digitaaliset viestintäteknologiat ovat tuoneet perinteisten, henkilökohtaisten siteiden rinnalle uusia sosiaalisuuden muotoja. Digitaalisten viestintäteknologioiden keskiössä ovat sosiaalisen median alustat, joilla informaatio välittyy verkostomekanismien lisäksi algoritmisten kuratointijärjestelmien ohjaamana. Teoreettisessa viitekehyksessä henkilökohtaisia sosiaalisia siteitä ja sosiaalisen median siteitä tarkasteltiin sosiomateriaalisesta näkökulmasta, jotka toisistaan poikkeavina välittäjinä vaikuttavat välitetyn informaation laatuun ja tekevät työnhakijoita näkyviksi työnantajille poikkeavin tavoin.

Ensimmäisestä osa-artikkelista saadut tulokset osoittavat, että henkilökohtaisten siteiden kautta saatu informaatio on rekrytoinnin näkökulmasta erityisen hyödyllistä, sillä henkilökohtaiset siteet välittävät poikkeuksellisen rikasta ja yksityiskohtaista potentiaalisista työnhakijoista. Vastaavasti sosiaalisen median siteet eivät tyypillisesti välitä vastaavan kaltaista yksityiskohtaista informaatiota. Toisen osa-artikkelin tulokset osoittavat, että sosiaalisen median siteet edistävät työnhakijan todennäköisyyttä tulla rekrytoiduksi työhön sosiaalisen median kautta. Kolmannen osa-artikkelin tulokset osoittavat, että ammatillisilla sosiaalisen median alustoilla sosiaalisen median siteet edistävät työnhakijoiden näkyvyyttä rekrytoijille, sillä alustojen algoritmiset etsintä- ja suosittelutyökalut edistävät laajempia sosiaalisen median verkostojen omaavien työnhakijoiden näkyvyyttä. Samanaikaisesti laajempia sosiaalisen median verkostoja omaavat rekrytoijat kykenevät tavoittamaan laajemman joukon potentiaalisia työnhakijoita.

Sosiaalisen median siteiden näkyvyyttä ja tavoittavuutta edistävistä vaikutuksista huolimatta tulokset osoittavat, että erityisesti ammatillisen sosiaalisen median alustoilla työnhakijoiden ja työnantajien yhteensovittaminen ohjautuu verkostomekanismien sijaan ensisijaisesti algoritmisten etsintä- ja suosittelutyökalujen logiikan ohjaamana. Algoritmiset työkalut mahdollistavat potentiaalisten työnhakijoiden etsimisen sosiaalisen median verkostojen ulkopuolelta, ja sosiaalisen median siteet näyttelevät rekrytoijien harjoittamassa proaktiivisessa työnhakijoiden etsinnässä toissijaista roolia. Algoritmiset työkalut tarjoavat rekrytoijille mahdollisuuksia tavoittaa potentiaalisia työnhakijoita tehokkaasti, mutta kolmannen osa-artikkelin tulokset osoittavat, että rekrytoijien omia päätöksiä edeltävät algoritmiset päätökset eivät tyydytä kaikkia rekrytoijia. Algoritmisten työkalujen taipumus korostaa yksittäisiä datapisteitä työnhakijoiden profiileissa turhauttaa rekrytoijia, jonka lisäksi algoritmisten päätösten läpinäkymättömyys herättää rekrytoijissa huolta päätösten reiluudesta.

Tämä tutkimus kontribuoi tutkimuskirjallisuuteen kolmella tapaa. Ensiksi, tulokset täydentävät olemassa olevaa verkostotutkimusta nostamalla esiin, kuin-

ka henkilökohtaiset sosiaaliset siteet ja digitaaliset sosiaalisen median siteet eroavat toisistaan ammatillisesti relevantin tiedon välittäjinä. Toiseksi, tutkimus tuo ilmi, kuinka viestintäteknologioiden ja algoritmisten rekrytointityökalujen kehitys on mahdollistanut työnantajien siirtymisen kohti proaktiivisia rekrytointikäytäntöjä. Proaktiivisten rekrytointikäytäntöjen keskiössä on kasvavan datamäärän myötä lisääntynyt työvoiman näkyvyys, joka mahdollistaa työnantajien etsiä, tunnistaa ja houkutella potentiaalisia työnhakijoita saatavilla olevasta työvoimasta. Kolmanneksi, tutkimus korostaa, kuinka alustavälitteisillä työmarkkinoilla työn ja työvoiman yhteensovittamisessa alustojen algoritmisten kuratointijärjestelmien rooli korostuu, joka puolestaan vahvistaa alustatoimijoiden valtaa työmarkkinoiden yhteensovittamisessa.

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### **ORIGINAL PAPERS**

Ι

## SOSIAALISET KONTAKTIT JA EPÄMUODOLLINEN TIETO REKRYTOINNISSA – TAPAUSTUTKIMUS RAKENNUSALAN PK-YRITYKSISTÄ

by

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### Matti Laukkarinen

# Sosiaaliset kontaktit ja epämuodollinen tieto rekrytoinnissa – tapaustutkimus rakennusalan pk-yrityksistä

### Tiivistelmä

Artikkelin tutkimuskohteena on sosiaalisten kontaktien hyödyntäminen rekrytoinnissa. Tavoitteena oli selvittää, millaiset työnantajien harjoittamat käytännön toimet liittyvät menestyksekkääseen sosiaalisten kontaktien hyödyntämiseen rekrytoinnissa. Teoreettisessa viitekehyksessä rekrytointiprosessi jaettiin työnhakijoiden keräämisvaiheeseen, seulontavaiheeseen ja työntekijän valintavaiheeseen. Tutkimuksessa haastateltiin kahtatoista rakennusalan pk-yrityksen rekrytoinnista vastaavaa henkilöä. Teemahaastatteluaineisto analysoitiin käyttäen teoriaohjaavaa sisällönanalyysiä. Artikkelissa kuvataan, miten työnantajat hyödyntävät sosiaalisia kontakteja rekrytoinnin eri vaiheissa ja mitkä käytännön toimet liittyvät menestyksekkään sosiaalisten kontaktien hyödyntämiseen. Työnantajat voidaan jakaa kolmeen ideaalityyppiin: passiivisiin, reaktiivisiin ja proaktiivisiin. Tavoitteellisesti ja ennakoivasti sosiaalisia kontakteja hyödyntävät työnantajat hyötyvät sosiaalisista kontakteista kaikissa rekrytoinnin vaiheissa. Passiivisia ja epäjohdonmukaisia toimia harjoittavilla työnantajilla sitä vastoin sosiaalisten kontaktien kautta saadut rekrytointihyödyt jäävät keskimääräistä heikommiksi. Johtopäätöksenä voidaan todeta, että erityisesti yrityksen henkilöstön sosiaaliset verkostot tulisi hahmottaa hyödynnettävänä pääomana, jonka aktivointiin suunnatut investoinnit voidaan muuntaa rekrytointia tukevien hyötyjen kautta taloudelliseksi pääomaksi.

## **Johdanto**

Laajaa huomiota herättäneessä tutkimuksessaan Getting a Job. A Study of Contacts and Careers (1974; 1995) Mark Granovetter toi esiin, että sosiaalisten kontaktien kautta tuleva informaatio voi edistää työnhakijan työllistymistä. Granovetterin uraauurtavan tutkimuksen viitoittamana merkittävä osa verkostotutkimuksesta on kohdistunut siihen, kuinka työnhakijat hyötyvät sosiaalisten kontaktien tuomasta, työmahdollisuuksia koskevasta tiedosta. On tutkittu muun muassa sitä, miten sosiaaliset kontaktit vaikuttavat yksilöiden työllistymiseen, työuralla etenemiseen ja palkkakehitykseen (esim. Lin ym. 1981; Montgomery 1991; Calvó-Armengol & Jackson 2004; Oinas ym. 2018; 2020). Edellä mainituissa tutkimuksissa on tarkasteltu sosiaalisten kontaktien hyötyjä työmarkkinoiden tarjonta- eli työntekijäpuolen näkökulmasta. Työmarkkinoiden kysyntä- eli työnantajapuolen näkökulma on sen sijaan jäänyt huomattavasti vähemmälle huomiolle (ks. kuitenkin Bills 1999; Fernandez ym. 2000; Fernandez & Galperin 2014). Tätä voidaan pitää tutkimuksellisena puutteena, sillä työnantajien harjoittamat työnhakijoita koskevan informaation keräämisja tulkintaprosessit kytkeytyvät vahvasti työllistymisprosesseihin, ja viime kädessä työnantajien rekrytointiin liittyvät valinnat määrittelevät, ketkä saavat töitä ja ketkä eivät (ks. esim. Bills ym. 2017).

Tässä laadullisessa tutkimuksessa kysytään, miten ja missä rekrytoinnin vaiheissa työnantajaorganisaatiot hyödyntävät sosiaalisia kontakteja sekä millaiset työnantajien harjoittamat käytännön toimet liittyvät menestyksekkääseen sosiaalisten kontaktien hyödyntämiseen. Huomio on siis työmarkkinoiden kysyntäpuolella. Tarkastelun kohteena ovat rakennusalalla toimivat pienet ja keskisuuret yritykset. Tutkimus tarjoaa uutta tietoa tavoista, joilla työnantajat voivat rekrytoinnissaan hyötyä sosiaalisissa verkostoissa tapahtuvasta informaation kulusta, sekä käytännön toimista, joilla työnantajat voivat lisätä sosiaalisten kontaktien kautta saatavia rekrytointihyötyjä.

## Rekrytointi prosessina ja käytäntönä

Työnantajien näkökulmasta rekrytointi voidaan tiivistää prosessiksi, jossa työnantajat pyrkivät löytämään ja tunnistamaan työtehtävän vaatimusten ja organisaation kulttuurin kanssa yhteensopivia työntekijöitä (ks. esim. Kristof-Brown 2000). Myös työnhakijat hankkivat rekrytointiprosessin aikana tietoa potentiaalisesta työnantajastaan ja haettavan työn piirteistä (ks. Huilaja 2009). Työnantajilla on enemmän tietoa organisaation sisäisistä piirteistä ja työnhakijoilla puolestaan omista tuottavuuden ja motivaation kaltaisista ominaisuuksistaan. Mitä vähemmän osapuolilla on käytettävissään päätöksentekoa tukevaa, toista osapuolta koskevaa informaatiota, sitä suuremmaksi epäonnistuneen rekrytoinnin riski kasvaa. Riskin minimoimiseksi työnantajat hankkivat mahdollisimman paljon tietoa työnhakijoista. Rekrytointiprosessia voidaan siis kuvata kaksisuuntaiseksi prosessiksi, jossa molemmat osapuolet hankkivat toisesta osapuolesta mahdollisimman paljon päätöksentekoa tukevaa informaatiota.

Tutkimuskirjallisuudessa rekrytointiprosessia on havainnollistettu erilaisten vaiheteorioiden avulla. Rekrytointiprosessin vaiheita ja peruskäsitteitä on määritelty monilla tavoilla (esim. Huilaja 2019, 29–31). Yksinkertaisimmissa määritelmissä rekrytointiprosessi jaetaan seulonnan ja valinnan vaiheisiin. Seulontavaiheessa (screening) työnantajat kokoavat työtehtävään soveltuvien potentiaalisten työnhakijoiden joukon. Sen jälkeen valintavaiheessa (selection) pyritään löytämään kandidaattien joukosta soveltuvimmat henkilöt ja palkkamaan soveltuvimmaksi tulkittu työnhakija (ks. esim. Bills 1988; 1999).

Fevre (1992) on jakanut rekrytoinnin viiteen vaiheeseen. Ensimmäisessä ja toisessa vaiheessa osapuolet etsivät tietoa mahdollisuuksistaan: työnantajat saatavilla olevista työnhakijoista (informing employers) ja työnhakijat olemassa olevista työmahdollisuuksista (informing employees). Kolmannessa ja neljännessä vaiheessa molemmat osapuolet arvioivat tarjolla olevia vaihtoehtoja. Työnantajat arvioivat käytettävissä olevan informaation perusteella työnhakijoita (screening workers) ja valikoivat hakijajoukosta työtehtävään soveltuvimmat henkilöt. Myös työnhakijat hankkivat informaatiota mahdollisesta työnantajasta ja arvioivat (screening employers), kannattaako heidän hyväksyä tarjolla oleva työtehtävä. Viimeisessä vaiheessa osapuolet tekevät hankkimansa informaation pohjalta päätöksen ostaa tai myydä työvoimaa (offer to buy or sell labour).

Barberin (1998) määritelmässä rekrytointiprosessi muodostuu kolmesta vaiheesta. Ensimmäisessä vaiheessa työnantajan on kyettävä tunnistamaan ja houkuttelemaan potentiaalisia työnhakijoita eli "tuottamaan" työnhakijoiden joukko (*generating applicants*). Toisessa vaiheessa työnantajan tulee ylläpitää työnhakijoiden mielen-

kiintoa (*maintaining applicant status*), jotta he jatkavat työnhakuprosessia aina palkkaamispäätökseen asti. Lopuksi työnhakijat päättävät, hyväksyvätkö he työtarjouksen. Työnantajat puolestaan pyrkivät vaikuttamaan hakijoiden päätöksentekoon niin, että heistä soveltuvimmiksi arvioidut hyväksyisivät saamansa työtarjouksen (*influencing job choice*).

Käytännön rekrytointityössä malleissa eritellyt vaiheet eivät välttämättä tapahdu lineaarisesti. Sekä Fevre (1992, 13–15) että Barber (1998, 12–13) ovat todenneet, että käytännössä siirtymät vaiheiden välillä eivät ole yksiselitteisiä ja vaiheet voivat tapahtua yhtäaikaisesti. Rekrytoinnin vaiheteorioita tiivistäen rekrytointi hahmotetaan tässä tutkimuksessa prosessiksi, jossa työnantajan näkökulmasta keskeisimmät vaiheet muodostuvat 1) potentiaalisten työnhakijoiden joukon keräämisestä, 2) työnhakijajoukon karsimisesta eli seulonnasta, ja 3) soveltuvimmaksi tulkitun työnhakijan valinnasta. Lähtökohtana on, että vaiheet voivat tapahtua epälineaarisesti ja päällekkäin.

## Epämuodollinen tieto rekrytointiprosessissa

Sosiaalisiin kontakteihin ja epämuodolliseen tietoon perustuvaa epämuodollista rekrytointia (informal recruiting) on yleensä tarkasteltu muodollisesta rekrytoinnista (formal recruiting) erillisenä (esim. Rees 1966). Muodollisessa rekrytoinnissa työnantajat voivat hankkia tietoa potentiaalisista työnhakijoista ei-henkilökohtaisten välittäjien (esim. työnvälityspalveluiden, työpaikkailmoitusten ja rekrytointitoimeksiantojen) kautta. Muodolliset rekrytointikanavat tavoittavat usein laajan joukon työnhakijoita mutta vaativat työnantajalta resursseja työnhakijoiden seulonta- ja valintavaiheissa (ks. Gërxhani & Koster 2015). Epämuodollisessa rekrytoinnissa hyödynnetään sosiaalisten kontaktien välityksellä leviävää epämuodollista tietoa (esim. Marsden & Gorman 2001). Työnantajat voivat vastaanottaa rekrytointia tukevaa informaatiota periaatteessa keneltä tahansa, mutta tyypillisesti suosituksia saadaan yrityksen omalta henkilöstöltä (ks. Fernandez ym. 2000). Epämuodollista rekrytointia on pidetty kustannustehokkaana ja onnistuneita rekrytointeja tuottavana, mutta tavoitettujen työnhakijoiden määrä on useimmiten pienempi kuin muodollisessa rekrytoinnissa. Näin ollen epämuodollinen rekrytointi ei todennäköisesti kykene yksin vastaamaan kaikkiin organisaation rekrytointitarpeisiin (Mencken & Winfield 1998).

Epämuodollista rekrytointia käsittelevässä kirjallisuudessa on esitetty erilaisia hypoteeseja siitä, miksi työnantajat saavat sosiaalisten kontaktien kautta poikkeuksellisen rikasta ja luotettavaa informaatiota. Ensinnäkin, suositellut työnhakijat ovat "esiseulottuja" henkilöitä, koska omasta maineestaan kiinnostuneet suosittelijat pyrkivät suosittelemaan työnantajalle vain soveltuviksi arvioimiaan henkilöitä (esim. Smith 2005). Toiseksi, työnantajat saavat kontaktiensa kautta tietoa työnhakijan vaikeasti mitattavista ominaisuuksista (ks. Fernandez & Weinberg 1997). Työnhakijan henkilökohtaisesti tuntevilla suosittelijoilla voi esimerkiksi olla tämän persoonaan liittyvää tietoa, jota ei välttämättä ole mahdollista saada muiden rekrytointikanavien kautta (ks. Pallais & Sands 2016). Yrityksessä työskentelevät suosittelijat välittävät myös työnhakijalle organisaatiota koskevaa informaatiota, jonka perusteella työnhakija voi itse arvioida soveltuvuuttaan työtehtävään (Saks 1994). Kolmanneksi, ihmisten sosiaaliset verkostot muodostuvat usein samankaltaisista, itseä muistuttavista henkilöistä (homofilia, ks. McPherson ym. 2001; Fernandez & Galperin 2014). Näin ollen työnantajat arvioivat työnhakijaa suosittelijan ominaisuuksien perusteella – organisaatiokulttuurin kanssa yhteensopivan työntekijän suosittelema työnhakija todennäköisesti sopeutuu organisaation kulttuuriin ja vaatimuksiin (Hensvik & Skans 2016). Neljänneksi, henkilöstön suositteluiden perusteella palkatut työntekijät suoriutuvat työstään keskimääräistä menestyksekkäämmin, sillä organisaation sisäiset sosiaaliset siteet lisäävät työntekijöiden työtyytyväisyyttä, motivaatiota ja sitoutumista (esim. Moser 2005). Organisaation sisäiset sosiaaliset kontaktit eivät siis ainoastaan ennusta työnhakijan soveltuvuutta työtehtävään, vaan ne edistävät tuottavuutta myös rekrytoinnin jälkeen (Castilla 2005).

Myös empiirissä tutkimuksissa on havaittu epämuodollisen rekrytoinnin tuottavan hyötyjä rekrytointivaiheen jälkeisiin lopputuloksiin. Eräiden tutkimusten mukaan henkilöstön suositteluiden kautta palkatut henkilöt pysyvät työnantajan palveluksessa pidempään kuin muiden kanavien kautta rekrytoitu henkilöstö (Loury 2006; Brown ym. 2016). Epämuodollinen rekrytointi voi siis vähentää henkilöstön vaihtuvuutta. Eri toimialoilla toteutuneita rekrytointeja vertailleet Burks ja kumppanit (2015) puolestaan havaitsivat, että logistiikka-alalla henkilöstön suositteluiden kautta palkatut työntekijät joutuivat liikenneonnettomuuksiin harvemmin kuin muu henkilöstö ja teknologia-alalla suositellut työntekijät olivat muuta henkilöstöä innovatiivisempia.

Erilaisissa työmarkkina- ja kulttuurikonteksteissa toimivien työnantajien on todettu suosivan rekrytointityössään sosiaalisia kontakteja vaihtelevasti. Esimerkiksi työmarkkinoilla käytettävissä olevien muodollisten rekrytointikanavien tehokkuus voi vaikuttaa siihen, missä määrin organisaatiot hyödyntävät rekrytoinnissaan epämuodollisia kanavia (Pellizzari 2010). Myös sosiaalisten normien kaltaiset kulttuurisidonnaiset tekijät ovat yhteydessä siihen, missä määrin työnantajat ja -hakijat hyödyntävät työnhaussaan sosiaalisia kontakteja (Sharone 2014). Rekrytointikanavien käyttöön vaikuttavat myös organisaation yksilölliset piirteet. Suurten yritysten on todettu suosivan suhteellisesti enemmän muodollisia rekrytointikanavia (Kotey & Sheridan 2004). Tämän on katsottu johtuvan erityisesti siitä, että organisaation koon kasvaessa sen toimintakäytännöt muuttuvat usein hierarkkisemmiksi, strategisemmiksi ja helpommin dokumentoitaviksi. Pienissä ja keskisuurissa yrityksissä aidosti strategiset henkilöstökäytännöt ovat harvinaisempia, ja rekrytointikäytäntöjä ohjaavat niissä usein avainpositioissa toimivien henkilöiden näkemykset (Cassell ym. 2002). Yleistäen voidaan todeta, että suuriin yrityksiin verrattuna vähemmän resursseja omaavat pk-yritykset suosivat enemmän kustannustehokkaaksi ja toimivaksi tulkittua epämuodollista rekrytointia (esim. Carroll ym. 1999).

## Aineisto ja menetelmät

### **Tutkimusaineisto**

Tutkimuksen aineisto koostuu puolistrukturoiduista teemahaastatteluista. Rakennusalalle kohdistetut haastattelut toteutettiin vuonna 2018, jolloin rakennusala oli Suomessa eniten rekrytointiongelmia kokeva sekä uusia työpaikkoja luova toimiala (Räisänen 2020). Rakennusala on selkeästi pienyritysvaltainen toimiala: Tilastokeskuksen ylläpitämän alueellisen yritystoimintatilaston mukaan vuonna 2018 rakennusalalla toimivista yrityksistä noin 90 prosenttia oli alle 10 henkilöä työllistäviä mikroyrityksiä (SVT: Alueellinen yritystoimintatilasto). Toisin sanoen selvä enemmistö rakennusalan yrityksistä edustaa kokoluokkaa, jossa yksittäisen palkkaamispäätöksen merkitys on suhteellisesti korkea mutta rekrytointikäytännöt ovat tyypillisesti hajanaisia (Cassell ym. 2002). Rekrytoinnin näkökulmasta rakennusalan erityispiirteenä voidaan pitää alan suhdanne- ja kausiherkkyyttä, minkä takia toi-

mialan työnantajat joutuvat tasapainottelemaan vaihtelevien työvoiman yli- ja alitarjontakausien välillä. Rakennusalan työvoiman kysyntätilanne on eriytynyt voimakkaasti myös alueellisesti: korkean suhdanteen aikana työvoimapulaa koetaan erityisesti pääkaupunkiseudulla (ks. Keskinen ym. 2020). Kaikki tutkimukseen osallistuneet yritykset harjoittivat toimintaansa alueilla, joissa työvoiman kysyntä oli haastatteluiden tekohetkellä keskisuurta tai suurta.

Haastattelupyynnöt kohdennettiin rakennusalalla toimiviin pieniin ja keskisuuriin yrityksiin. Haastateltaviin otettiin yhteyttä puhelimitse, ja puhelun aikana pyrittiin sopimaan aika kasvokkain tapahtuvalle haastattelulle. Lopullinen aineisto koostui kahdestatoista rakennusalan pienessä tai keskisuuressa yrityksessä¹ työskentelevän henkilön haastattelusta. Haastateltavien edustamien yritysten henkilöstömäärät vaihtelivat 12 henkilöstä 77 henkilöön (ka. 43 henkilöä), ja kaikki yritykset harjoittivat pääasiallisena toimialanaan asuinrakentamista. Haastatteluiden kestot vaihtelivat 45 minuutista puoleentoista tuntiin. Rakennusalalla vallitsevaa sukupuolijakaumaa heijastaen haastateltavien joukko oli miesvaltainen: tutkimukseen osallistuneista henkilöistä 11 oli miehiä. Kaikilla haastateltavilla oli kokemusta epämuodollisesta rekrytoinnista, joten aineistoa voitiin pitää tutkittavan ilmiön kannalta olennaista informaatiota sisältävänä (Tuomi & Sarajärvi 2018).

Kaikki haastateltavat olivat niin kutsuttuja rekrytoivia esimiehiä eli päätoimisten työtehtäviensä ohessa rekrytointia harjoittavia henkilöitä. Haastateltavista kahdeksan työskenteli rakennusurakointia harjoittavassa yrityksessä ja neljä rakennusuunnittelua tai –konsultointia harjoittavassa yrityksessä. Haastateltavista kuusi vastasi yrityksessään pelkästä toimihenkilötason (esim. rakennusinsinöörit, projekti-insinöörit ym.) rekrytoinnista ja kuusi toimihenkilötason rekrytoinnin lisäksi myös työntekijätason (esim. rakennustyöntekijät, putkiasentajat ym.) rekrytoinnista. Kaikilla haastateltavilla oli kokemusta vakituiseen työsuhteeseen palkattavien työntekijöiden rekrytoinnista; määräaikaisiin työsuhteisiin palkattavien rekrytoinnista oli kokemusta vain osalla. Rekrytointipäätökseen liittyvän riskin näkökulmasta tarkastelu rajattiin vakituisiin työsuhteisiin tehtyihin rekrytointeihin,

<sup>1</sup> Pienen ja keskisuuren yrityksen määritelmän mukaisesti haastateltavien edustamien yritysten henkilöstömäärät vaihtelivat yli kymmenestä henkilöstä alle 250 henkilöön (Tilastokeskus: Pienet ja keskisuuret yritykset).

minkä vuoksi haastateltavia kannustettiin kertomaan erityisesti vakituiseen työsuhteeseen palkattavien työntekijöiden ja toimihenkilöiden rekrytointiin liittyvistä kokemuksista.

Tutkimuskirjallisuuteen nojaten haastatteluita varten laadittiin teemahaastattelurunko, jonka teemat painottuivat epämuodollisen rekrytoinnin kannalta keskeisiin kysymyksiin: Kuinka työnantajat suhtautuvat epämuodolliseen rekrytointiin? Miten ja missä rekrytoinnin vaiheissa työnantajat pyrkivät hyödyntämään sosiaalisia kontakteja? Keneltä työnantajat vastaanottavat suosituksia? Millaisissa tilanteissa sosiaalisten kontaktien hyödyntäminen oli tulkittu onnistuneeksi toimintamuodoksi? Ennalta valmistellusta teemahaastattelurungosta huolimatta haastattelutilanne pyrittiin pitämään mahdollisimman joustavana, ja haastateltaville pyrittiin antamaan mahdollisimman paljon tilaa kuvata omia kokemuksiaan. Nauhoitetut haastattelut litteroitiin sanatarkasti, ja ne esianalysoitiin mahdollisimman pian haastattelui jälkeen. Näin pyrittiin varmistamaan, että haastattelurungossa mahdollisesti sivuutetut mutta haastatteluissa ilmenevät teemat voitiin ottaa käsiteltäviksi myöhemmissä haastatteluissa.

Työelämän yksityisyydensuojaa koskevan lainsäädännön mukaan työnantajan tulee kerätä työnhakijaa koskevaa henkilötietoa lähtökohtaisesti työnhakijalta itseltään (Laki yksityisyydensuojasta työelämässä 759/2004 4 §). Ilman työnhakijan lupaa muista lähteistä tapahtuva henkilötietojen kerääminen voidaan tulkita lainvastaiseksi toiminnaksi. Aiheen arkaluontoisuuden vuoksi aineiston käsittelyssä kiinnitettiin erityistä huomiota tutkittavien anonymiteetin takaamiseen. Ennen haastatteluiden tekoa oli odotettavissa, että aihepiiriin liittyvät juridiset rajoitteet saattaisivat vaikuttaa haastateltavien vastaamishalukkuuteen. Tämän vuoksi haastattelutilanteissa korostettiin, että kyseessä oli vaitiolovelvollisuuden alainen anonyymi tilanne. Juridisesti arkaluontoisten teemojen yhteydessä aihepiiriä pyrittiin käsittelemään tarvittaessa epäsuorien kysymysten kautta (ks. Fisher 1993). Haastattelutilanteiden edetessä useimmat haastateltavat keskustelivat aiheesta avoimesti. Ei ilmennyt mitään siihen viittaavaa, että yksikään haastateltava olisi antanut omasta rekrytointitoiminnastaan tietoisesti valheellista kuvaa.

#### Tutkimusmenetelmät

Analyysiprosessia voidaan tiivistäen kuvata teoriaohjaavaksi sisällönanalyysiksi, joka eteni ensisijaisesti aineistolähtöisesti, mutta myös osittain aikaisempaan teoriaan suhteuttaen (Tuomi & Sarajärvi 2018). Analyysin myöhemmissä vaiheissa kiinnitettiin vuorottelevasti huomiota siihen, millä tavalla aineistosta esiin nostetut ilmiöt kytkeytyivät aikaisempaan tutkimuskirjallisuuteen. Puolistrukturoiduille aineistoille tyypillisesti haastatteluaineiston analysointi aloitettiin teemoittelusta, joka toimi pohjana analyysin keskeisimpänä tuloksena muodostetulle kolmijakoiselle ideaalityypittelylle (Eskola & Suoranta 1998, 130–132).

Analyysiprosessi jakautui kolmeen vaiheeseen. Ensimmäisessä vaiheessa aineistoa käytiin läpi mahdollisimman aineistolähtöisesti. Haastateltavat puhuivat rekrytointikanaviin liittyvistä kokemuksistaan laaja-alaisesti, ja aluksi aineistoa redusoitiin niin, että sosiaalisten kontaktien hyödyntämiseen liittyvä puhe eroteltiin tutkimustehtävän kannalta epäolennaisesta aineistosta. Aineistossa toiston kautta esiin nousseet teemat kirjattiin ylös. Nämä teemat perustuivat haastateltavien kuvauksiin sosiaalisten kontaktien hyödyntämistilanteista ja erityisesti tilanteista, jotka nähtiin rekrytoinnin näkökulmasta onnistuneena toimintamuotona. Analyysin toisessa vaiheessa aineistoa tarkasteltiin aikaisempaa teoriaa silmällä pitäen. Huomiota kiinnitettiin siihen, missä rekrytoinnin vaiheissa sosiaalisia verkostoja hyödynnetään ja keneltä työnantajat vastaanottavat rekrytointia tukevaa informaatiota. Rekrytoinnin vaiheteorioita mukaillen (ks. Fevre 1992; Barber 1998) tarkasteltiin, hyödynnetäänkö sosiaalisia kontakteja työnhakijajoukon keräämisessä, työnhakijoiden seulonnassa vai työntekijän valinnassa.

Toisessa vaiheessa tehtyjen huomioiden pohjalta analyysin kolmannessa vaiheessa kiinnitettiin erityistä huomiota siihen, millä tavalla työnantajan harjoittamat käytännön toimet olivat haastateltavien mukaan yhteydessä onnistuneisiin sosiaalisten kontaktien hyödyntämistilanteisiin. Tarkastelun pohjalta muodostettiin ideaalityyppinen luokittelu: sosiaalisia kontakteja rekrytoinnissaan hyödyntävät työnantajat jaettiin harjoitettujen käytännön toimien perusteella kolmeen tyyppiin (ks. esim. Koivunen 2017). Todellisuudessa tyyppien rajat voivat olla esitettyä liukuvampia, mutta tyypittelyn avulla voidaan tiivistetysti nostaa esiin tutkittavan ilmiön kannalta keskeisiä piirteitä.

## Sosiaalisten kontaktien rekrytointihyödyt

Tässä tulososiossa esitellään kolme keskeisintä tapaa, joilla työnantajat voivat hyödyntää sosiaalisia kontakteja rekrytoinnin tukena. Jokaisen tavan yhteydessä kerrotaan, mihin rekrytoinnin vaiheeseen sosiaalisten kontaktien hyödyntämistilanne liittyy ja keneltä rekrytointia tukevaa informaatiota tyypillisimmin vastaanotetaan. Tämän jälkeen tarkastellaan, millä tavalla analyysissa aineistolähtöisesti keskeisiksi nousseet, henkilöstöön kohdistuvat aktivointitoimet kytkeytyvät sosiaalisten kontaktien hyödyntämiseen. Lopuksi esitellään teemojen vertailuun pohjautuva tyypittely, jossa sosiaalisia kontakteja hyödyntävät työnantajat jaetaan epämuodolliseen rekrytointiin liittyvien käytännön toimien perusteella kolmeen luokkaan.

### Työnhakijoiden houkuttelu

Haastateltavat kuvasivat tilanteita, joissa työnantaja ja yrityksen henkilöstö oli välittänyt sosiaalisille kontakteilleen myönteistä työnantajamielikuvaa edustamastaan yrityksestä. Tämän odotettiin lisäävän yritykseen yhteydessä olevien työnhakijoiden määrää. Työnantajat ja työntekijät saattoivat levittää myönteistä työnantajamielikuvaa tuttavilleen tahattomasti normaalin vuorovaikutuksen yhteydessä, mutta he saattoivat jakaa tuttavilleen myönteistä työnantajamielikuvaa myös tietoisesti ja tarkoitushakuisesti.

Paljon on työntekijöitä, ketkä puhuu omasta työnkuvasta ja työtehtävästään tuttavapiirilleen, kaveripiirilleen ja harrastepiirilleen, ja sitä kautta on niitäkin kyllä tullut. Mäkin oon kehunut tosi paljon kavereille tätä työpaikkaa, että totta kai se sekin alkaa kiinnostamaan tietyllä tavalla jota kuta, että millainen työpaikka ja mitähän työtehtäviä [yrityksellä on], että häntä kiinnostaisi tulla ja haenpas sinne. (Yritys 1)

Tietoista työnantajamielikuvan levittämistä voidaan pitää sosiaalisten kontaktien kautta toteutettuna työnhakijoiden houkutteluna (*applicant attraction*) (ks. Rynes & Barber 1990; Van Hoye & Lievens 2009). Haastateltavien mukaan työnantajat pyrkivät hyödyntämään työnhakijoiden houkuttelussa ensisijaisesti yrityksen henkilöstöä ja heidän sosiaalisia kontaktejaan. Henkilöstö nähdään luontevaksi kanavaksi, koska henkilöstön sosiaalisten verkostojen oletetaan muodostuvan suurelta osin rakennusalan toimijoista eli potentiaalisista työnhakijoista. Haastateltavien mukaan

työnhakijoiden houkuttelua voidaan näin kohdistaa tehostetusti oikealle kohderyhmälle. Tämä toteutuu esimerkiksi työntekijöiden jakaessa yritystä koskevaa informaatiota omissa sosiaalisen median kanavissaan:

Kyllä ja niin se just menee, sitten kun työntekijät tai tutut siellä somessa jakaa niitä postauksia niin se leviää, ja sittenhän se helposti leviää just oikeaan kanavaan tai oikeaan kohderyhmään. Et sehän siinä on hyvä. (Yritys 7)

Haastateltavien mukaan myönteisen työnantajamielikuvan levittämisen hyötyjen tarkka arviointi oli hankalaa, sillä useinkaan rekrytointiprosessin aikana ei käy ilmi, miksi työnhakija hakee kyseistä työtehtävää. Kontaktien kautta toteutetun työnhakijoiden houkuttelun arvioitiin kuitenkin lisäävän yritykseen yhteydessä olevien työnhakijoiden määrää.

### Potentiaalisia työnhakijoita koskevat suositukset

Jokaisella haastateltavalla oli kokemusta tilanteista, joissa työnantajan tuttava oli oma-aloitteisesti suositellut hänelle potentiaalista työnhakijaa. Sosiaaliset kontaktit voivat suositella potentiaalista työnhakijaa, vaikka yritys ei kyseisellä hetkellä pyrkisi aktiivisesti rekrytoimaan uutta henkilöstöä. Näissä tilanteissa suosituksen hyödyntämispotentiaali saatetaan nähdä niin arvokkaaksi, että henkilö rekrytoidaan, vaikka akuuttia tarvetta uudelle työvoimalle ei juuri sillä hetkellä olisikaan.

No joo kyllä niitä [suosituksia] on tullut. On ollut esimerkiksi semmoisia, että on vinkattu, että joku [rakennusalan työntekijä] olisi halukas vaihtamaan paikkakuntaa, mutta ei ole työpaikkaa. Eli jos löytyisi työpaikka, niin voisi vaihtaa paikkakuntaa. Tämän tyyppisiä on kyllä ollut. (Yritys 7)

Haastateltavien mukaan työnantajat vastaanottavat potentiaalisia työnhakijoita koskevia suosituksia omalta henkilöstöltä, rakennusalan tuttavilta ja yhteistyö-kumppaneilta sekä työkontekstin ulkopuolisilta tuttavilta. Eniten suosituksia saadaan omalta henkilöstöltä. Henkilöstön keskeinen rooli selittynee suurelta osin rakennusalalle tyypillisillä alihankintaprosesseilla², joiden seurauksena alan työn-

<sup>2</sup> Alihankinnalla tarkoitetaan ulkopuolisen yrityksen palkkaamista tarjoamaan jokin liiketoiminto osatekijöineen (Tilastokeskus: Alihankinta).

tekijät kommunikoivat arkisessa työssään tiiviisti kilpailevissa yrityksissä työskentelevän henkilöstön eli potentiaalisten työnhakijoiden kanssa. Tämä kanssakäyminen tarjoaa hyvän mahdollisuuden molemminpuoliselle tiedonvaihdolle:

No kyllä se varmaan oma henkilöstö on [joilta hakijoita koskevia suosituksia saadaan]. Että meidän omat toimihenkilöt toimivat tietenkin useimmin työnantajan palveluksessa ja omaavat kokemusta. Niin kun sanottu tämä on aika pieni ala, että kyllä siellä melkein ihmiset tuntee toisensa ja kyllä sieltä meidänkin työntekijöistä yleensä löytyy joku, joka tietää sen hakijan. (Yritys 3)

Kontakteilta on mahdollista saada tietoa, jota on vaikea hankkia esimerkiksi työhaastattelutilanteessa (ks. Pallais & Sands 2016). Useat haastateltavat mainitsivat työnhakijan persoonaan liittyvät ominaisuudet eli niin kutsutun "asenteen" yhdeksi tärkeimmistä rekrytointiin vaikuttavista kriteereistä. Perinteinen työhaastattelutilanne koettiin virhearvioinneille alttiiksi erityisesti persoonaa koskevissa asioissa. Sosiaalisten kontaktien kautta tätä rekrytoinnin kannalta arvokasta tietoa oli mahdollista saada:

Ehkä tulee tuosta vinkkailusta mieleen just tämä viimeisin värväys. Pari tuttua ukkoa sanoi, saman kylän miehiä, niin sanoi, että hän on ahkera ukko. Että se ei ollut kenellekään ennalta tuttu, se oli ollut vähän eri hommissa. Niin siinä oli vinkkaa-mista, että voisi olla hyvä ukko hommiin ja muuta. Sehän ei ollut sellainen mikään ammattilainen, mutta lähinnä siitä asenteesta. (Yritys 8)

Edellisessä sitaatissa mainittu työnhakija oli siis päätetty palkata työtehtävään huolimatta siitä, että kyseessä oli ennalta tuntematon työnhakija, jolla ei ollut juurikaan tehtävään liittyvää työkokemusta. Kontaktien kautta saatu informaatio voi luoda luottamusta työnhakijaan tilanteessa, jossa esimerkiksi ansioluettelosta näkyvät tiedot eivät anna luottamukselle perusteita (ks. Granovetter 2005).

Sosiaalisten kontaktien kautta oli mahdollista saada myös yksityiskohtaista tietoa kilpailevien yritysten sisäisistä tilanteista. Tätä tietoa voitiin hyödyntää kilpailevien yritysten henkilöstöön kohdistuviin täsmärekrytointeihin:

Jos joku hyvä tuttu vaikka kertoo, että siellä joku hyvä timpuripari etsii uutta työpaikkaa, ja he ovat tyytymättömiä nykyiseen firmaan, johonkin olosuhteisiin tai johonkin. Usein voi olla henkilöjuttuja, että ei tule esimerkiksi esimiehensä kanssa

juttuun. Oon mä joskus sanonutkin [suosittelijalle], että en mä rupea niille soittelee, mutta jos niitä kiinnostaa, niin meillä on kyllä töitä. (Yritys 5)

Uzzin (1999) mukaan edellä mainitun kaltaista yksityistä informaatiota (*private information*) on mahdollista saada erityisesti sosiaalisten kontaktien kautta. Strategista hyödyntämispotentiaalia omaava yksityinen informaatio voidaan erottaa yleisesti saatavilla olevasta julkisesta informaatiosta (*public information*), jonka tarjoama kilpailuetu on laajan tavoittavuutensa vuoksi heikompaa. Uzzia mukaillen muodolliset rekrytointikanavat voidaan määritellä julkista informaatiota välittäviksi mediaattoreiksi. Kontaktien kautta vastaanotettu, kilpailevien yritysten sisäisiä tilanteita koskeva informaatio on puolestaan esimerkki strategista etua omaavasta yksityisestä informaatiosta.

### Työntekijän valintaa tukevat arviot

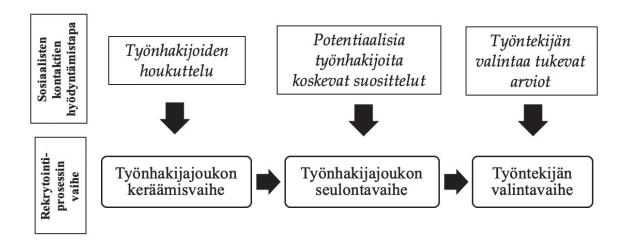
Pyytämättä vastaanotettujen suositusten lisäksi työnantajat voivat hankkia tietoa työnhakijoista oma-aloitteisesti sosiaalisten kontaktiensa kautta. Oma-aloitteinen tiedon hankinta saattaa liittyä esimerkiksi tilanteeseen, jossa työnantaja pyrkii hankkimaan lisäinformaatiota rekrytoinnin loppuvaiheen palkkaamispäätöksen tueksi. Näissä tilanteissa työnantajat voivat tiedustella kontakteiltaan työnhakijan soveltuvuuteen ja kompetenssiin liittyviä arvioita. Haastateltavien mukaan tyypillisimmin työnhakijoita koskevia arvioita pyydetään omalta henkilöstöltä:

Omilta asentajilta kysyn, koska mä tiedän, että ne eivät halua ketään paskaa asentajaa tähän firmaan töihin. Niin sieltä saa rehellisen mielipiteen sitten. Että monesti on sanottu, että älä palkkaa. Että parempi, ettet palkkaa. Mutta sitten taas tuolta on tullut paljon semmoista, että tässä on hyvä kaveri, että heti paikalla työsopimus. (Yritys 10)

Sosiaalisilta kontakteilta saatujen arvioiden luotettavuus riippuu vahvasti siitä, kuinka hyvin kontaktit ovat oletettavasti perillä tarjolla olevan työtehtävän vaatimuksista. Yrityksen työntekijät koetaan luotettavaksi arvioiden lähteeksi, sillä heidän uskotaan olevan perillä työn vaatimuksista ja osaavan näin arvioida työnhakijan soveltuvuutta. Työntekijöiden arvioihin luotetaan myös siksi, että heidän uskotaan olevan työnantajalleen lojaaleja ja yrityksen kokonaistilanteesta aidosti kiinnostu-

neita. Työnantajaa kohtaan osoitettu solidaarisuus voi siis toimia henkilöstöltä vastaanotetun informaation luotettavuutta parantava tekijänä (ks. Van Hoye 2013).

Työnantajat voivat käyttää edellä esiteltyjä sosiaalisten kontaktien hyödyntämistapoja rekrytoinnin eri vaiheissa eli työnhakijajoukon keräämisvaiheessa, työnhakijoiden seulontavaiheessa sekä työnhakijan valintavaiheessa. Sosiaalisten kontaktien hyödyntämistavat eri rekrytoinnin vaiheissa on esitetty tiivistetysti kuviossa 1.



Kuvio 1. Sosiaalisten kontaktien hyödyntämistavat rekrytoinnin eri vaiheissa (Fevreä 1992 ja Barberia 1998 mukaillen)

Kaikissa rekrytointiprosessin vaiheissa työnantajat hyötyvät eniten yrityksen henkilöstöstä ja heidän sosiaalisista kontakteistaan. Työnhakijoiden houkuttelussa henkilöstö nähdään luontevaksi kanavaksi, koska henkilöstön sosiaalisten verkostojen oletetaan muodostuvan suurelta osin rakennusalan toimijoista eli potentiaalisista työnhakijoista. Työnhakijoiden seulonta- ja valintavaiheessa henkilöstön kontakteja hyödynnetään, koska henkilöstöllä uskotaan olevan tarvittavaa tietoa sekä työntekijän vaikeasti mitattavista ominaisuuksista että tarjolla olevan työtehtävän vaatimuksista. Kaikissa vaiheissa henkilöstön nähdään toimivan ideaalissa välittäjäpositiossa.

### Henkilöstöä osallistavat aktivointitoimet

Sosiaalisten kontaktien hyödyntämistä voidaan tarkastella työnantajan harjoittamien käytännön toimien näkökulmasta. Tällöin havaitaan, että epämuodollisessa rekrytoinnissa onnistuminen riippuu pitkälti siitä, kuinka tehokkaasti työnantaja kykenee aktivoimaan henkilöstöä mukaan yrityksen rekrytointitoimintaan. Haastateltavien kuvauksista oli pääteltävissä, että osa työnantajista hahmottaa sosiaalisten kontaktien kautta saatavat rekrytointihyödyt sattumanvaraisiksi ja yrityksen toimista riippumattomiksi. Nämä työnantajat eivät kannusta henkilöstöään informaation jakamiseen. Osa työnantajista puolestaan näkee sosiaaliset verkostot ikään kuin hyödynnettävänä pääomana, joten niiden aktivointiin kannattaa investoida niin taloudellisia kuin organisatorisia resursseja (ks. myös Fernandez ym. 2000). Nämä työnantajat kannustavat henkilöstöä rekrytointia tukevan informaation jakamiseen erilaisilla aktivointitoimilla.

Haastateltavat kertoivat kahdenlaisesta tavasta aktivoida henkilöstöä. Tyypillinen toimenpide on "vinkkipalkkio": henkilöstölle maksetaan rekrytointiin johtavasta suosittelusta rahallinen palkkio. Käytännön toimena tämä tarkoitti sitä, että työnantajat maksavat suositteluita jakaville työntekijöille rahallisen "bonuspalkkion":

Oikeastaan paras kanava, mikä nyt on keksitty, meillä on vinkkipalkkio nykyisille asentajille. Se on parhaiten toiminut, koska kyllähän ne keskustelevat nuo asentajat keskenään. Ja niillä kuitenkin on, enhän minä tunne kaikkia asentajia tältä alueelta, mutta asentajat tuntevat ristiin toisiaan. Eli saadaan sellainen ketju mahdollisimman pitkäksi sitä kautta, se on toiminut parhaiten. (Yritys 10)

Toinen aktivointitapa on osallistaa henkilöstöä yrityksen rekrytointitoimintaan. Työnantajat tiedottavat työntekijöitä säännöllisesti yrityksen rekrytointitilanteesta ja kannustavat heitä suositteluiden jakamiseen:

No kyllä me siis pyritään käyttämään niin paljon epämuodollisia suhteita, kun vaan pystyy. Eli käytännössä toimitusjohtaja yleensä sanoo, kun se pitää kuukausittain kuukausipalaverin, niin siinä käydään aina markkinatilanne ja käydään suurimmat projektit mitä on tarjottu. Ja siellä sitten hän yleensä sanoo, että hei meille on tulossa näin ja näin iso projekti, ja tähän olisi hyvä saada jo nyt valmiiksi [työntekijöitä], että vaikka tämä on vasta puolen vuoden päästä tulossa, niin olisi hyvä saada

porukkaa. Niin nyt kysytte kaikki hyvät tyypit tuolta kentältä ja kavereista ja pyydätte töihin. (Yritys 12)

Haastateltavan edustamassa yrityksessä työnantaja jakaa työntekijöille ennakoivasti tietoa yrityksen työtilanteesta, jotta he voivat levittää tietoa eteenpäin tuttavapiirissään. Henkilöstön aktivointiin voidaan siis panostaa sekä taloudellisia että organisatorisia resursseja.

### Rekrytoijien ideaalityypit

Sosiaalisten kontaktien hyödyntämiseen liittyvien toimien perusteella työnantajat jaettiin ideaalityyppisesti kolmeen luokkaan, jotka on esitelty taulukossa 1. Tyypittelyn perustana toimivat haastateltavien kuvaukset tilanteista, joissa sosiaalisia kontakteja hyödynnettiin rekrytoinnin tukena ja joissa tämä nähtiin menestyksekkääksi toimintamuodoksi. Kuvauksia tarkasteltiin suhteessa työnantajan harjoittamiin käytännön toimiin sekä henkilöstöön kohdistuviin kannustustoimenpiteisiin. Tältä pohjalta työnantajat tyypiteltiin passiivisiin, reaktiivisiin ja proaktiivisiin. Todellisuudessa tyyppien rajat voivat olla liukuvia, mutta tyypittelyn avulla voidaan kuvata tiivistetysti, mitkä toimet erottavat toisistaan sosiaalisia kontakteja menestyksekkäämmin ja heikommin hyödyntäviä työnantajia.

Taulukko 1. Sosiaalisia kontakteja hyödyntävien työnantajien ideaalityypit

	PASSIIVISET	REAKTIIVISET	PROAKTIIVISET
Työnhakijajoukon keräämisvaihe	Eivät jaa tuttavilleen myönteistä työnantajamielikuvaa	Eivät jaa tuttavilleen myönteistä työnantajamielikuvaa	Jakavat tuttavilleen tietoisesti myönteistä työnantajamielikuvaa
			Kannustavat henkilöstöä työnhakijoiden houkutteluun
Työnhakijajoukon seulontavaihe	Eivät kannusta henkilöstöä suositteluiden jakamiseen	Kannustavat henkilöstöä epäjohdonmukaisesti suositteluiden jakamiseen	Kannustavat henkilöstöä systemaattisesti suositteluiden jakamiseen
	Eivät maksa henkilöstölle vinkkipalkkioita	Saattavat maksaa henkilöstölle vinkkipalkkioita	Maksavat henkilöstölle vinkkipalkkioita
Työntekijän valintavaihe	Eivät hanki tietoa työnhaki- joista sosiaalisten kontaktiensa kautta	Eivät hanki tietoa työnhaki- joista sosiaalisten kontaktiensa kautta	Hankkivat oma-aloitteisesti tietoa työnhakijoista sosiaalisten kontaktiensa kautta

Sosiaalisten kontaktien rekrytointihyötyihin varauksellisesti suhtautuvien *passiivisten työnantajien* rekrytoinnissa sosiaalisilla kontakteilla ei ole merkittävää roolia. Kontakteilta saatetaan vastaanottaa potentiaalisia työnhakijoita koskevia suosituksia, mutta näin tapahtuu harvoin ja ilmiötä pidetään sattumanvaraisena. Passiiviset työnantajat eivät koe voivansa omilla toimillaan vaikuttaa sosiaalisten kontaktien kautta vastaanotettujen suositteluiden laatuun tai määrään. Näin ollen he eivät myöskään pyri aktivoimaan sosiaalisia kontaktejaan rekrytointia tukevan informaation jakamiseen. Aktivointitoimien puutteen vuoksi sosiaalisten kontaktien kautta saadut rekrytointihyödyt voivat jäädä heikoiksi.

Reaktiiviset työnantajat reagoivat sosiaalisten kontaktien kautta vastaanotettuun informaatioon mutta eivät itse aktiivisesti pyri sitä hankkimaan. Reaktiiviset työnantajat suhtautuvat epämuodolliseen rekrytointiin passiivisia työnantajia myönteisemmin, mutta hekään eivät pidä epämuodollista rekrytointia relevanttina tai aitoa hyödyntämispotentiaalia omaavana rekrytointikanavana. Kontakteja saatetaan satunnaisesti kannustaa informaation jakamiseen. Henkilöstölle voidaan esimerkiksi maksaa vinkkipalkkioita, mutta muutoin henkilöstöä ei pyritä aktivoimaan suositteluiden jakamiseen. Toimien epäjohdonmukaisuuden ja satunnaisuuden takia sosiaalisten kontaktien kautta saadut rekrytointihyödyt voivat jäädä keskinkertaisiksi.

Proaktiiviset työnantajat tiedostavat, että sosiaalisissa verkostoissa tapahtuva informaation kulku voidaan valjastaa yrityksen rekrytointityön tueksi. He näkevät sosiaaliset kontaktit resurssina, johon johdonmukaisesti investoidut aktivointitoimet tuottavat enemmän tai vähemmän johdonmukaisia rekrytointihyötyjä. Informaation jakamisen lisäksi proaktiiviset työnantajat pyrkivät aktivoimaan kontaktejaan myös työnhakijoiden houkutteluun. Harjoitetut aktivointitoimet kohdistuvat tyypillisimmin yrityksen henkilöstöön. Parhaimman lopputuloksen saamiseksi proaktiiviset työnantajat panostavat henkilöstön aktivoimiseen sekä taloudellisesti että organisatorisesti. Johdonmukaisten aktivointitoimien ansiosta sosiaalisten kontaktien kautta saadut rekrytointihyödyt voivat olla keskimääräistä parempia.

176

## Yhteenveto ja pohdinta

Tutkimuksen tavoitteena oli selvittää, miten ja missä rekrytoinnin vaiheissa työnantajaorganisaatiot hyödyntävät sosiaalisia kontakteja ja mitkä käytännön toimet
liittyvät menestyksekkääseen sosiaalisten kontaktien hyödyntämiseen. Teemahaastatteluaineistoa analysoitiin teoriaohjaavan sisällönanalyysin avulla. Rekrytointi
hahmotettiin monivaiheiseksi prosessiksi, jonka vaiheet tapahtuvat tyypillisesti
epälineaarisesti ja osittain päällekkäin. Rekrytointiprosessi jaettiin työnhakijoiden
keräämis- ja seulontavaiheeseen sekä työntekijän valintavaiheeseen (ks. Fevre 1992;
Barber 1998).

Analyysin pohjalta eroteltiin kolme tapaa, joilla työnantajat hyödyntävät sosiaalisia kontakteja rekrytoinnin eri vaiheissa. Työnhakijoiden keräämisvaiheessa sosiaalisia kontakteja hyödynnetään tietoisesti harjoitettuun työnhakijoiden houkutteluun (ks. Rynes & Barber 1990; Van Hoye & Lievens 2009). Työnantajat levittävät sosiaalisten verkostojen kautta yrityksestään myönteistä työnantajamielikuvaa toimialueen työvoimalle, mikä puolestaan lisää yritykseen yhteydessä olevien työnhakijoiden määrää. Tyypillisimpänä rekrytointihyötynä mainittiin potentiaalisia työnhakijoita koskevat suositukset, joita hyödynnettiin työnhakijoiden seulontavaiheessa (ks. esim. Bills 1999). Työnantajat hankkivat sosiaalisilta kontakteilta myös oma-aloitteisesti tietoa rekrytointiprosessissa mukana olevista työnhakijoista, jota puolestaan hyödynnetään työntekijän valintavaiheen tukena. Jokaisessa rekrytoinnin vaiheessa rekrytointia tukevaa informaatiota vastaanotettiin tyypillisimmin omalta henkilöstöltä.

Haastateltavat kertoivat, että sosiaalisten kontaktien kautta on mahdollista hankkia sellaista rekrytointia tukevaa informaatiota, jota ei välttämättä ole mahdollista saada muiden rekrytointikanavien kautta (ks. myös Pallais & Sands 2016). Tällaista on esimerkiksi työnhakijoiden vaikeasti mitattaviin ominaisuuksiin liittyvä tieto, joka useimmiten koetaan myös rekrytoinnin kannalta tärkeimmäksi informaatioksi. Kontaktien kautta on mahdollista vastaanottaa myös strategista kilpailuetua tuovaa yksityistä informaatiota (*private information*), jota voidaan hyödyntää esimerkiksi kilpailevan yrityksen henkilöstöön kohdistuviin rekrytointeihin (ks. myös Uzzi 1999).

Tutkimuksen keskeisin tulos on ideaalityyppinen luokittelu: työnantajat tyypiteltiin sosiaalisten kontaktien hyödyntämiseen liittyvien toimiensa perusteella kolmeen ryhmään. Passiiviset työnantajat hyödyntävät sosiaalisia kontakteja kaikkein heikoimmin. He eivät koe epämuodollista rekrytointia relevantiksi rekrytointimenetelmäksi vaan pikemminkin toivotuksi mutta harvinaislaatuiseksi sattumaksi. Koska kontaktien kautta vastaanotetut suosittelut hahmotetaan sattumanvaraisiksi, passiiviset työnantajat eivät pyri omilla toimillaan aktivoimaan sosiaalisia kontaktejaan suositteluiden jakamiseen. Reaktiiviset työnantajat suhtautuvat sosiaalisten verkostojen rekrytointipotentiaaliin myönteisemmin. He tunnistavat epämuodollisen rekrytoinnin kustannustehokkaaksi ja onnistuneita rekrytointeja tuottavaksi menetelmäksi ja pyrkivät hyödyntämään kontakteilta saatuja suositteluita. Reaktiivisten työnantajien henkilöstöön kohdistuvat, suositteluiden jakamiseen kannustavat toimet ovat kuitenkin satunnaisia ja epäjohdonmukaisia. Menestyksekkäimmin sosiaalisia kontakteja hyödyntävät proaktiiviset työnantajat. He pyrkivät hyödyntämään sosiaalisia kontaktejaan ennakoidusti ja johdonmukaisesti. Proaktiiviset työnantajat pyrkivät omilla toimillaan aktiivisesti vaikuttamaan sosiaalisten kontaktien kautta vastaanotettavan informaation määrään. He investoivat verkostojen aktivointiin taloudellisia ja organisatorisia resursseja, jotka tuottavat heille rekrytointia tukevien hyötyjen kautta voittoa.

Tulokset osoittavat, että työnantajan tulisi panostaa erityisesti yrityksen henkilöstön kautta harjoitettavaan epämuodolliseen rekrytointiin. Yrityksen työntekijät toimivat suositteluiden näkökulmasta ideaalissa välittäjäpositiossa, koska heillä on tietoa sekä rekrytoivan yrityksen työtehtävistä ja organisaatiokulttuurista että työnhakijan vaikeasti mitattavista ominaisuuksista. Näin ollen he kykenevät poikkeuksellisen hyvin arvioimaan työnhakijoiden soveltuvuutta tarjolla olevaan työtehtävään. Myös työnhakijoiden houkuttelun näkökulmasta henkilöstön verkostopositio on suotuisa, sillä henkilöstön sosiaaliset verkostot koostuvat oletettavasti keskimääräistä enemmän yrityksen toimialalla työskentelevistä henkilöistä eli potentiaalisista työnhakijoista. Henkilöstön kautta myönteistä työnantajamielikuvaa voidaan siis jakaa todennäköisimmin oikealle kohderyhmälle.

Aikaisemmassa tutkimuksessa on käynyt ilmi, että rekrytointi on kontekstiinsa sidottua toimintaa (esim. Pellizzari 2010; Sharone 2014). Tuloksia arvioitaessa onkin syytä muistaa, että aineiston kohdentaminen pk-kokoluokan yrityksiin asettaa tiettyjä rajoituksia tehtyjen tulkintojen yleistettävyydelle. On mahdollista, että eri kontekstissa ja kokoluokassa toimivat työnantajat hyödyntävät sosiaalisia kontak-

teja rekrytoinnissa erilaisin tavoin. Myös mahdolliset lisähaastattelut olisivat voineet tuoda aineistoon uusia näkökulmia. Haastatteluaineistossa esiintynyt toisto antoi kuitenkin selkeitä viitteitä aineiston kyllääntymisestä (ks. Tuomi & Sarajärvi 2018), joten tältä osin tuloksia voidaan pitää kohderyhmän kontekstissa mielekkäinä.

Tutkimuksessa kävi ilmi, että rekrytoinnin vaiheet kytkeytyvät käytännön rekrytointityössä usein toisiinsa ja tapahtuvat suurelta osin päällekkäin. Työnantajat voivat houkutella työnhakijoita sosiaalisten kontaktien kautta ja kohdistaa näin rekrytointiaan tietylle kohderyhmälle, mikä voi vähentää resurssien tarvetta seulontavaiheessa. Sosiaalisten kontaktien kautta saadut suositukset voidaan puolestaan tulkita niin vahvaksi signaaliksi työnhakijan pätevyydestä, että niiden perusteella luovutaan kokonaan valintavaiheeseen liittyvistä arviointiprosesseista, kuten haastatteluista ja soveltuvuusarvioinneista. Sosiaalisten kontaktien vaikeasti kvantifioitavat rekrytointihyödyt ovat monitahoisia, ja ne voivat hyödyttää työnantajaa useissa rekrytoinnin vaiheissa.

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ENGLISH ABSTRACT

#### Matti Laukkarinen

Social contacts and informal knowledge in recruiting: A case study of construction industry SMEs

This article examines employers' utilisation of social contacts in recruitment. The aim of the study was to find out what kind of actions relate to the successful utilisation of social contacts in recruitment. Qualitative analysis of twelve semi-structured interviews describes how employers utilise social contacts at different stages of recruitment, while exploring what kind of practical actions are involved in the successful utilisation of social contacts. As a result, the article presents an ideal type of typology in which employers were split into three categories. Employers who utilise social contacts purposefully and proactively benefit from social contacts in all stages of recruitment, while inconsistent and passive actions typically yield below-average recruitment benefits. The results suggest that employers should view the company personnel and their social networks as a form of network capital, which employers can invest in and further convert into economic capital.



#### II

## SOCIAL MEDIA AS A PLACE TO SEE AND BE SEEN: EXPLORING FACTORS AFFECTING JOB ATTAINMENT VIA SOCIAL MEDIA

by

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#### Social media as a place to see and be seen: Exploring factors affecting job attainment via social media

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#### **ABSTRACT**

Job seekers can utilize social media platforms to actively search for job opportunities and also receive unsolicited job offers from recruiters and employers. Using data from a representative sample of Finnish social media users, this article studies both aspects of social media job attainment by analyzing how much individuals successfully apply for jobs and get recruited to positions through social media. Results show that the prevalence of successfully applying to jobs through social media does not differ statistically between socio-economic groups, but the prevalence of getting recruited to jobs through social media is greater within higher socio-economic groups. LinkedIn users are more likely to get recruited to a job, while strategic networking and posting of professional content increase the chances of both successfully applying and getting recruited to a job through social media. The findings demonstrate that in social media-mediated job market, job seekers' online behavior affects one's exposure to job leads and career opportunities.

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#### Introduction

Social media platforms are recognized as one of the primary intermediaries in today's digital job market (Gandini and Pais 2018; Sharone 2017). While many people join these platforms for enjoyment and leisure purposes, research has shown that users can gain professional career benefits from social media usage (Davis et al. 2020; Nikitkov and Sainty 2014; Utz 2016). The significant role of social media in labor market matchmaking can be attributed to its capacity to offer a cost-efficient avenue for job seekers and employers to exchange job-related information (Brown and Vaughn 2011; Chiang and Suen 2015). On the supply-side of the labor market, job seekers utilize social media features and personal contacts for online job search (Garg and Telang 2018; Karaoglu, Hargittai, and Nguyen 2022). On the demand-side, employers leverage social media platforms as a talent attraction and selection tool (Bohnert and Ross 2010; McDonald et al. 2022; Ollington, Gibb, and Harcourt 2013; Phillips and Gully 2015).

Most of the literature characterizes job search as a process in which job seekers acquire information about potential job opportunities through instrumental job

search activities, i.e., purposive investments to information seeking (McDonald 2010). In the social media-mediated job market, this framework proves inadequate, as recruiters can proactively search for potential job candidates, allowing job seekers to receive information about job opportunities even if they are not actively searching for them. Some users know this and build their online presence with this premise in mind (Bangerter, Roulin, and König 2012; Berkelaar 2014). Even though changing jobs without actively engaging in a job search is not a novel concept (see Granovetter 1995), Social media platforms have broadened the scope of social media "headhunting" to include a wider variety of occupational groups and positions (Kroll, Veit, and Ziegler 2021; McDonald et al. 2019).

Several authors have flagged the lack of research interest in how social media affects individuals' career transitions and labor market outcomes (Roth et al. 2016; Sullivan and Al Ariss 2021; Treem and Leonardi 2013; Utz and Breuer 2016). This article introduces a novel framework for studying social media job attainment by recognizing that job seekers can use social media platforms to acquire job-related

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information and conduct online job searches, as well as enhance their visibility and attract the attention of recruiters and potential employers. Consequently, job seekers must have not only the skills to seek out professionally relevant information, but also possess cultural capital and knowledge to present themselves in a manner that captures the attention of recruiters (Bills, Di Stasio, and Gërxhani 2017; Sharone 2017). In this framework, job-seeking through social media simultaneously a purposive process of information-seeking as well as a process partly mediated by chance. The research on serendipitous job matching has suggested that social interaction can have unintended consequences for career outcomes (Bright, Pryor, and Harpham 2005), which is likely to be an even bigger factor on social media, where the chances for serendipitous encounters is particularly high.

While receiving job leads through one's social media network can seem an unexpected event from the user's point of view, research has shown that individual and contextual factors influence the receipt of unsolicited job information (McDonald 2010). This article examines what factors affect the probability of receiving jobs through social media. The first goal of the article is to investigate the success rates of job seekers from different socio-economic groups in applying for jobs and getting recruited to jobs through social media. The second goal is to analyze the factors that impact the likelihood of job attainment via social media. To address these questions, a nationally representative sample of Finnish social media users was analyzed.

## The evolution of social media and their impact on online job search and recruitment

The landscape of social media platforms has evolved rapidly during the last decade. The introduction of various technologies has affected the ways how platforms process content and how users gain access to information (Ellison and Vitak 2015; Kane 2017). These changes have also impacted how job seekers and recruiters obtain professionally relevant information through social media. Although social media platforms continue to evolve and remain a moving target for researchers, it is important to identify some significant changes that have influenced contemporary social media job search and recruiting.

Most of the social media-related literature centers on the term social network site. In a widely utilized definition, boyd and Ellison (2007, 211) define social network sites (SNS) as "web-based services that allow individuals to (1) construct a public or semipublic

profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." Subsequently, in their revised definition, Ellison and boyd (2014) acknowledge that social network sites have evolved from their "friend" or "follower" based origins more toward algorithmic-curated streams of content. Even though the revised definition1 takes into account that social network sites aren't as profile-centric as they used to be, Kane et al. (2014) argue that the term social network "site" is misleading given the current state of social media. Instead, they propose a replacement term social media network, which they define as having "four essential features such that users (1) have a unique user profile that is constructed by the user, by members of their network, and by the platform; (2) access digital content through, and protect it from, various search mechanisms provided by the platform; (3) can articulate a list of other users with whom they share a relational connection; and (4) view and traverse their connections and those made by others on the platform" (278, italics in original).

This article acknowledges that social media platforms have evolved from their initial "bounded" single website origins to more open data analytic-driven infrastructures, which have enabled a broader use of user data in labor market matchmaking (see Köchling and Wehner 2020). For example, on LinkedIn, platform-provided search tools enable recruiters to gain access to a targeted pool of potential job candidates based on the information presented on the user's LinkedIn profile (McDonald et al. 2019). These matching processes are largely mediated by algorithm-based predictive analytics, which remains an understudied subject in online job market research (see Shrestha and Yang 2019).

In professional context, Facebook, LinkedIn, and Twitter are among the most studied social media platforms (see Utz 2016). These platforms differ in their architecture and intended use (Papacharissi 2009). Facebook's user interface is geared more toward personal self-expression, whereas LinkedIn's user interface is designed for professional self-presentation (Van Dijck 2013). Facebook's interface incentivizes users to publish personal data (hobbies, interests, etc.). LinkedIn, on the other hand, provides a uniform and chronological interface for publishing professional career-oriented information. Twitter provides users limited possibilities for sharing profile information and instead allows users to post short textual messages to a network of "followers". Twitter's referral-based interface promotes dialogical communication, even

though there are no technical requirements or social expectations for reciprocal communication (Marwick and boyd 2011). Users network compositions also vary by platform. On Facebook, networks are typically comprised of an existing group of friends and acquaintances, and the platform is used to support preexisting offline ties. As a career-oriented platform, LinkedIn promotes professional networking, and users typically connect with work-related acquaintances or experts in their fields (boyd and Ellison 2007). On Twitter, the network compositions are generally asymmetrical, as the platforms' following function doesn't necessitate reciprocal connection. The asymmetry of networks entails that on Twitter, content reach is hard to define, especially if users' privacy settings are unrestricted (Marwick and boyd 2011).

#### Social media as a place to see

Generally speaking, online job search refers to any instance when people utilize the internet in their job search, ranging from online job boards (e.g., Monster. com) to social media platforms (Stevenson 2009). Previous research has established that online job search reduces the duration of unemployment and might help job seekers find more prestigious jobs (DiMaggio and Bonikowski 2008; Faberman and Kudlyak 2016). According to Kuhn and Mansour (2014), unemployed people who look for work online reemploy approximately 25% faster than those who do not search for work online. Even though the authors did not specifically review the effects of social media platforms on job attainment, they concluded that "contacting friends and relatives online is highly correlated with job-finding rates" (1231). These findings accord with previous literature, which has established that besides casual socializing activities, people utilize social media for information-seeking purposes (Brandtzæg and Heim 2009; Vitak and Ellison 2013). For example, on LinkedIn, users can search for posted and advertised jobs as well as reach out to their network contacts for job leads and referrals (Garg and Telang 2018).

Comparative studies have shown that LinkedIn seems to yield most professional benefits for its users (Nikitkov and Sainty 2014). Utz's (2016) study of Dutch online users also supports this view. In the study, LinkedIn users reported the highest professional information benefits (timely access to relevant information and being referred to career opportunities), followed by Twitter users and lastly Facebook users. Even though Utz's initial study predicted professional information benefits for various measures, such as

posting of professional content and the number of strong network ties, the follow-up longitudinal study (Utz and Breuer 2016) showed long-term professional information benefits only for strategic networking. According to the authors, the lack of long-term benefits is linked to how individuals share and seek information on social media. Social media users anticipate prompt feedback to their queries and posts, which is why interactions rarely yield information benefits after a certain period has passed.

#### Social media as the place to be seen

In addition to job seekers, employer organizations utilize social media platforms for information-seeking purposes (Davison, Maraist, and Bing 2011). Employers utilize social media for various purposes throughout the recruitment process, and it is important to identify whether they are using it to attract candidates or evaluate them. Online screening or "cybervetting" is a process where employers evaluate job candidate's potential job performance and characteristics by utilizing the information available on the internet (Brown and Vaughn 2011; McDonald et al. 2022). In practice, this is done by reviewing candidate's social media profile or "googling" the candidate. These assessments are related to the selection phase of the recruitment process (Roth et al. 2016), meaning that recruiters use online screening as an additional information source after the evaluation of preliminary information, i.e., CV, application form, or first screening interview (Nikolaou 2014).

Before the selection phase, employers also use social media for active sourcing, which involves the proactive search and reaching out to potential job candidates (Breaugh 2008; Kroll, Veit, and Ziegler 2021, Ollington, Gibb, and Harcourt 2013). McDonald et al. (2019) presented an insightful analysis and discussion on this scarcely researched phase of recruitment. In their qualitative study, the authors described how recruiters use LinkedIn to identify passive job candidates, i.e., employed individuals who are not looking for work but might be willing to change jobs. By utilizing LinkedIn as a "workforce database", recruiters can search the user base and their network connections to find potential job candidates. Paid services are also offered by the platform, which provides recruiters with access to various search functions and predictive analytic tools. These features allow recruiters to scan and filter the entire user base based on the information provided in the user's LinkedIn profile. Recruiters can filter the user base by their professional experience and competence and also

leverage algorithm-based predictive analytics tools to sort individuals by their sociodemographic background and interpreted personality traits. Authors suggest that algorithmic search tools, among other internet technologies, have evolved into a new source of labor-market polarization. In this new kind of "winner-take-all labor market", active sourcing practices increasingly favor those who can digitally signal competence and match employers' subjective perceptions of optimal performance, while competition amongst other workers is getting increasingly intensified (McDonald et al. 2019, 96).

Similarly, Sharone (2017) argues that for job seekers, employer's use of social media is a double-edged sword. On one hand, social media platforms offer job seekers the opportunity to increase their visibility to recruiters. On the other hand, as employers increasingly use social media for active sourcing, job seekers must invest more time and effort into their online presence to avoid missing out on professional opportunities. While employers have always been inclined to avoid stigmatized applicants in favor of privileged applicants (Bills, Di Stasio, and Gërxhani 2017), advancements in technology and wider access to open data have resulted in a significant increase in the number of candidates that employers can now reach using algorithmic tools. In this active sourcing process, minor variations in digital signals can have considerable implications for job market outcomes. There is evidence that contemporary recruitment practices, such as active sourcing, are susceptible to both implicit and explicit discrimination. (Kroll, Veit, and Ziegler 2021).

Employers' proactive use of social media for identifying and approaching potential job candidates, i.e. active sourcing, increases the likelihood of job offers being extended to job seekers who have not actively participated in the job-seeking process. This raises the question of what factors affect the chances of getting found and contacted by an employer. Research on employer's use of social media has indicated that recruiters utilize job seeker's self-presentation signals to assess their suitability for the job and the organization they're hiring for (Chiang and Suen 2015; McDonald et al. 2022; Roulin and Bangerter 2013). Social media platforms provide users with the opportunity to efficiently edit and distribute information, which is why these platforms are often described as ideal platforms for professional impression management (Roulin and Levashina 2016). Previous studies on professional impression management have focused mainly on LinkedIn. Roulin and Levashina (2019) found that on LinkedIn, profile length, profile photo,

and number of connections were positively related to platform-based hiring recommendations, which were associated with higher career success. A recent study on professional impression management concluded that on LinkedIn, a more extended profile summary and a profile photo with higher facial prominence were positively related to receiving more job offers (Krings et al. 2021). Together, these studies indicate that the content on job seekers' social media profiles plays a role in active sourcing.

## Socio-economic differences of social media job attainment

Prior research on the effects of socio-economic factors on job search has shown that job seekers of higher socio-economic groups possess higher professional self-efficacy, which translates into more active and varied job-seeking activities (DeOrtentiis, Van Iddekinge, and Wanberg 2022; Hu et al. 2022; Huang and Hsieh 2011). Although only a few studies have specifically examined the effects of socio-economic factors on online job search, some studies have highlighted the effects of individual sociodemographic factors, such as age and education. Green et al. (2012) found that job seekers with higher educational qualifications were more likely to use the internet for job search. Karaoglu, Hargittai, and Nguyen (2022) found that job seekers with lower income and education levels were less likely to use social media for job search. They also concluded that in addition to sociodemographic factors, "digital job-search skills" correlate strongly with the use of the internet and social media for job search. Nikolaou (2014) found out that males and job seekers with higher education tend to use LinkedIn more, whereas younger job seekers prefer to use Facebook in their job search. The study also found out that compared to active job seekers, so-called passive job seekers, i.e., employed individuals who are not looking for work but might be willing to change jobs, benefited more from LinkedIn even though active job seekers used social media platforms more actively compared to passive job seekers.

Very little was found in the literature on the question of socio-economic differences in getting recruited to a job through social media. Previous research on executive search, informally known as "headhunting", has established that recruiters identify and attract potential job candidates, especially when hiring for executive positions (Hamori 2010, 2014). It has been proposed that employers also utilize social media for identifying and attracting purposes primarily when recruiting for higher positions

(see McDonald et al. 2019). This suggests that job seekers from higher socio-economic backgrounds might be more commonly targeted for recruitment through social media compared to those from lower socio-economic backgrounds, potentially leading to a greater chance of getting recruited to a job.

#### **Aims**

Informed by the above-discussed literature, this article approaches social media platforms firstly as venues where job seekers can actively search information about potential job opportunities and apply to them, and secondly as channels through which job seekers can manage their professional image by sharing information about themselves, thereby increasing their visibility to potential employers. Specifically, the research questions are as follows:

RQ1: What is the prevalence of successful application to a job through social media, and does this vary by socio-economic status?

RQ2: What is the prevalence of recruitment to a job through social media, and does this vary by socio-economic status?

RQ3a: What factors affect the probability of successful application to a job through social media?

RQ3b: What factors affect the probability of recruitment to a job through social media?

#### Data and methods

The respondents were recruited through two large online research panels. From these panels, a professional research company administered the survey to reach the desired sample of 5000 respondents, a nationally representative sample of the Finnish population aged 18-69. The survey asked a wide range of questions regarding work life in general, including online and offline job search2.

The original sample was narrowed to suit the research aims better. The sample was restricted to the active labor force, so students and retirees were excluded from the analysis. Entrepreneurial groups were also excluded from the analysis as self-employed persons' contract-based employment relationships produce qualitative differences in job-seeking behavior compared to wage earners. Therefore, the analysis was restricted to wage earners (blue-collar, lower white-collar, upper white-collar, and upper management). As the focus was on social media platforms, the sample was further restricted to exclude nonusers

of Facebook, LinkedIn, or Twitter from the analysis. The final sample consisted of 2138 respondents, a sub-sample of the active labor force in Finland, comprised of wage earners who also use Facebook, Twitter, or LinkedIn.

#### Measures

#### Dependent variables

The phenomenon under study, job attainment via social media, was examined through two dependent variables. Respondents were asked "have you found a job or assignment through social media" and "have you been found to a job or position through social media". The first variable indicated whether respondents themselves had successfully applied to a job through social media. The second variable indicated whether respondents had been contacted and recruited to a job through social media. Both variables were categorical yes-or-no questions.3

#### **Independent variables**

- Sociodemographics: Gender was coded as a binary variable (female = 0, male = 1), as they were the only options offered on the survey. Age was asked in years. Respondents indicated their level of education on a 6-point scale, which was recoded into three categories (secondary degree or lower, bachelor's degree, master's degree or higher). Respondents indicated their self-assessed socio-economic group on a scale based on a standard socio-economic classification used by Statistics Finland. The classification is based on international standards<sup>4</sup> and is formed considering a person's stage of life, occupation, and occupation status. Dummy variables were created to indicate the respective socio-economic group (0 = no, 1 = yes).
- Strategic networking: Respondents indicated how much they had spent time consciously networking with people who could be valuable to job search during the last year. Answer categories were on a 5-point scale ranging from "not at all", "less than one workday", "1-3 workdays", "3-5 workdays" to "more than 5 workdays". In the model, higher values indicated more active strategic networking.
- Job search activity: In parallel to strategic networking, respondents indicated how much they had spent time browsing various job search-related platforms and services during

the last year. Answer categories were on a 5-point scale ranging from "not at all", "less than one workday", "1-3 workdays", "3-5 workdays" to "more than 5 workdays". In the model, higher values indicated higher job search activity.

- Posting of professional content: Respondents indicated how often they post content related to their work or skills on social media, such as writing an update, sharing an article, or publishing an image. The 7-point scale answer categories ranged from "daily or almost daily" to "never". In the model, higher values indicated more active posting of professional content.
- Platform usage: Respondents indicated what social media platforms they used. Facebook, LinkedIn, and Twitter were selected for the study as they are among the most popular social media platforms, and these platforms have been previously studied in the professional context. Respondents with a profile on Facebook, Twitter, and LinkedIn were coded into dummy variables to represent the use (1) or nonuse (0) of the specific platform.

#### Sample

Approximately half of the respondents were female (48.8%). The mean age for the sample was 43.2. In all, 46.8% of the respondents had a secondary degree or less, 25.8% had a bachelor's degree, and 27.4% had a master's degree or higher. Further, 49.6% of the respondents were blue-collar workers, 21.2% were lower white-collar workers, 24.4% were upper white-collar workers, and 4.8% were upper management workers. The most popular social media platform was Facebook (70.4%), followed by LinkedIn (28.3%) and lastly Twitter (16.8%). It should be noted that some of the respondents used multiple platforms simultaneously. Descriptive statistics of the sample are presented in Table 1.

#### **Analytical strategy**

Cross-tabulations and chi-square statistics were used to examine the prevalence and association between socio-economic groups and the respective job attainment method (RQ2, RQ2). Two separate logistic regression analyses were conducted to examine what factors affect the probability of successfully applying (RQ3a) and getting recruited (RQ3b) to a job through social

Table 1. Sample, descriptive statistics.

	Percent / M (SD)
Female	48.8
Age	43.2 (11.6)
18–24	5.8
25-34	21.5
35-44	25.5
45-54	27.5
55–64	18.7
65–69	1,0
Education level	
Secondary degree or less	46.8
Bachelor's degree	25.8
Master's degree or higher	27.4
Socio-economic status	
Blue-collar worker	49.6
Lower white-collar worker	21.2
Upper white-collar worker	24.4
Upper management worker	4.8
Social media usage	
Uses Facebook	70.4
Uses LinkedIn	28.3
Uses Twitter	16.8

n = 2138, M = Mean, SD = Standard Deviation.

media. (Both analyses started with the baseline of sociodemographic variables (Model 1). In the second step, strategic networking, job search activity, and the posting of professional content were added (Model 2). In the final step, the usage of a specific platform (Facebook, LinkedIn, or Twitter) was added (Model 3). Results are reported stepwise and summarized in Tables 2 and 3.

#### **Results**

#### **Descriptive statistics**

During the last year, over 40% of respondents indicated spending at least some time consciously networking with people who could be valuable in regard to job search (42.7%). Younger age and higher education were positively associated with strategic networking. Upper white-collar and upper management workers were likelier, and blue-collar workers were less likely to practice strategic networking. Two out of three respondents had spent at least some amount of time browsing various job search-related platforms and services during the last year (66.4%). Women, younger respondents, and respondents with higher education were more likely to spend time searching for a job. Over fifty percent of respondents had posted content related to their work or skills on social media (52.7%). Upper management workers and individuals with higher education were more likely to post professional-related content on their social media profiles. Regarding platform usage and socio-economic status, blue-collar workers were likelier to use Facebook, whereas for upper white-collar and upper management workers, the usage was less likely. With

Table 2. Logistic regression analysis on successfully applying to a job through social media.

	N	Model 1		N	Model 2		Model 3			
_	Odds					Odds		Odds		
	В	SE	ratio	В	SE	ratio	В	SE	ratio	
1.Gender (female = 0 male = 1)	-0.422**	0.152	0.656	-0.342**	0.160	0.647	-0.375**	0.167	0.687	
2. Age	-0.035***	0.007	0.966	-0.028***	0.007	0.970	-0.027***	0.008	0.973	
3. Education	0.098	0.099	1.103	-0.066	0.103	0.950	-0.097	0.107	0.907	
4. Socio-economic status (base: blue-collar)										
5. Lower white-collar	0.076	0.200	1.079	0.100	0.209	1.106	0.063	0.212	1.066	
6. Upper white-collar	0.219	0.215	1.245	0.154	0.222	1.133	0.084	0.230	1.088	
7. Upper management	0.489	0.351	1.631	0.129	0.378	1.067	0.066	0.371	1.068	
8. Strategic networking				0.338***	0.066	1.402	0.324***	0.060	1.382	
9. Job search activity				0.249***	0.064	1.282	0.244***	0.065	1.277	
10. Professional content				0.274***	0.035	1.315	0.273***	0.037	1.314	
11. Facebook usage (No = 0 Yes = 1)							-0.050	0.294	0.951	
12. LinkedIn usage (No = 0 Yes = 1)							0.211	0.189	1.234	
13. Twitter usage (No = 0 Yes = 1)							0.005	0.188	1.005	
Chi-square (df)		37.737***	<sup>+</sup> (6)		191.407*	** (9)		192.821*** (12)		
Nagelkerke Pseudo-R <sup>2</sup>	0.037				0.182			0.183		

Notes: n = 2138.

Table 3. Logistic regression analysis on getting recruited to a job through social media.

		Model 1			Model 2		Model 3			
_			Odds			Odds			Odds	
	В	SE	ratio	В	SE	ratio	В	SE	ratio	
1.Gender (female = 0 male = 1)	-0.010	0.186	1.010	0.009	0.197	1.010	-0.184	0.205	0.832	
2. Age	-0.015	0.009	0.985	-0.008	0.009	0.992	-0.006	0.010	0.994	
Education     Socio-economic     status (base:     blue-collar)	0.171	0.124	1.187	0.069	0.127	1.072	-0.067	0.131	0.936	
5. Lower white-collar	0.691**	0.255	1.995	0.758**	0.263	2.135	0.588*	0.268	1.800	
6. Upper white-collar	0.812**	0.272	2.252	0.699**	0.275	2.013	0.396	0.283	1.486	
7. Upper management	1.358***	0.374	3.890	0.939**	0.398	2.557	0.632	0.405	1.882	
8. Strategic networking				0.596***	0.080	1.814	0.545***	0.083	1.724	
9. Job search activity				-0.104	0.085	0.901	-0.124	0.086	0.884	
10. Professional content				0.225***	0.043	1.252	0.211***	0.046	1.235	
11. Facebook usage (No = 0 Yes = 1)							-0.287	0.289	0.750	
12. LinkedIn usage (No = 0 Yes = 1)							0.858***	0.239	2.359	
13. Twitter usage (No = 0 Yes = 1)							0.275	0.216	1.316	
Chi-square (df) Nagelkerke Pseudo-R <sup>2</sup>	29.590*** (6) 0.038				135.016* 0.168	** (9)		154.653** (12) 0.192		

*Notes:* n = 2138.

LinkedIn and Twitter, the situation is opposite, as both platforms were less likely used by blue-collar workers and more likely used by upper white-collar and upper management workers. Interestingly, there aren't any statistically significant correlations with lower white-collar worker's platform usage. The means, standard deviations, and pair-wise correlations of the variables included in the analysis are displayed in Table 4.

#### Applying to jobs through social media

The first research question (RQ1) looked for how successful different socio-economic groups are in applying to jobs through social media. Cross-tabulations (see Figure 1) show slight variation between socio-economic groups in the prevalence of successfully applying to a job through social media. In the groups of blue-collar (10.1%), lower-white collar

<sup>\*</sup>p < .05, \*\*p < .01, \*\*\*p < .001.

p < .05, p < .01, p < .01, p < .001.

Table 4. Means, standard deviations, and intervariable correlations.

	M (SD)	1	2	3	4	5	6	7	8	9	10	0 11	12	13
1.Gender (female = 0 male = 1)	1.47 (0.50)	-												
2. Age	42.11 (11.92)	.106***	_											
3. Education	1.81 (0.85)	.001	.033	_										
4. Blue-collar	1.48 (0.50)	155***	264***	433***	-									
5. Lower white-collar	1.21 (0.41)	012	.070**	005	503***	_								
6. Upper white-collar	1.25 (0.44)	.147***	.174***	.428***	565***	304***	_							
7. Upper management	1.05 (0.22)	.084***	.128***	.146***	220***	118***	133***	_						
8. Strategic networking	1.86 (1.19)	.023	117***	.190***	105***	018	.106***	.062**	-					
9. Job search activity	2.49 (1.42)	125***	245***	.089***	.033	002	012	049*	.480***	_				
10. Professional content	2.35 (1.89)	01	009	.105***	041	028	.015	.119***	.246***	.076***	_			
11. Facebook usage (No = 0 Yes = 1)	1.9 (0.29)	191***	098***	107***	.177***	.02	188***	067**	056**	003	.087***	-		
12. LinkedIn usage (No = 0 Yes = 1)	1.34 (0.48)	.193***	.04**	.390***	395***	.03	.356***	.140***	.324***	.155***	.135***	320***	-	
13. Twitter usage (No = 0 Yes = 1)	1.21 (0.41)	.133***	.002	.116***	110***	003	.091***	.078***	.114***	.048*	.239***	072**	.221***	-

Notes: \*p < .05, \*\*p < .01, \*\*\*p < .001.

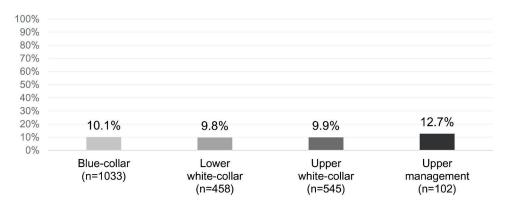


Figure 1. Frequency of successfully applying to a job through social media by socio-economic status.

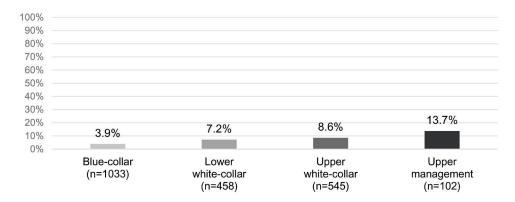


Figure 2. Frequency of getting recruited to a job through social media by socio-economic status.

(9.8%), and upper-white collar workers (9.9%), approximately one out of ten respondents had successfully applied to a job through social media. In the group of upper management workers, the prevalence was slightly higher, where one out of eight respondents (12.7%) had successfully applied to a job through social media. Chi-square statistics show an insignificant association between socio-economic group and the prevalence of successfully applying to a job through social media ( $\chi 2 = .847$ , df = 3, p > .05).

#### Getting recruited to jobs through social media

The second research question (RQ2) looked for differences among socio-economic groups in recruitment to jobs through social media. Cross-tabulations (see Figure 2) show that getting recruited to a job through social media is more prevalent within higher socio-economic groups. Chi-square statistics show a significant association between the socio-economic group and the prevalence of getting recruited to a job through social media ( $\chi 2 = 25.582$ , df = 3, p<.001). In the group of blue-collar workers, only four percent (3.9%) of the respondents had been recruited to a job

through social media. In the group of lower white-collar workers, the corresponding portion was approximately seven percent (7.2%), whereas with upper white-collar workers, almost one out of ten respondents (8.6%) indicated having been recruited to a job through social media. The prevalence was highest with upper management workers, where one out of seven (13.7%) respondents had been recruited to a job through social media.

#### Factors affecting job attainment via social media

#### Applying to jobs through social media

The third research question (RQ3a) asked what factors affect the probability of successfully applying to a job through social media. All models consistently show that women and younger respondents are more likely to successfully apply to jobs through social media than males and older respondents. When adding variables associated with professional activities, strategic networking, job search activity, and the posting of professional content have a positive correlation with the likelihood of succeeding in job application through social media. The third model

shows that utilizing a particular social media platform does not have statistically significant effects on the likelihood of successfully applying to a job through social media.

#### Getting recruited to jobs through social media

It also asked (RQ3b) what factors affect the probability of getting recruited to a job through social media. Upon including factors related to professional activities, strategic networking and the posting of professional content are positively related to the probability of getting recruited to a job through social media. Following the addition of platform-specific variables to the model, the sole significant variable that persists is being a lower white-collar worker, despite earlier significant positive associations with being upper white-collar and upper management worker. When incorporating platform-specific variables, it is found that LinkedIn usage has a favorable correlation with the likelihood of getting recruited to a job through social media, whereas the usage of Facebook and Twitter do not.

#### Discussion

This article extended the research of social media's effects on labor market outcomes by examining to what extent job seekers attain jobs through social media and identifying the factors that influence the likelihood of job attainment through social media. Whereas few qualitative articles have studied social media usage from the perspective of candidate headhunting, the present study offered a novel look at the phenomenon by examining targeted recruitment, or active sourcing, through social media from a job seekers perspective with a large representative sample. The findings indicate that job seekers online activities affect the probability of both successfully applying to jobs through social media and getting recruited to jobs through social media.

These findings reinforce previous studies indicating that job seekers' behavior on social media platforms influences their chances of securing employment or gaining useful information through social media (Karaoglu, Hargittai, and Nguyen 2022; Nikolaou 2014; Utz 2016; Utz and Breuer 2016, 2019). Several studies have shown that higher socio-economic groups search for jobs more diversely (DeOrtentiis, Van Iddekinge, and Wanberg 2022; Green et al. 2012; Hu et al. 2020; Huang and Hsieh 2011). In the context of social media job search, present results contradict this claim. Contrary to what was expected, there were no significant statistical associations found between socio-economic groups and the likelihood of successfully applying to a job through social media.

However, there was a significant association between socio-economic groups and the prevalence of getting recruited to a job through social media. This finding is consistent with that of McDonald et al. (2019), who found that employers utilize social media in targeted recruiting primarily when recruiting for high-skill or supervisory positions. In the regression model, higher socio-economic groups were associated with a greater likelihood of getting recruited to a job through social media. However, after including the platform-specific variables, the differences between socio-economic groups dissipated, and a significant, albeit weak, positive correlation remained only with lower white-collar workers. This somewhat contradictory result may be due to the fact that although social media is more frequently used to recruit lower white-collar workers than blue-collar workers, for them, the use of specific platform, namely LinkedIn, doesn't play as significant role as with upper white-collar and management workers. This is understandable, as white-collar workers encompass a wide range of positions across different sectors and levels of occupational prestige while LinkedIn's user base is mainly comprised of upper white-collar and upper management workers. Regarding individuals from higher socio-economic groups, the findings indicate that having a presence on LinkedIn is a more significant predictor of being recruited through social media than merely belonging to the upper white-collar or upper management groups.

Regarding online job search and finding a job through social media, the regression model shows that females and younger respondents are more likely to successfully apply to jobs through social media. Previous studies have shown that younger job seekers are more proficient with their digital job search skills and apply for more jobs online (Karaoglu, Hargittai, and Nguyen 2022; Van Deursen and Van Dijk 2011). However, previous research hasn't in dicated any gender differences regarding online job search or the use of social media for job search. A possible explanation for the present results might be related to the gender differences in broader social media usage patterns. A recent study on social media use in Finland concluded that women are more likely to engage in all types of social media activities compared to men (Ertiö, Kukkonen, and Räsänen 2020). Therefore, it may be that women also practice more social media job search. Unfortunately, the dataset didn't include variables indicating the general activity of social media use, which would have allowed to control this effect.

Strategic networking is positively related to both successfully applying for and getting recruited to a job through social media. These findings are consistent with previous literature, indicating that social media networking provides professional information benefits (Davis et al. 2020; Garg and Telang 2018; Utz 2016). In the present study, the variable of strategic networking has some limitations, as it did not reveal any information about respondent's actual network composition. The sheer size of one's network might not always correlate with positive outcomes, as it has been shown that from the viewpoint of career benefits, all online ties are not equal (Davis et al. 2020; Utz and Breuer 2019). For example, studies have suggested that recruiters who use LinkedIn scan their network connections, when looking for potential job candidates (McDonald et al. 2019). This suggests that intentional networking with recruiters could offer significant benefits in terms of increasing the chances of being noticed and contacted by a recruiter. Future research should further investigate the influence of user's network composition in active sourcing.

The posting of professional content is also positively related to both social media job attainment methods. Prior research has shown that recruiters utilize users' social media profiles to assess job candidates' characteristics and potential job performance (Bohnert and Ross 2010; Chiang and Suen 2015; McDonald et al. 2022; Ollington, Gibb, and Harcourt 2013). This allows users to consciously practice professional impression management (Bangerter, Roulin, and König 2012). Present results give cautious support to the claim that user's social media content plays a role in active sourcing, and the posting of professional content can increase the likelihood of getting recruited to a job through social media. In the context of online job search, the posting of professional content remains an enigmatic variable. One possible explanation could be that users who post content to their social media profiles use social media more actively overall. Therefore, they might come across potential job leads more often than less-active users (see Davis et al. 2020).

The usage of LinkedIn is linked to a higher likelihood of getting recruited to a job through social media, supporting earlier research indicating that LinkedIn provides the most professional benefits to its users compared to other social media platforms (Nikitkov and Sainty 2014; Utz 2016; Utz and Breuer 2016). This study adds to the understanding of how job seekers can leverage LinkedIn to their advantage.

The results indicate that on LinkedIn, job seekers benefit primarily from increased exposure to potential employers, rather than from active online job search. This finding is consistent with that of McDonald et al. (2019), who found that recruiters identify and approach job candidates especially through LinkedIn.

#### Limitations and future research suggestions

Although the present study provides interesting results, certain limitations must be taken into consideration. The study's main limitation is the cross-sectional design, which doesn't allow the examination of causal conclusions. Furthermore, the country-specific research design raises some caution for the generalizability of the results, as job-searching and recruiting practices can differ by culture and labor market context (see Bills, Di Stasio, and Gërxhani 2017; Sharone 2014). The variables used in the analysis also have some limitations. A more comprehensive research design including variables related to social media usage activity and platform-specific networking behavior would have yielded interesting results. Although prior research has indicated that face-to-face networking and online networking correlate with each other (Baumann and Utz 2021; Davis et al. 2020; Utz and Breuer 2019), a specific variable indicating respondents' online networking would have allowed a more comprehensive examination. A clear strength of the study is the representative and large sample of Finnish active labor force. Based on the previous research, examining social media job attainment by socio-economic groups was justified. However, in the future, a more nuanced examination, e.g. by occupational sector, could unveil differences that the present dataset did not reveal.

The results raise several questions regarding the relationship between occupational status, utilization of platforms, and attaining a job through social media. According to the analysis, LinkedIn usage is associated with an increased likelihood of getting recruited to a job through social media. Simultaneously, targeted recruitment seems to happen more often within the same occupational groups where LinkedIn usage is more prevalent. This raises questions regarding the causality of these variables - if recruiters utilize LinkedIn as a primary tool in active sourcing, are higher occupational groups getting targeted for recruitment simply because they tend to use LinkedIn more frequently? If blue-collar workers were to use LinkedIn more frequently, would this lead to a higher occurrence of targeted recruitment among them? Overall, the results suggest that the use of LinkedIn can be advantageous for individuals seeking job opportunities, regardless of their socio-economic background.

This study demonstrates that nuances exist within social media job attainment. Hopefully, these findings stimulate future research to recognize these nuances and study social media not only as a source of job-related information but also as a platform where employers actively search for and approach potential job candidates. With the expected increase in the use of predictive analytics in human resources management in the future (see Köchling and Wehner 2020), it is reasonable to anticipate that job seeker's digital signals and online behavior will gain greater significance in the future. To gain a comprehensive understanding of job acquisition through social media, further research is required to explore how employers utilize this information to target specific candidate groups, and how such practices may affect job seekers' equal opportunities and access to the labor market.

#### **Notes**

- Ellison and boyd's revised definition Definition 2.0 is as follows: "A social network site is a networked communication platform in which participants (1) have uniquely identifiable profiles that consist of user-supplied content, content provided by other users, and/or system-level data; 2) can publicly articulate connections that can be viewed and traversed by others; and 3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site" (159, italics in
- The dataset was originally administered as a part of Finnish Innovation Fund Sitra's Work Life 2017 research project.
- In global comparison, Finland has relatively low social and economic disparities and high access and usage of ICT technology within the population (Ertiö, Kukkonen, and Räsänen 2020). As with other Scandinavian countries, in Finland, job finding through social ties is relatively low (see Franzen and Hangartner 2006).
- The classification of Socio-economic Groups 1989 is based on international recommendations given by The United Nations Economic Commission for Europe (ECE) and Nordic classification of socio-economic groups (NORD-SEI) (Statistics Finland 2022).

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#### III

# WHAT IF I DISAGREE WITH THE ALGORITHM? EXAMINING RECRUITERS' AUTONOMY-ENHANCING PRACTICES ON PROFESSIONAL SOCIAL MEDIA PLATFORMS

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