Internet Recruiting 2.0: Shifting Paradigms

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Abstract
This article adopts the premise that technology in general, and Internet-based communication tools and social media in particular, have fundamentally changed the nature of recruitment. However, theory and scholarship on recruitment have not kept pace with this rapidly changing landscape. This article suggests that electronic job boards, recruitment Web sites, and social media platforms such as LinkedIn are not simply more efficient electronic versions of paper-based job postings, classified ads, or employee referrals. Instead, we suggest that Internet-based technology has changed the nature of organizational communication, recruitment practices, and job seeker expectations in ways that warrant substantial additional research attention. Thus, this article has two primary purposes: to identify key ways technology-based recruitment is changing recruitment paradigms and to identify a future research agenda to aid scholars in pursuing these issues.

Key Words: Internet, recruitment, paradigm, media richness, customization, push-pull, decentralization

Few would debate that Internet technology has transformed virtually all aspects of business, from now-virtueal meeting rooms to mass or highly customized marketing campaigns by which companies engage existing or potential customers. We begin with the premise that technology in general, and Internet-based communication tools and social media in particular, have fundamentally changed the nature of recruitment. Recruitment can be defined as the actions organizations take to generate job applicant pools, maintain viable applicants, and encourage desired candidates to join those organizations (Dineen & Solis, 2011). Theory and scholarship on recruitment has not kept pace with the rapidly changing landscape.

Over a decade ago, 90 percent of large U.S. organizations reported using their Web sites to communicate job information to potential applicants, and organization Web sites have become the major source of new hires for many U.S. companies (Brown, Cohen, Kane, Levy, & Shafqo, 2006; Capelli, 2001). The last decade has also seen explosive growth of electronic job boards and integrated applicant tracking systems, with social media the latest evolution of technology-enhanced recruitment. Over 50 percent of human resource professionals now use social networking sites for recruitment, most frequently LinkedIn (95 percent), Facebook (58 percent), and Twitter (42 percent) (SHRM, 2011). For example, UPS attributed just under 1,000 new hires to social media efforts in 2010 (Raphael, 2011). Cincinnati Children’s Hospital Medical Center regularly uses YouTube as a means of promoting to employment brand via videos depicting its culture and current events (Blasheb Baldock, personal communication, February 7, 2011).

This rapid evolution is expected to continue with dynamic customized job postings that use cookie-based targeting to communicate job advertisements to relevant individuals based on their online behaviors, incorporation of mobile technology to access Internet-based job information, use of semantic search technologies and advanced search syntax with sophisticated search engines, and the application of convergence models that provide opportunity information wherever an individual happens to be on the Internet—including job boards, social media, online gaming sites, and mobile platforms (Rosharith, 2011).

We suggest that electronic job boards, recruitment Web sites, and social media platforms such as LinkedIn are not simply more efficient electronic versions of paper-based job postings, classified ads, or employee referrals. Instead, we suggest that Internet-based technology has changed the nature of organizational communication, recruitment practices, and job seeker expectations in ways that warrant substantial additional research attention. Thus, this article has two primary purposes: to identify key ways technology-based recruitment is changing recruitment paradigms and to identify a future research agenda to aid scholars in pursuing these issues. This chapter complements and extends Dineen and Solis (2011) in at least three ways. First, whereas their chapter focused on the recruitment literature as a whole, we delve more specifically into Internet-based recruiting and expand on their brief treatment of Internet-based approaches. Second, we focus on identifying four specific paradigm shifts associated with Internet recruiting as a means of expanding the repertoire of future research possibilities. Third, we map these paradigm shifts onto key established theories that help explain them.

Definition and Scope
For purposes of this chapter, we define Internet recruitment as the means by which organizations and their agents use Internet-based technologies to develop relationships with potential job candidates, generate applicant pools, maintain viable applicants, and encourage desired candidates to join those organizations. This definition integrates prior definitions (e.g., Barber, 1998; Braug, Macan, & Grambow, 2008; Dineen & Solis, 2011) with the focus on candidate relationship development and maintenance that we develop later in the chapter. We believe relationship building with promising job candidates is a cornerstone of the Internet-based recruitment approach and often occurs well before companies attempt to generate applicant pools from those promising candidates. For example, organizations have begun to develop relationships with talented individuals using Internet-based means before actual vacancies exist (and thus before the need to generate an applicant pool).

We intend in this chapter to provide an overview of the ways Internet technology has fundamentally changed the nature of recruitment. We do not intend to provide a comprehensive review of every study that has been conducted on the subject of Internet-based recruitment, but to focus on critical work that has occurred with an aim toward illuminating these fundamental differences. Nor do we necessarily seek to identify and explore all possible ways Internet technology is used in recruitment. For example, we will discuss methods such as Internet job boards, Twitter, and Facebook throughout this chapter. However, we acknowledge that by the time this chapter is published, newer methods are likely to emerge, making any attempt to identify all possible methods ineffectual. At the same time, by focusing on prior scholarly work, identifying several current uses of Internet technology, and identifying ways we believe the Internet has fundamentally changed recruitment, we will necessarily identify critical
gaps in the current research literature in terms of studying the mechanisms and processes by which the Internet differs from traditional approaches. It is our hope that the research questions we identify along the way will be broad enough to encompass additional Internet-based recruitment methods that are emerging in the years and decades ahead.

Thus, the primary focus of this chapter is on identifying key paradigm shifts associated with Internet technology use in recruitment. Figure 21.1 provides an overview of our approach. As shown, we identify two overarching themes that we believe capture the essence of change in the recruitment area brought about by Internet technology: the nature of information exchange and levels of agent control. These two themes are further broken down into four primary paradigm shifts that will frame the majority of the chapter: media richness, customization, push-pull communications between organizations and job seekers, and decentralization of the recruitment function to a broader base of employers. Each paradigm shift is further described in Figure 21.1 by a primary change statement and a series of specific change mechanisms. Finally, we map nine relevant theoretical perspectives onto these four primary paradigm shifts.

Following Figure 21.1, the chapter will progress as follows. First, we review the existing literature by identifying how Internet-based recruitment fits into the most recent process model of recruitment and by providing an overview of critical Internet-based recruitment research that has occurred to date. From this research, as well as from discussions with actual field recruiters and purveyors of the practitioner literature, we identify and discuss the four key dimensions by which Internet-based recruitment is fundamentally differentiated from traditional means of recruitment, and we discuss specific mechanisms and theories as they apply to these key differentiators and why they matter. Finally, we describe where future research needs to go to keep pace with developments in this area. After more than a decade of research on Internet-based recruitment, this chapter therefore serves a critical need to take stock of research progress during that time, identify how the landscape has changed, and begin to plot a course toward using what the field has accomplished thus far so as to advance it to where it needs to go to better inform organizations in their Internet-based recruitment pursuits.

Literature Review: Generating Viable Candidates Stage

Dineen and Solits (2011) provide a model of the recruitment process that, similar to that of Bafint (1998), spans three stages: generating viable candidates, maintaining the status of viable applicants, and postoffer closure. Dineen and Solits (2011) identify key processes, strategies, and considerations within each stage, as well as important contextual considerations across the stages. We believe research on Internet recruitment is warranted across these stages and processes. Within the generating viable candidates stage, targeting and messaging strategies are most relevant to the current chapter. For example, in terms of targeting strategies, companies must decide whether to target individual job seekers or take a broader approach, or whether to target active or passive job candidates. As we will become apparent, advances in customization capabilities and social media applications via the Internet directly impact these targeting decisions. Moreover, strategies include dissemination of information to job seekers regarding likely fit with jobs or organizations (e.g., Dineen & Solits, 2011). As such, we begin the discussion by focusing on the how and when of when during the recruitment process this is accomplished.

More Stages and Key Processes

In Dineen and Solits (2011) stage of maintaining the status of viable candidates, it is again relationship management issues facilitated by Internet technologies that are vasty (although perhaps not fundamentally) different from traditional recruitment processes. In addition, relationships are likely to be more distributed, meaning that more organizational representatives are now likely to be connected to job seekers. A similar phenomenon likely occurs at Dineen and Solits’s (2011) postoffer closure stage. Finally, we view Internet technology as impacting virtually all the processes Dineen and Solits (2011) identify at the bottom of their Figure 21.1. For example, the greatly enhanced interactive and aesthetic capabilities of the Internet relate directly to job seeker information processing and signaling phenomena (e.g., Brough et al., 2008). Advances in social networking and support building are also ubiquitous via Internet technology, despite some debate over the quality of relationships developed and maintained using Internet means. Even competitive intelligence (i.e., gathering, analyzing, and distributing information by which to make strategic decisions) is fundamentally enhanced, as both job seekers and recruiters have greater access to and control over information about each other and competing opportunities in the broader labor market.

Previous Internet-Based Recruitment Research

Despite the Internet’s potential to broadly impact all three stages of recruitment, previous research on Internet-based recruitment has tended to focus primarily on the generating applicants stage of recruitment and the nature of organizational Web sites (see Dineen & Solits, 2011, for a review).

Some of this research has been descriptive in nature. For example, Feldman and Klass (2002) surveyed managers and professionals searching for jobs via the Internet. They found that job seekers perceived the Internet as more effective than newspaper ads but less effective than personal networking. Characteristics of their job search (e.g., geographical scope) influenced the likelihood of using the Internet. Design issues (e.g., information, navigation) affected satisfaction with Internet job searching. As another example, Colver, Brown, and
Levy (2004) presented a qualitative description of the form, content, and function of the recruitment Web sites used by companies listed in Forrester's Best Work For.

Other studies have drawn from media richness theory (Drift & Lengel, 1986) and technology acceptance models (Davis, 1989) to examine the interplay of organizational and personal-environment (PE) fit and attraction or application decisions. In an initial study, Dineen, Aeh, and Noe (2002) found that random, manipulated feedback regarding likely person-organization (PO) fit (“it appears that your fit with this company would be 80 percent [40 percent]”) that followed a candidate self-assessment on the site were associated with higher (lower) levels of attraction, compared with attraction among those in a control condition, and that job seeker agreement with the feedback strengthened this relationship, and lower self-esteem caused individuals who received lower levels of feedback to indicate lower attraction. In a follow-up study, Dineen et al. (2007) found that when appropriate cues were used in a job advertisement, customization increased viewing time and information recall. In addition, the poorest fitting job seeker were less affected when aesthetics and customization information were provided, lending credence to the notion that customized information disproportionally causes poorly fitting job seekers to self-select out of applicant pools. Dineen and Noe (2009) found more evidence linking customization to higher quality applicant pools in a study that witnessed improved job advertisement and made application decisions based on those advertisements.

Limited research has directly compared Internet-based and other types of recruitment communication. Cable and Yu (2006) found that career fairs were perceived as providing richer and more credible information than Web sites or electronic job boards. Zornans and Landis (2002) found that applicants preferred paper job postings to Internet-based postings, but that attractiveness was positively related to the quality of recruitment Web sites. Limited research has also compared subsurfaces within Internet-based recruitment: for example, Jusarru and Sinan (2003) found that general job boards were less effective in terms of filling position-specific job boards.

Therefore, there is a vibrant and growing body of research on Internet-based recruitment. However, these efforts have largely focused on exploring how organizational Web site design interacts with myriad other factors to influence applicant attraction. While these efforts are important, we believe there is even more value in thinking more broadly about how technology may be changing the very nature of recruitment communication and the relationships among organizations, recruiters, and active and passive individuals. We turn now to discussing these fundamental changes.

Changing Recruitment Paradigms

Taken together, the preceding literature review and key processes and strategies adopted prior to recruitment models (e.g., Dineen & Solis, 2011) suggest several mechanisms by which Internet-based methods or sources influence individual job seeker reactions and behavior. We briefly review these mechanisms next, before using them to discuss the subsequent section how the Internet has fundamentally altered the recruitment paradigm.

Mechanisms Underlying Paradigm Shifts

Specifically, we have identified nine key mechanisms that underlie the proposed recruitment paradigm shifts presented about by the Internet (see Figure 21.1). Five pertain to message or media characteristics, and two each pertain to job seeker cognitions and interactions with the environment. In terms of message/media characteristics, one mechanism by which the Internet is changing recruitment is by altering trade-offs among reach, targeting, and richness. Traditionally, strategic recruitment message design has required making decisions about the relative importance of, for example, reaching a broad versus targeted audience or providing limited versus extensive information. We discuss how the Internet alters these trade-offs, allowing extensive information to be provided to a wider audience. A second mechanism relates to how user experiences with an organization can evolve over time. For example, channel expansion theory (Czarniawska & Zybrzydowicz, 1999) suggests that some ostensibly lean media, such as email, can become richer over time as users become more experienced. Similarly, we discuss how increased richness can evolve over time as users interact with organizational recruitment media. Two other mechanisms relate to acknowledging that the use of technology shifts the game by giving an important role in understanding job seeker cognitive processing. For example, extensive research on technology acceptance (e.g., Davis, 1989) suggests that ease of use and usability are key components that influence how users interact with technology. Thus, we discuss the role of the ease by which a job seeker can navigate information provided through specific media, as well as perceptions of how useful the information is to the job seeker in terms of the extent to which it informs the decision helps him or her evaluate the suitability of job opportunities. Finally, credibleness is a key mechanism by which recruitment messaging in general (Allen, Van Scoyoc, & Ordonez, 2004) that may be particularly important in the Internet-based recruitment arena (Breen, 2008). Breaugh et al. (2008) reviewed four aspects of credibility, all of which relates to our discussion below: presenting balanced information about the position, employee testimonials, access to employees to discuss the position, and external verification avenues.

In terms of job seeker cognition mechanisms, uncertainty reduction is another key recruitment process that may be particularly relevant to Internet-based recruitment, given the explosion of available information. Job seekers, like other decision-makers, tend to be "cognitive misers" and seek to reduce uncertainty in their environments by adopting or relying on certain decision aids (Fishbein & Taylor, 1984). That is, they look for cognitive "cues" or shortcuts to aid their decision-making and reduce uncertainty (e.g., Rindova & Medchenkova, 2005).

At the same time, research suggests that information seekers allocate different resources to different types of information (Petty & Cacioppo, 1986). Job seeker cognitive involvement refers to how much effort job seekers exert to carefully process recruitment information to which they are exposed. Thus, we discuss how uncertainty reduction and cognitive involvement aid understanding of the impact of the Internet on recruitment.

Finally, two mechanisms pertain to job seeker interaction with their environments. Relationship development refers to building interpersonal ties during the recruitment process, typically between job seekers and organizational representatives. Relationship building necessarily implies greater access to information about the organization. Second, PE fit perceptions refer to a mental calculus performed by job seekers by which they assess their own characteristics and preferences (e.g., in terms of their skills, abilities, or values) and compare this with what the environment (i.e., new organization or job) will offer them so as to develop a perception of fit that likely drives actual attraction and application decisions (e.g., Cable & Judge, 1996; Chapman, Uggerslev, Carroll, Paseantin, & Jones, 2005; Dineen & Noe, 2009; Kruezel-Brown et al., 2005).
Once again, given advances in Internet technology, there is now a greater quantity, and the potential for a greater quality, of information available regarding jobs and the recruitment process. This has implications for the accuracy with which job seekers can perceive and process this information to form accurate (or inaccurate) perceptions of organizations and the perceived attractiveness of organizations associated with the advertised opportunity (Cable, Alman-Smith, Mulvey, & Edwards, 2000).

In the next section, we discuss four ways the Internet has fundamentally shifted the recruitment paradigm. As shown in Figure 21.1, two of these shifts pertain to the way information is exchanged with job seekers, and two pertain to levels of actor control, with actors comprising both job seekers and organizational representatives. We acknowledge the potential for some overlap across these fundamental shifts, but we believe our differentiation is most suitable for future Internet-based recruitment research.

**Paradigm-Shifting Dimensions: Richness**

A first way the Internet has shifted the recruitment paradigm is by changing the nature of and expectations about communication richness during the recruitment process. Specifically, as indicated in Figure 21.1, the Internet has fundamentally changed the sensory quality of information presented during the recruitment process, especially in the earliest stages. Persuasive communication about jobs and organizational attributes is a key component of recruitment (Allen, Van Scotter, & Orondo, 2004). Media richness theory (MRT) suggests that communication media vary in terms of richness, and that the fit between richness and message characteristics plays an important role in determining communication effectiveness (Daft & Lengel, 1984, 1986). For example, communication richness is a function of the opportunity for immediate feedback and two-way conversation; the ability to convey multiple types of cues; the ability to convey a sense of personal focus and language variety (Schmitz & Fulk, 1991).

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communication technology, even those that may not initially seem well suited to recruitment commu-
nication. For example, on instant messaging (IM), despite some reservation (e.g., D’Maggio & Powell, 1983) that job seekers may come to view organizations slow to adopt current technologies as less legitimate, organizations that have experienced them may increase as job seekers move through stages of the recruitment process and develop relationships with the organization and its agents. For example, initial visits to an organization’s recruitment Web site may have a very different experience from visit-
tors who have visited the site previously, custom-
ized their interests and search parameters, received feedback concerning, possible fit, and interacted electronically with organizational representatives. Thus, it is apparent that the experience of richness may differ depending on when in the recruitment process it is experienced.

A fourth mechanism relates to cognitive involve-
ment of job seekers and their reliance on central versus peripheral cues in decision making. Job seek-
ers become involved in processing recruitment mes-
sements to different degrees, such that they are more involved in processing certain messages or paths of messages than they are in processing others. Here, the elaboration likelihood model of persuasion (ELM; Petty & Cacioppo, 1986) has received due attention in the recruitment literature (Cable & Tipton, 2001; Join, Shultz, & Chapman, 2006; Luevros & Haasis, 2003; Roberson, Collins & Oreg, 2005), more recently in regard to Internet-based approaches (e.g., Dineen & Nee, 2009; Maurer & Cook, 2011). This model suggests that deeper pro-
cessing of information is likely to occur when the processor (e.g., job seeker) is both able and moti-
vated to process the message. Motivation is thought to depend on message characteristics such as per-
sor relevance or vividness.

Specifically, because of the enhanced personal relevance of Internet-based technology is likely to lead to increased job seeker involvement and deeper infor-
mation processing, especially early in the recruit-
ment process. Later in the process (e.g., during a job interview, or contemplating a job offer), individuals are likely already highly involved in processing the information presented. Traditionally, recruitment interven-
tment messages were likely to be low-involvement communication (e.g., newspaper or magazine ads, brochures, job postings). Internet-based technol-
ogy allows individuals to be much more interac-
tively involved (e.g., creating online profiles, using

interactive search engines to look for opportunities, participating in online assessments or fit checks, maintaining online presences, and following search engines to create a job seeker's Twitter account, following corporate blogs, participating in online recruiter chats and webcasts). Further, individuals have their own opt-in choice among various online profiles, job boards, discussion rooms, webinars and asynchronous (e.g., e-mail) communication methods. The ELM suggests that this increased involvement will increase user involvement, leading to more careful information processing.

Finally, media richness implies a credibility mech-
anism by which true perceptions are fostered in the organization advertising the position. For example, Allen et al. (2004) found that recruitment messages that conveyed more information were perceived to be more credible. In addition, richer media in terms of interactivity (asynchronous video-voicemail chat) are likely to conjure up greater credibility per-
ceptions among job seekers. Edwards and Cable (2009) found that trust of the organization and in the recruitment message was a primary mechanism linking perceptions of individual and organizational values to positive work outcomes.

CUSTOMIZATION

A second way we believe Internet technology has fundamentally shifted the recruitment landscape is via customization capability. Customization refers to the provision of information that is specifically directed at, and is personally relevant to, an individ-
ual job seeker, based on information that job seeker has either knowingly or innocently supplied (e.g., Dineen et al., 2007).

Thus, as shown in Figure 21.1, this shift is pri-
marily in terms of message specificity. For example, prior to an application decision, a job seeker might provide anonymous information about personal values preferences via a Web site. These responses can then be compared to responses of current employees that reflect the organization’s values, and self-diagnostic feedback regarding likely degree of subjective fit (i.e., mathematical fit; Kim & Brockett, 2006). Further, profile data supplied to the job seeker’s Web site (Dineen & Nee, 2009). As another example, many individuals maintain upwardly specific current openings but in anticipation of the possibility that relevant positions may become available. In turn, organizations sometimes create redesign positions in response to skill sets of desir-
able candidates.
FROM "PUSH" TO "PULL"

A shift in the recruitment paradigm brought about by Internet technology is the relative balance between "push" and "pull" strategic recruitment approaches. Discussed most often in market-oriented supply chains, push strategies focus on organizations disseminating information or products to target audiences who are likely to benefit from or need such information or products. For example, newspaper or general press campaign disseminated to a largely unsolicited audience fall under a push approach. Conversely, a pull approach focuses on the consumer; in our case, the job seeker, as the active agent in the transaction. That is, the job seeker actively pulls information deemed necessary for his or her job search rather than having this information pushed on him or her by companies.

It is recognized that the Internet makes it much easier for job seekers to apply for a multitude of jobs in a short amount of time, and to access a great breadth of company- and third-party-sponsored information that is less costly to provide than in the past (Lievrouw & Harris, 2003). For example, rather than waiting for the Sunday newspaper job advertisements to come out (i.e., "be pushed" out to job seekers), job seekers can now more easily find and access via the Internet information they deem useful to their job search at any time. Thus, as shown in Figure 21.1, this shift can be described primarily in terms of candidate control. Although our discussion of customization above may overlap somewhat with the pull approach, we will describe the mechanisms by which the pull strategy works, along with relevant theoretical perspectives, to illuminate this paradigm shift.

A first mechanism by which the Internet facilitates a pull approach to recruitment is through the proliferation over the last several years of candidate relationship development and management (Lievrouw & Harris, 2003; Roberts, 2008). Simply put, companies are now focusing, through their Internet-based recruitment approaches, on not merely trying to lure job candidates to apply for open positions, but on developing relationships with star players in a given industry, whether those stars are active or passive job seekers (e.g., Brough, 2008).

For example, Cincinnati Children's Hospital Medical Center calls Facebook and LinkedIn profiles and approaches potentially interesting sites. From this initial contact, this approach attempts to develop one-on-one relationships and either currently entice contacts to consider employment with their organization or that which they are interested in. Once established, these encourages the company to develop a long-term pool of talent by educating potential job seekers about the company and its recent developments. Somewhat similarly, successful in providing focused groups of potential candidates with periodic information that might help them professionally but at the same time educate them about the company and build the company's brand, in hopes of eventually enticing them to consider working for the company (e.g., Sullivan & Burnett, 2011).

Blau (1953) characterized job seekers as active (e.g., those actively engaged in job pursuit with organizational agents for specific openings) or passive (e.g., those who may keep abreast of labor market conditions and opportunities, perhaps by reading newspaper classified ads, but not actively pursuing a specific opening). Traditionally, organizations have struggled with how to reach passive job seekers, sometimes assuming that highly employed individuals may be more significant and desirable than those actively searching for employment. The candidate relationship management mechanism is clearly borne out of social network theory (e.g., Borgatti & Foster, 2003). Social network theory suggests that social networks and network characteristics play a key role in shaping individual perceptions, decisions, and behaviors.

Second, once again the notion of job seeker cognitive involvement is highly relevant to the pull approach to recruitment. Specifically, by enhancing user control over the pull approach guarantees that job seekers are only accessing information they deem personally relevant and useful. This then relates to a fundamental mechanism—usability—to the extent that information gleaned by a job seeker via a pull approach will necessarily be more useful to that job seeker. Consider again the implications of the Technology Acceptance Model (TAM; Davis, 1989). The TAM suggests that technology is most likely to be adopted and used when it is both usable (meaning in meeting the user's needs) and easy to use. Thus, reliance on technology-mediated communication requires attention to messaging that is beyond current and how the message is delivered. In order to attract attention and engage interest, technology-mediated recruitment communication must work with the technology to ensure that the message is both instrumental (i.e., usable) and easy. In addition, according to the ELM (Petty & Cacioppo, 1986), job seekers are most likely to process information more carefully, leading to a deeper level of cognitive resources perspective (e.g., Kanfer & Ackerman, 1989) who suggest that individuals have finite capacity to cognitively process information. By allowing job seekers to pick and choose what content they receive, they are likely to fill their cognitive "space" with information more useful to them, thus avoiding less useful information that would unnecessarily fill their cognitive space under the traditional push-based recruitment paradigm.

Fourth, in comparison with more traditional push approaches, a recruitment pull approach acts as an uncertainty reducing mechanism. Again, by allowing for greater user control, a pull approach affords the job seeker greater capability to access the information he or she deems most critical to reducing uncertainty about the most relevant aspects of the company or job. This then relates to a fifth mechanism, which involves assessing key job and organizational characteristics for appropriateness levels of PE fit. For example, through candidate relationship management, a passive job seeker can choose to pursue information about the latest new product initiatives being narrowed to him or her through social media channels. Or that job seeker has a direct line of communication via social media to a company representative should the job seeker have a quick question about a proposed overseas expansion of the company. Such a question can be directed toward the company representative well before the job seeker ever applies for a job or even indicates a direct interest in working for the company. Pre-Internet, such correspondence would have typically come after a formal job application (and probably much later in the recruitment/selection process; e.g., by telephone) or, if pre-application, might have seemed out of place (e.g., hearing about a proposed overseas expansion on a radio news report or just calling a company representative out of the blue to ask more questions about it).

This uncertainty reduction mechanism, brought about by enhanced user control and ability to quickly and precisely access needed information, can be tied to image theory (Bech, 1993). As described earlier, image theory states job seekers as relying on perceived information in order to screen opportunities out of their consideration set. As supported by studies such as Reeves et al. (2006), these variations tend to carry more "weight" than corresponding positive information does. With traditional push strategies, however, companies would not typically push information that would likely be viewed as a violation by a large segment of job seekers (unless adopting a realistic job preview approach, Wannous, 1980). Even with more traditional Internet-based approaches that rely on static information placed on a Web site, companies are known to embellish their images (e.g., Younig & Font, 2005).
Thus, a job seeker’s task of uncovering violations to effectively screen out opportunities is more arduous. However, with a push approach, job seekers can quickly access information they know may reveal violations of job/organizational characteristics critical to those job seekers. For example, a job seeker who is a smoker can quickly find their potential companies’ policies about smoking on their website. Another example is that they can check off-site work opportunities.

Finally, credibility is a key mechanism related to the pull approach that is grounded in trust theory and research. For example, Van Hoye and Lieveen (2009) found that information provided by third parties had more credibility. In addition, as one recruiter pointed out, use of real-time social media recruitment necessarily implies the need for a continuous stream of information about a recruiting company, versus static information that might have been placed in a print advertisement (or even a website) under the more traditional pull strategies. Furthermore, raising candidates, build relationships, and create a more active and passive job market. For example, the strength of weak ties (e.g., Dineen & Solis, 2011) and the social media channels. Somewhat counterintuitively, this perspective suggests that weak ties may be more useful for job seekers because they expose the individual to a wider and more diverse range of information than strong ties, which may contain more redundant information. Although there is some mixed evidence about whether strong or weak ties are more effective (see Dineen & Solis, 2011), the importance of social networks and weak ties seems to be borne out by the growing use of social networks and social media channels. Specifically, because job seekers, through informal relationships or company-sponsored links, now have access to a wider range of company insiders, those job seekers rely on many more sources within a company from which to draw recruitment information relevant to their job searches. Consistent with this trend, messages are less uniform in their dissemination to different job seekers because (1) disinformation can now come from multiple organizational representatives who might not be sending consistent messages and (2) job seekers can choose which messages suit them, also making them more consistent. For example, when multiple company insiders are responsible for posting disinformation to different job seekers about topics like organizational culture, typical work weeks, or how much socializing occurs outside of work, job seekers can choose which messages they likely are consistent. While this has always happened to a certain extent during later stages of the recruitment process, its potential early in the process is unprecedented.

Decentralization

A fourth and final way the Internet has fundamentally altered the recruitment paradigm is by decentralizing the recruitment function. Consistent with Figure 2.11, this change manifests in terms of the breadth of contact between job seekers and organizational representatives. For years, organizations tended toward the centralization and standardization of recruitment processes by hiring professional recruiters, requiring managers to complete standardized position requisitions, and crafting company-wide recruiting messages. Indeed, one of the most robust findings in recruitment research has been that in career services, recruiters tend to source more successful candidates precisely because this method provides candidates with unique information they could acquire nowhere else in the recruitment process. However, Internet technology—especially that related to the proliferation of social media—has pushed recruitment processes down to virtually every employee in a company, such that everyone in a sense is now a recruiter (whether they are associates or managers). Indeed, supervisors have repeatedly stated that employees are the best resources for attracting candidates, in part because they possess relevant professional expertise and experience.

Specifically, because job seekers, through informal relationships or company-sponsored links, now have access to a wider range of company insiders, those job seekers rely on many more sources within a company from which to draw recruitment information relevant to their job searches. Consistent with this trend, messages are less uniform in their dissemination to different job seekers because disinformation can now come from multiple organizational representatives who might not be sending consistent messages and job seekers can choose which messages suit them, also making them more consistent. For example, when multiple company insiders are responsible for posting disinformation to different job seekers about topics like organizational culture, typical work weeks, or how much socializing occurs outside of work, job seekers can choose which messages they likely are consistent. While this has always happened to a certain extent during later stages of the recruitment process, its potential early in the process is unprecedented.

Decentralization of recruiting via Internet technology is likely to set in motion at least three relevant mechanisms by which the Internet (versus traditional media) will influence job seeker perceptions: relationship building, fit assessments, and credibility. First, with current employees either purposefully or innocuously becoming recruitment agents through the organization via social networking channels, more individualized relationships are likely to develop between organizational members and job seekers, rather than a job seeker relating to perhaps only a few organizational members in the job search process. Thus, relationship development and management is a key mechanism by which the Internet is changing the face of recruitment.

Here, social network theory is highly relevant (e.g., Borgatti & Foster, 2003; Brass, 1995), as social network theory informs us how companies reach both active and passive job candidates, build relationships with them, and use their ties to reach even more potential candidates. For example, the strength of weak ties argument (e.g., Granovetter, 1973), used mostly to describe the benefits accrued to job seekers of having a large number of weakly connected ties, can also be used to describe organizations’ efforts to find new information about and reach potential job candidates, for example via Internet-based social media channels. Somewhat counterintuitively, this perspective suggests that weak ties may be more useful for job seekers because they expose the individual to a wider and more diverse range of information than strong ties, which may contain redundant information. Although there is some mixed evidence about whether strong or weak ties are more effective (see Dineen & Solis, 2011), the importance of social networks and weak ties seems to be borne out by the growing use of social networks and social media channels. Specifically, because job seekers, through informal relationships or company-sponsored links, now have access to a wider range of company insiders, those job seekers rely on many more sources within a company from which to draw recruitment information relevant to their job searches. Consistent with this trend, messages are less uniform in their dissemination to different job seekers because disinformation can now come from multiple organizational representatives who might not be sending consistent messages and job seekers can choose which messages suit them, also making them more consistent. For example, when multiple company insiders are responsible for posting disinformation to different job seekers about topics like organizational culture, typical work weeks, or how much socializing occurs outside of work, job seekers can choose which messages they likely are consistent. While this has always happened to a certain extent during later stages of the recruitment process, its potential early in the process is unprecedented.
Thus, decentralization likely affects all three stages of the recruitment process. It may be most important in screening applicants by providing a larger number of potential sources of information and other signals. However, decentralization may be uniquely important when maintaining applicants, including those who join their job search of their own free will. This is because, after hiring because of the potential for myriad sources of ongoing and perhaps conflicting information. That is, while candidates are evaluating the organization and making decisions about employment, they now have more sources of information. Substantial research has investigated which factors are most important in making job choice decisions. However, research is needed that considers which information sources, many of which may now be outside HR’s control, candidates rely on. We have also suggested that decentralization can lead candidates to acquire not only conflicting information but also idiosyncratic promises that may or may not be met. Substantial research has investigated the role of realistic information and met expectations on positive job performance and turnover; however, research may be needed that considers the role of decentralized sources of information in managing perceptions and positive outcomes.

**Future Research Agenda**

As should be evident from the foregoing review and integration, there are several fruitful directions for future research on Internet recruitment. Indeed, despite our review of progress in date, we continue to agree with Playboy’s (2006, p. 875) conjecture that research on Internet-based recruitment has "barely scratched the surface." Therefore, we provide a framework below that will hopefully translate into a research agenda for the field moving forward.

First, given the changes documented above, several traditional areas of recruitment research may be in need of updating. For example, one of the most researched topics in recruitment concerns the impact of recruitment sources on long-term outcomes such as job performance and turnover (Zedeck & Winstead, 1980). Future research may need to address how Internet-based sources compare in terms of subsequent performance and retention, both across more traditional sources and within different types of Internet-enabled sources. However, beyond this, we believe it is less fruitful for the field to continue to merely pursue questions of "whether or not" Internet recruitment should be used, but rather the apparent and partial pull or outcomes or more distal outcomes that might result.

As evident from practitioner accounts and data (e.g., Roosheime, 2011; Shrum, 2011), organizations use Internet-based tools in a wide range of ways. For example, high-information recruitment practices are more effective when prior product knowledge is high. Similarly, in an Internet context, it might be that reactions to or use of Internet sources, such as product, firm, or job search characteristics, such that job seekers are more prone to use these in their job search. We examined evidence that recruitment web site characteristics such as job seeker expectancies and use over time (Carlson & Zmud, 1999). Research is needed on whether users experience become richer over time as they interact with Internet-based recruitment media such as organization Web pages and even how job seeker expectancies and use evolve over time as technologies develop. For example, research has shown that individuals react negatively to time lapses and communication delays during recruitment; future research may need to address whether expectations about appropriate delays are evolving in the digital age.

Recruitment scholars may also benefit from drawing more extensively on research in other fields related to technology use. We see opportunities for recruitment researchers to draw from the information systems literature to identify ways to study job seeker search patterns or customization capabilities for companies offering different types of job search services. Such integration might allow companies to put the right jobs in front of the right job seekers at the right time. Researchers already draw from the TAM (Davis, 1989) to suggest how the ease of use and usefulness of technology impact use. Future research into these issues would be of great value for organizations considering the best technologies to use for recruitment purposes. There may also be useful research concerning how individuals search the Internet for information that would be relevant to recruiting.

To illustrate this point, we provide an example from the marketing area. Take a 35-year-old male using the Internet to make three separate purchasing decisions—a flat screen television from a national electronics store, a restaurant at which to eat with an old friend who has come into town, and a Caribbean cruise with his family. We believe there may be marked differences in how this man will interact with Internet media in making purchasing decisions as varied as these. Scholars might begin to identify dimensions by which Internet job seekers (or passive candidates) might be differentiated and use studies to address exchange patterns among job seekers in these categories. For example, in this example, two notable categories might be the permanence of the decision (permanent as in the
flat screen or transitory as in the vacation or res- trau_ and the price of the decision (especially as in the restaurant choices are expensive as in the case of

that it is similar, among job seekers, the antici- pated tenure of the job seeker (i.e., anticipated per-

This is not to say that the personal information of
can be used to help job seekers in their search for
different search engines or job boards. The
decentralization of recruitment can lead to mixed and
even conflicting messages being delivered, research
into the effects of conflicting signals and message
inconsistency from various sources on applicant
credibility, and job choice would be valuable. We
may, through such research, be able to determine
which sources of information provide stronger sig-
als to prospective applicants.

Another "actor control" issue pertains to differ-
ences in reactions to information that is "pushed" to
job seekers versus information the job seeker
himself or herself "pulls" from Internet sources. For
example, it might be possible for researchers to
control laboratory experiments that vary with
whether the exact same information is pushed to
job seekers or is pulled by job seekers who find the
information and process it themselves. Differences
in reactions to such information, in terms of appli-
cation decisions, depth of information processing,
and so forth could be examined. The decentraliza-
tion perspective suggests more extensive research
into the role of social networks in recruitment. It
has long been recognized that who you know and
networks is obtaining a job. However, research into
the changing nature of social networks might add
issues such as the role of the Internet in building
networks (e.g., through LinkedIn or other social
media platforms), the nature of Internet-based
links, and whether the size or breadth of online
social networks affects the speed or quality of job
search outcomes.

Related to suggestions for better contextuali-
Zation of Internet recruitment research, we believe that
companies need to explicitly consider their recruit-
ment goals before deciding on Internet recruitment
approaches or methods. For example, one question
has to do with whether technology use in recruit-
ment is driven more by organizational or human
capital strategy, or by Internet recruitment trends
current in the environment, and how these differe-
tially effect decisions for more of a shift toward
assessing applicant pool quality (e.g., Dineen &
Noe, 2009; Maurer & Cook, 2011). However,
beyond the context specific to this task, we believe the repertoire of possible goals and success in need of consideration should be expanded.

For example, scholars might consider improvements in
company reputation, brand equity, product sales, or
other outcomes not directly associated with
applicant pool outcomes.

Finally, the pervasive impact of technology and the
Internet may require new conceptualizations of the
recruitment process as a whole. Most past
recruitment models depict a non-linear recruitment process composed of sequential stages (e.g., Barber, 1998) or discussion points (Carlsen & Connerley, 2003). The Internet may be altering the very nature of the process, moving toward a fluid process that is less linear. For example, organizations are increas-
ingly maintaining Internet-based social networks of
former and potential employees, attempting to
manage signals and communicate fit even though an
current opportunity exists. They are in a sense
manipulating applicants and attempting to influ-
ence future job choice before reaching the stage of
generating applicants for a particular opportunity.
That is, many Internet recruitment methods and
approaches are likely to spill over to other areas, cre-
vating new and innovative recruitment platforms.

One benefit of the Internet is that it provides new
opportunities for research on job seekers, and
additional research in critical areas. Thus, we
identified key ways technology-based recruitment is
changing recruitment paradigms. By developing a
future agenda grounded in these ideas, we hope to
courage scholars to continue pursuing these critical issues.

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