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FEATURE ARTICLE

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Getting social in selection: How social networking website content is perceived and used in hiring

Christopher J. Hartwell[1] | Michael A. Campion[2]

[1]Jon M. Huntsman School of Business, Utah State University, Logan, Utah

[2]Krannert School of Management, Purdue University, West Lafayette, Indiana

Correspondence
Christopher J. Hartwell, Jon M. Huntsman School of Business, Utah State University, 3555 Old Main Hill, Logan, UT 84322-3555.
Email: chris.hartwell@usu.edu

Abstract

The use of social networking websites (SNWs) during employee selection is gaining popularity in organizations. Using a foundation that integrates identity and situational strength theories, we develop a conceptual framework that differentiates SNW information from information gathered through traditional selection procedures, and distinguishes between SNW types. Research questions and hypotheses are tested using a survey of 291 hiring professionals. Results indicate that SNW content is considered useful and is regularly utilized during hiring. Some SNW content is viewed positively (e.g., information supporting qualifications), while other information leads to negative perceptions (e.g., discriminatory comments). Finally, results support a differentiation between personal and professional SNW, as the kind of information sought and the effectiveness of assessing various work-related constructs differs between these SNW categories.

KEYWORDS

ability/knowledge/skills, other assessments, recruitment, selection/placement

1 | INTRODUCTION

The organizational practice of using online social networking website (SNW) information to learn about job applicants is rapidly increasing (Nauen, 2017), though it is generally not a part of the formal selection process (Ross & Slovensky, 2012). Because of a lack of research on SNWs in hiring, many have urged caution regarding the practice (Kluemper, Rosen, & Mossholder, 2012; Ployhart, 2012; Roth, Bobko, Van Iddekinge, & Thatcher, 2016; Smith & Kidder, 2010). Thus, research is vital to help answer important questions surrounding the use of SNWs in hiring, and to provide practical guidance for moving forward (McFarland & Ployhart, 2015).

In proposing a comprehensive research agenda regarding SNWs in organizations, McFarland and Ployhart (2015) outlined a variety of key theoretical questions specific to a selection context. Most of the initial research has thus far focused on answering questions regarding validity (e.g., Kluemper & Rosen, 2009; Kluemper et al., 2012; Van Iddekinge, Lanivich, Roth, & Junco, 2016) and applicant reactions (e.gAguado, Rico, Rubio, & Fernández, 2016; Madera, 2012; Peluchette & Karl, 2008). Although these outcomes are critical to understand, we also need to know how recruiters are using SNWs and their perceptions regarding SNW information if we want to understand and improve the process. Therefore, the current research seeks to understand the prevalence of SNW screening in the hiring process, while addressing other important questions posed by McFarland and Ployhart (2015, p. 1667): (a) "What specific content has the strongest effect on subsequent employer impressions?" and (b) "What specific features of applicant social networking sites most influence impressions?". Only two prior studies have focused on these questions.

Bohnert and Ross (2010) used student participants and mock Facebook profiles to show that having a professional- or family-focused SNW profile increased perceived qualifications and likelihood of a job offer, and an alcohol-focused profile did the opposite, in comparison to having no SNW presence. This study provided some important initial information but did not differentiate between different SNW content (photos, posted information, background information, etc.) or SNW types (only using a Facebook-like simulation),

and the use of student participants may not generalize to actual human resources (HR) professionals. Finally, the study did not make any attempt to theoretically explain perceptual differences.

Roulin and Bangerter (2013) utilized a free-response format that offered insights regarding professional recruiter perceptions of the Facebook profile of a mock job applicant. Results indicated that personal information, professional information, and profile picture were the most frequently mentioned Facebook content categories, and extroversion and conscientiousness were the two personality traits most likely to be inferred from such information. The use of actual recruiters' open responses allowed for an initial understanding of which SNW content they focused on, but the recruiters were limited to information from one mock Facebook profile.

We build upon these studies to address the focal questions in the current study, making three main contributions to the research literature. First, we use a theoretically based framework to differentiate between SNW types and the information contained therein. Specifically, we use a theoretical integration of identity theory (Stryker, 1980; Stryker & Burke, 2000) and situational strength theory (Meyer, Dalal, & Harmida, 2010; Mischel, 1973) to develop a framework that explains how SNW information differs from typical applicant information and how SNW platforms differ from each other. Second, we use this framework to develop research questions and hypotheses regarding how HR professionals perceive and utilize SNWs during employee selection. Third, we utilize a sample of practicing HR professionals whose jobs include recruiting and hiring, thus helping ensure generalizability of the findings compared to studies using student samples.

2 | THEORETICAL FOUNDATIONS AND HYPOTHESIS DEVELOPMENT

Two relevant psychological theories—Identity Theory and Situational Strength Theory—help to explain recruiter perceptions of candidate SNW information. Moreover, their integration leads to additional insights when differentiating between professional and personal SNW platforms. In this section, we briefly describe both theories, show how they yield complementary perspectives, and develop an integrative framework for describing how recruiters perceive and make decisions based on SNW. The result is a theoretical framework and set of hypotheses for how SNW is perceived and influences hiring decisions.

2.1 | Identity theory and situational strength theory

Identity theory (Stryker, 1980; Stryker & Burke, 2000) states that an individual's *self* is composed of numerous identities that correspond with various roles that the individual holds within a structured society. For example, one may hold the role of a mother and of a doctor, each corresponding to a particular identity. Each identity is a cognitive construction that acts as a framework for interpreting interactions, understanding expectations, and enacting behavior. The number of identities carried by one individual is commensurate with the number of distinct networks of relationships held (Stryker & Burke, 2000). These various identities may complement or conflict with each other (Touré-Tillery & Light, 2018), and individual behavior is dependent on which role is activated in each situation (Newark, 2014; Stets & Burke, 2000). The identity activated through SNWs is different than that activated through traditional selection procedures (e.g., with candidates likely less guarded about revealing their identity in SNWs than in an interview), and different SNW platforms are also likely to activate different identities, based on purpose (e.g., professional vs. personal).

Because specific identity activation is contextual, situational strength theory (Meyer et al., 2010; Mischel, 1973) provides additional insight. This theory states that situations provide different implicit or explicit cues which signal behaviors that are desirable in that context. Strong situations include more behavioral cues, and thus elicit behavior that is more contextually controlled. Weak situations, in contrast, consist of relatively few cues, eliciting a wider range of behaviors. Meyer and colleagues (2010) proposed four related situational strength categories: *clarity* (the availability and ease of understanding cues), *consistency* (the compatibility of various situational cues), *constraints* (the extent to which one's decisions and actions are limited by outside forces), and *consequences* (the extent of positive or negative implications to the self or others). While these categories were developed to describe situational strength in work contexts, our research expands this conceptualization by integrating it with identity theory to describe SNW contexts. SNW information is valuable because it reflects a weaker situation than a job interview or responses to an application blank. This lessens outside influence on behaviors, meaning SNW information may be reflective of behaviors that more completely and accurately reveal an applicant's overall character (McFarland & Ployhart, 2015; Slovensky & Ross, 2012). This has been suggested by research that shows that other-rated personality using SNW information significantly correlates with self-rated personality (Back et al., 2010; Kluemper et al., 2012).

2.2 | Framework for explaining recruiter perceptions of SNW types

Combining the perspectives of identity and situational strength theories improves the utility of both in a SNW context and allows the development of a theoretical framework that better explains recruiter perceptions of SNWs and rating decisions based on those perceptions. SNW content is a projection of the social identities of the applicants, and different SNW contexts provide different levels of situational cues. One important contextual factor is SNW type, especially the distinction between professional SNWs (e.g., LinkedIn) versus personal SNWs (e.g., Facebook) (Nikolaou, 2014; Roulin & Bangerter, 2013). These different SNW contexts are likely to activate different identities, which leads to different available information. For example, a personal SNW context is a weak situation

where candidates reveal information that they would not reveal in a stronger situation, thus providing complementary information to what is normally available during the hiring process. This unique SNW information is what recruiters are looking for to provide a competitive advantage in hiring. Table 1 summarizes the key theoretical differences and the implications for recruiter perceptions between three contexts: (a) traditional (active) selection procedures, (b) professional SNWs, and (c) personal SNWs. Each is described in more detail below.

2.2.1 | Traditional (active) selection procedures

In traditional selection procedures, the applicant provides information in response to organizational solicitation. We refer to these as *active* procedures, because the organization actively solicits information, and the applicant actively provides information in response. For example, an applicant completes an application, responds to assessment items, or answers interview questions. While there will be some situational strength differences dependent on the procedures used and how they are implemented, active selection procedures are generally strong across all four situational strength categories. In terms of clarity, they provide readily available and understandable cues, such as explicit instructions or items that require a specific response. Consistency is also strong because these procedures consistently support an overall goal (hiring the best applicant), and applicants receive cues from the job posting, interview questions, and so forth, regarding the knowledge, skills, abilities, and other attributes (KSAOs) being sought by the organization. This is because effective selection procedures are generally based on job analysis and are structured to be consistent in an effort to increase reliability and validity (e.g., Campion, Palmer, & Campion, 1997, in employment interviews; Siddique, 2004, in HR in general). Strong constraints are present because applicants are limited to providing only information requested by the organization. Finally, consequences are strong because a job offer decision is often directly dependent on the behaviors and information provided by the applicant.

Because of the very strong nature of active selection procedures, they activate a job applicant identity (a professional identity specifically related to the available job), driving behaviors that are narrowly focused and tailored directly to the job at hand. Job applicants are incentivized to engage in impression management behaviors that emphasize their strengths and minimize negatives (Knouse, Giacalone, & Pollard, 1988; McFarland, Yun, Harold, Viera, & Moore, 2005). Applicants may even embellish or lie to best fit the expectations of the organization (Birkeland, Manson, Kisamore, Brannick, & Smith, 2006; Levashina & Campion, 2007).

2.2.2 | Professional social media

In contrast to active selection procedures, screening SNW content is a passive procedure that requires no direct organizational solicitation or applicant input. Instead, the recruiter takes advantage of the asynchronous nature of the SNW context and high permanence of SNW information (McFarland & Ployhart, 2015) to seek out content previously posted by the applicant and judge how it might relate to the job. Prior selection research has typically used Facebook as an

TABLE 1 Integration of identity and situational strength theories to explain recruiter perceptions by SNW context

Situational cues	Traditional (active) selection procedures (e.g., application, interview)	Professional social media (e.g., LinkedIn)	Personal social media (e.g., Facebook)
Clarity	Strong	Moderate	Weak
Consistency	Strong	Moderate	Weak
Constraints	Strong	Moderate	Weak
Consequences	Strong	Moderate	Weak
Overall	Strong	Moderate	Weak
Identity activated	**Job applicant**	**Professional**	**Personal (specific personal identity activated will vary)**
Implications	• Candidate limited to responding to direct hiring inquiries • Candidate will use impression management to appear as qualified as possible • Candidate will use impression management to minimize or omit information that may be viewed negatively by the organization	• Candidate can tailor professional accomplishments, history, and products. • Candidate may provide a large depth of professional information (e.g., work experience, education, skills, recommendations) • Candidate may provide little (if any) nonprofessional (personal) information	• Candidate behavior is largely unconstrained • Candidate may provide a wide breadth of personal and social information (e.g., vacations, family, favorite movie/music, feelings, emotions) • Candidate behavior likely corresponds more closely to the true self • Candidate may provide little (if any) professional information

indicator of SNWs in general, without differentiating between SNW types (see Kluemper & Rosen, 2009; Kluemper et al., 2012; Van Iddekinge et al., 2016), but there are theoretical reasons for making an initial distinction between professional and personal SNWs, as summarized in Table 1 and outlined below.

Professional SNW platforms focus on users' professional identity and network. The largest of these—LinkedIn (www.linkedin.com)—boasts more than 600 million members worldwide. These platforms provide more moderate cues than active selection procedures. Clarity and consistency are moderate because the purpose behind professional SNWs is clearly to promote a professional identity and users are cued with specific categories of information, but users are encouraged and enabled to tailor their profile and the included information to match their own preferences. Constraints are moderate because the format of professional SNW platforms encourages professional information (work history, education, etc.) that provides standardized expectations consistent with strong situations (LePine, Hollenbeck, Ilgen, Colquitt, & Ellis, 2002), but also allows for user discretion. For example, LinkedIn allows users to post essays, recommend others, upload photos, and so forth. Consequences are also moderate because behaviors are not directly tied to job decisions, but information provided on professional SNWs can be confirmed or challenged by your professional connections (Carr, 2016; Guilfoyle, Bergman, Hartwell, & Powers, 2016), and is viewable by other users. Users may also be recruited and receive job offers due to professional SNW profile content.

Overall, professional SNW platforms are moderately strong situations that activate a broader professional identity than the very strong active selection context. Thus, they may provide a larger range of information about one's professional identity than would be gathered using active selection procedures, but the behaviors and information on professional SNWs are still largely limited to the professional domain, with little nonprofessional or personal information provided.

2.2.3 | Personal social media

Personal SNW platforms focus on a user's personal identity and network. Facebook is most popular, with over two billion active users (www.facebook.com). Due to the heterogenous audience of personal SNWs, information is provided in a much weaker situation than professional SNWs. Clarity and consistency are both weak because the purpose is ambiguous, the audience(s) are broad and diverse, and how the personal SNW is used greatly varies across users. For example, Facebook is described as a place "to discover what's going on in the world, and to share and express what matters" (www.facebook.com/facebook). To some, this may mean posting pictures of their family vacations, while others choose to share humorous memes and videos. Consequently, constraints are also weak, and users are freer to behave however they choose (though terms and conditions may limit some extreme behaviors, such as nudity or violence). Finally, consequences are weak because, like other day-to-day personal interactions, actions on personal SNWs are typically perceived as casual in nature and not likely to have major positive or negative implications.

This relatively weak situation leads to the activation of various personal identities, with the specific identity activated less defined by the situation and more defined by the salient identities held by the individual user and the audience of the content. Thus, behaviors are largely unconstrained and more variable, with a wide breadth of personal and social information typically available. Personal SNW content may be perceived by hiring managers as a better representation of the applicant's true self, or the "identity important and phenomenally real aspects of self not often or easily expressed to others," (Bargh, McKenna, & Fitzsimons, 2002, p. 34) because personal values are most likely to predict behavior in weaker situations (Klein, Knight, Ziegert, Lim, & Saltz, 2011). In other words, individuals are freer to be themselves on personal SNWs, so recruiters likely perceive user behaviors in personal SNWs as more indicative of the strongest and most core identities inherent in the individual.

2.2.4 | Usefulness and utilization of SNW in employee selection

The integration of identity theory (Stryker, 1980; Stryker & Burke, 2000) and situational strength theory (Meyer et al., 2010; Mischel, 1973) provides a foundation to understand why SNW information may be utilized in making hiring decisions. SNWs provide a weaker situation that elicits a wider variety of information about the job candidate that is likely not available in traditional active selection procedures. Because SNW information is novel and unique, hiring professionals may view it as valuable in the hiring process. However, this information may also be considered less relevant, because it is passive information not tailored specifically to the job (Ollier-Malaterre, Rothbard, & Berg, 2013). Thus, our first research question focuses on whether HR professionals consider SNW information useful in the employee selection process.

> Research Question 1: To what extent do hiring professionals agree that SNW information is useful in employee selection?

If SNW information is perceived as useful in employee selection, utilization of SNW screens in hiring is a logical outcome and establishing that SNW screens are being used in practice will support the practical contribution of studying SNW screens in academic research. Previous surveys have shown that using SNWs to make hiring decisions is becoming a common practice. Surveys from the Society for Human Resource Management (SHRM) show a steady increase from 13% to 39% of respondents using SNW information when hiring over the last 8 years (SHRM, 2008, 2011, 2013, 2016), while seven surveys from CareerBuilder show almost 600% growth in SNW usage (from 12% to 70%) since 2006 (Erwin, 2013; Grasz, 2006, 2008, 2014, 2015, 2016; Haefner, 2009; Hunt, 2012; Nauen, 2017). As informative as these surveys are in understanding general trends, participants were limited to a

dichotomous "yes/no" answer. This direct question may be difficult to answer when SNW information is only sometimes considered (e.g., only for professional jobs or when the applicant might be hiding something). In order to better understand frequency of use, this study parsed out SNW usage along a 5-point scale from "never" to "almost always," similar to Nikolaou (2014). Based on our theoretical foundation, prior industry surveys, and SNW mean usage reported by Nikolaou (2014), we expect that many hiring professionals do view SNW during employee selection. However, given the general lack of prior nuance in examining frequency of SNW usage, the following research question is posed:

> Research Question 2: To what extent do hiring professionals use SNW information during employee selection?

Another area in which there is very little information is examining perceptions of specific SNW information in the hiring context. The only published research on this topic used students as raters and concluded that having an alcohol-based SNW profile negatively affects impressions, while a family- or professional-based profile positively affects impressions, when compared to having no SNW information (Bohnert & Ross, 2010). However, examining how specific SNW content influences employer impressions is identified as a key unanswered question in SNW research (McFarland & Ployhart, 2015). There is academic speculation and industry surveys that suggest provocative photos, alcohol/drug use, profanity, sexual references, religious quotes, sharing confidential information, discriminatory comments, disparaging a current/former employer, and weapons could all negatively affect perceptions (Brown & Vaughn, 2011; Erwin, 2013; Grasz, 2006; Preston, 2011; Roulin, 2014; Van Iddekinge et al., 2016). On the flip side, a wide range of interests, information that supports qualifications, good communication skills, a personality that "fits" with the organization, and online recommendations from others could have a positive effect (e.g., Erwin, 2013; Grasz, 2006; Hunt, 2012).

A similar unanswered question pertains to how a lack of SNW presence, or a SNW profile that includes stringent privacy settings, is perceived (Kluemper et al., 2012; Van Iddekinge et al., 2016). Roth et al. (2016) propose that the uncertainty caused by missing or incomplete SNW information is likely to negatively influence hiring managers' perceptions of applicants; however, the same authors also suggest that applicants who guard their personal information through heightened privacy settings might be viewed more positively, such as possessing higher tech savviness or conscientiousness.

As the extent to which specific information is viewed negatively or positively is not altogether known, a research question is posed regarding how HR professionals' perceptions of applicants are likely to change based on commonly found SNW content, a lack of SNW presence, or stringent privacy settings.

> Research Question 3: How do various types of commonly found SNW information (including a lack of SNW information or stringent privacy settings) affect hiring managers' perceptions?

2.2.5 | Perceptions of professional and personal SNW

Based on the integration of identity theory (Stryker, 1980; Stryker & Burke, 2000) and situational strength theory (Meyer et al., 2010; Mischel, 1973), we hypothesize various differences between professional and personal SNWs. First, professional SNW information is provided in a stronger work-related situation than information provided on personal SNWs. Thus, professional SNW profiles likely contain much more work-related information that can be used to identify positive information, such as the presence of KSAOs, that can be used to screen in qualified applicants. Conversely, personal SNW profiles likely contain a much wider breadth of personal information that may be reflective of the individual's true personality and behavioral tendencies that can be used to identify negative information, or red flags, that can be used to screen out problematic applicants.

Hypothesis 1a *Seeking negative information, as opposed to positive information, will more often be cited as a purpose behind viewing personal SNWs.*

Hypothesis 1b *Seeking positive information, as opposed to negative information, will more often be cited as a purpose behind viewing professional SNWs.*

In order to evaluate the potential role of each of these SNW types in the hiring context, it is important to compare them relative to measurable KSAOs. For an initial comparison, nine KSAOs that relate to performance in a variety of jobs and that are likely measurable using SNWs are considered. We predict that personal SNWs will be perceived as more effective in measuring four of these KSAOs (personality, interpersonal skills, writing ability, and criminal behavior), and that professional SNW will be perceived as more effective in measuring the other five (cognitive ability, educational background, prior work experience, technical proficiency, and professionalism). A brief justification of each KSAO and its corresponding prediction is detailed below.

Personality assessments have often been utilized to predict job performance (Barrick & Mount, 1991; Connelly & Ones, 2010; Oh, Wang, & Mount, 2011), but there is considerable disagreement as to whether personality constructs are valuable in employee selection (Morgeson et al., 2007; Ones, Dilchert, Viswesvaran, & Judge, 2007). However, the potential of assessing personality using SNWs is demonstrated in studies both inside and outside an organizational context (e.g., Kluemper & Rosen, 2009; Kluemper et al., 2012; Marcus, Machilek, & Schütz, 2006; Park et al., 2015), and because SNW information is provided in a weaker situation than active selection procedures, personality measured by SNWs may be more accurate than self-rated personality elicited in a formal hiring assessment (Back et al., 2010; Kluemper, 2013). Because personal SNWs invokes personal identities that are more indicative of true personality (compared to the professional identity invoked in professional SNWs), we predict that personal SNWs will be perceived as more effective when measuring personality.

Interpersonal skills are typically measured using employment interviews (Huffcutt, Conway, Roth, & Stone, 2001) or assessment centers (Arthur, Day, McNelly, & Edens, 2003). However, both procedures are time-constrained strong situations, where typical behaviors may be inhibited. Measuring interpersonal skills via SNWs may also have limitations due to the lack of media richness (Daft & Lengel, 1986) and physicality (McFarland & Ployhart, 2015). Yet viewing actual online interactions with others on SNWs may offer an alternative measure of interpersonal skills that is closer to typical day-to-day behaviors than the strong situations inherent in more traditional selection procedures. Because online day-to-day interactions are more readily available through the personal identities enacted on personal SNWs, we predict that personal SNWs will be perceived as more effective when measuring interpersonal ability.

Written communication is also an important KSAO for many jobs. While typically measured through writing samples, seeing how an applicant interacts with others in a more informal setting may provide unique and valuable insights. This is a major reason why writing ability is a KSAO often cited as being measurable through social media (Brown & Vaughn, 2011; Kluemper, 2013; Van Iddekinge et al., 2016). Because personal SNWs are weak situations with a structure that encourages informal interactions between users to a greater extent than professional SNWs, we predict that personal SNWs will be perceived as more effective when measuring writing ability.

Background checks are a common form of weeding out applicants with prior criminal behaviors that may be problematic to effective job performance (Levashina & Campion, 2009), and examining online information is a more recent form of background checking (Clark & Roberts, 2010). This ability to look for red flags that screen out potentially problematic applicants has often been cited as a purpose of using SNWs in hiring (Davison, Maraist, Hamilton, & Bing, 2012; Grasz, 2006, 2008). This purpose most closely aligns with the use of personal SNWs, as the personal identities enacted are more likely to lead to indicators of criminal activity than the professional identity enacted on professional SNWs. Thus, we predict that personal SNWs will be perceived as more effective when measuring criminal behavior.

Hypothesis 2 *Compared to professional SNWs, personal SNWs will be viewed as significantly more effective in assessing (a) personality, (b) interpersonal skills, (c) writing ability, and (d) criminal behavior.*

Cognitive ability has generally been found to be one of the strongest predictors of job performance (Hunter & Hunter, 1984; Schmidt & Hunter, 1998), though these tests also tend to have an adverse impact (Outtz, 2002; Roth, Bevier, Bobko, Switzer, & Tyler, 2001). One indirect measure of cognitive ability—educational attainment—demonstrates lower adverse impact, along with lower validity (Berry, Gruys, & Sackett, 2006). Through a job application or résumé, an applicant's education is usually available to the hiring organization from the candidate, but this information is less likely to be faked on SNWs, due to additional verifiability by a larger number of connections and viewers (McFarland & Ployhart, 2015). In other words, embellishing may be more likely on an application or résumé that is targeted to and viewed by a few unknown individuals in one organization, compared to a SNW profile that is available to a much larger audience and where the individual's connections would know that the information is inaccurate and could potentially expose it as such.

Social networking website may also contain a wide range of other information reflective of cognitive ability that is not typically on the application or contained on the résumé (e.g., ideas expressed, language used, etc.). As such, SNWs presents another indirect form of measuring cognitive ability (Brown & Vaughn, 2011; Van Iddekinge et al., 2016) that may have lower adverse impact than direct cognitive ability tests, but stronger validities than a narrow measure of educational attainment. The availability and depth of educational background ismore likely to be present with a professional identity, as compared to personal identity. We therefore predict that professional SNWs will be more effective when measuring both cognitive ability and educational background.

Prior work experience is another KSAO that is often measured during the selection process. Such information may predict future job performance (Quiñones, Ford, & Teachout, 1995), though there are questions regarding true predictive validity (Van Iddekinge, Arnold, Frieder, & Roth, 2019). Measuring prior work experience is often done using applicant résumés (Brown & Campion, 1994) or through background-focused interview questions (Hartwell, Johnson, & Posthuma, 2019). Like educational background, that availability and depth of work experience ismore likely in professional SNWs, as compared to personal SNWs. Thus, we predict that professional SNWs will be perceived as more effective when measuring prior work experience.

Specific technical proficiency is often needed in order to effectively perform in a job. While assessments that measure these technical proficiencies are sometimes utilized later in the hiring process, the prior work experience and educational background contained in a job application or résumé are often used to make initial inferences (Brown & Campion, 1994). SNWs offer another avenue for making inferences about technical proficiency (Hunt, 2012; Kluemper, 2013). Professional SNWs, in particular, activate a professional identity that includes information indicative of technical proficiency (e.g., prior work experience, educational background, uploaded work samples, and skill endorsements from others). We therefore predict that professional SNWs will be more effective when measuring technical proficiency.

Finally, professionalism is defined as one's general maturity, competence, and character (see Roberts, 2005), and it is often among the most sought-after positive attributes when hiring managers view SNWs (Erwin, 2013; Grasz, 2006, 2008, 2014; Hunt, 2012). Surprisingly, this construct is virtually ignored in employment selection research. SNWs may offer a means of measuring professionalism through the image a SNW user portrays. For example, the kinds of pictures of the self ("selfies") that are shared, how one interacts with others on their profile, prior professional experience, recommendations from professional connections, and how much personal information the individual divulges could all be used as indicators

of one's professionalism. Because much of this information is more readily available when a professional identity is activated, it is more likely to be found in professional SNWs. Thus, we predict that professional SNWs will be perceived as more effective in measuring professionalism.

Hypothesis 3 *Compared to personal SNWs, professional SNWs will be viewed as significantly more effective in assessing (a) cognitive ability, (b) educational background, (c) prior work experience, (d) technical skills/knowledge, and (e) professionalism.*

3 | RESEARCH METHOD

3.1 | Participants and procedures

The study sample consists of HR professionals with current job duties in hiring who completed an online survey between December 2014 and May 2015. An e-mail with a survey link was sent to members of HR professional associations, recruiters of college graduates, and alumni of HR programs at two U.S. universities. In addition, the survey link was posted online at SHRM Connect (the official SNW platform of SHRM) and six LinkedIn HR groups (HR Professionals Association, Human Resource Professionals, Linked:HR, PHR Linked, SHRM Official, and SHRM Networking). Utilizing these various recruitment methods allowed for a broad sample representing a wide variety of industries, locations, and organizations.

Data collection resulted in 291 responses from 37 U.S. states and 24 additional countries (79% U.S. respondents). Reporting an overall response rate for this survey is not possible, but two of the sources provide some insights. First, the survey was sent to college recruiters, who were all currently involved in hiring and eligible to complete the survey, with a response rate of 19% (61 of 317). Second, the HR professional association members who were sent the survey all listed employment selection as a current function of their job and were eligible to participate. Of the 1,378 deliverable e-mails to this sample, 64 participants completed the survey—a response rate of 5%. These response rates are within range of similar academic and industry surveys using databases of HR professionals (e.g., Chapman & Webster, 2003 [4%]; Datta, Guthrie, & Wright, 2005 [15%]; Rynes, Colbert, & Brown, 2005 [19%]; SHRM, 2011 [18%], 2013 [19%], 2016 [14%]).

Despite the expectedly low response rate (where the response rate can be estimated), the sample was representative of a diverse population of HR professionals. Participants came from the wide range of states and countries represented (as noted above), and a wide variety of industries were represented in the sample. The most prevalent industries represented were business services (26%), manufacturing (18%), education (8%), health care (8%), and government (7%). Hiring experience among participants ranged between 1–22 years, averaging over 12 (M = 12.14, SD = 6.83). Participants recruited and hired for various job types, including professional/technical (85%), management (83%), administrative (64%), and entry-level sales or labor (54%).

Instructions indicated that only those with current hiring job duties were eligible to participate. In addition, one of the initial survey questions asked to participants whether their current job included hiring. If the participants answered "no," then the survey ended. Limiting the sample to include only those presently involved in hiring was done to most accurately represent current hiring practices because the use of SNWs for hiring is a recent phenomenon. To reduce inaccurate and socially desirable responses, participants were not forced to answer any questions. Participants were offered a report of the survey results in return for their participation. Power analyses (Cohen, 1988) indicated that analyses for all hypotheses had power above 0.90 for detecting small effects (d = 0.20) at a level of α = 0.05.

3.2 | Measures

It was important to balance research needs and survey length, in order to create a survey that participants would complete that would also give us valid results. Under the assumption that survey length will inversely influence response rate, we utilized single item measures to represent homogenous constructs (Loo, 2002). All items developed and used for this study can be found in the appendix.

Social networking website usefulness was measured based on agreement with one item on a 5-point scale (from *strongly disagree* to *strongly agree*): *Applicant social media information is useful when making hiring decisions*.

Social networking website *usage* was also measured with one item: *I view applicant social media information during the hiring process*. This was rated on the following 5-point scale: *never* (1), *rarely* (2), *sometimes* (3), *often* (4), and *almost always* (5).

Perceptions of SNW information was measured with a list of 27 pieces of commonly found SNW information that could potentially affect employer perceptions (including a lack of SNW information), based on prior academic research, popular press accounts, and industry surveys. A full list of the 27 items can be found in the first column of Figure 1. For each of these, respondents were asked how the item would impact their image of the applicant. Responses were recorded on a 5-point scale from *I would view the applicant more negatively* (−2) to *I would view the applicant more positively* (2), with a neutral point of *I would not view the applicant more positively or more negatively* (0).

The purpose of using SNW platform, comparing professional and personal SNW was approached using three sequential items, as follows:

1. *Purpose of using SNW:* One item (*What is the purpose [or purposes] of viewing applicant social media information during the hiring process?)* measured the purpose of using SNWs in the hiring process. Responses included: *To find negative information, or red flags*; *To find positive information, such as applicant qualifications*; *To find any previously unknown information available online about the applicant*; and *Other (please specify)*. Respondents were instructed to select all that applied.

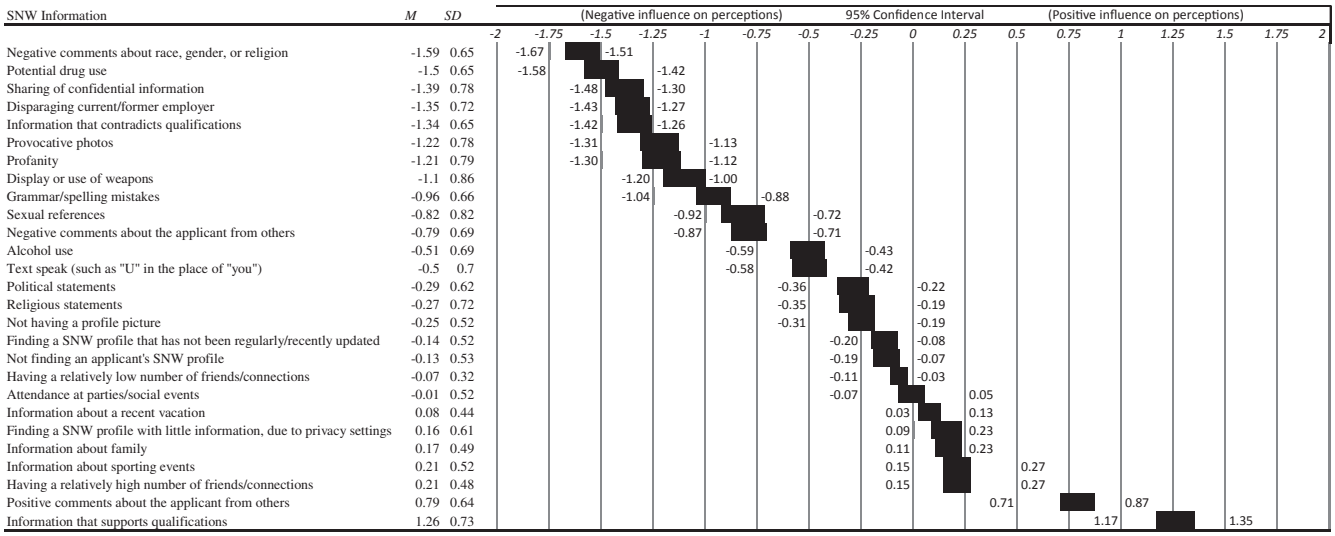

FIGURE 1 Reported Influence of SNW Information on Recruiter Perceptions of Job Applicants. 95% confidence intervals visualized by black boxes, with the low and high values identified to the left and right, respectively

2. *SNW platform(s) used:* This survey item listed seven potential SNW platforms (see footnote 1), and participants were instructed to select any that they used when hiring. The focus of this study is on the differentiation between professional and personal SNWs, as operationalized by LinkedIn and Facebook, respectively.
3. *Purpose of using SNW × SNW platform:* This variable fed back the respondents' responses to items 1 and 2 in a matrix item later in the survey. Previously selected SNW platform(s) were listed as a row on the left-hand side, and previously selected purpose(s) were listed as columns running across the top. Participants were asked to indicate which purpose(s) coincided with each SNW platform, and they could select multiple purposes for each SNW platform.

Constructs measurable by professional and personal SNWs were measured as respondents answered a series of questions regarding how well various constructs could be measured by information found on Facebook (representing personal SNWs) and LinkedIn (representing professional SNWs),[1] each on a 5-point scale ranging from *not at all* (1) to *extremely well* (5). These included one item each (per SNW platform) for personality, interpersonal skills, writing ability, criminal behavior, cognitive ability (labeled *intelligence*), educational background, prior work experience, technical proficiency, and professionalism.

4 | RESULTS

Before examining results relevant to the hypotheses and research questions posed, two geographic differences of the sample should be highlighted. Compared to U.S. participants (n = 230), international participants (n = 61) found SNW information more useful ($M_{U.S.}$ = 3.33 [$SD_{U.S.}$ = 1.06], M_{int} = 3.72 [SD_{int} = 0.92]; t[286] = 2.67, p < .01) and were more likely to use it during the hiring process ($M_{U.S.}$ = 3.02 [$SD_{U.S.}$ = 1.47], M_{int} = 3.61 [SD_{int} = 1.22]; t[287] = 2.90, p < .01). No other meaningful demographic differences were found.

4.1 | Research question results

Research Question 1 concerned the extent to which hiring professionals agree that SNW information is useful in employee selection. Results indicated that over half of respondents (51%) agreed or strongly agreed that SNW information is useful, while only 18% disagreed or strongly disagreed. The overall mean (3.41) and 95% confidence interval (*CI*) (3.29–3.53) were higher than the neutral scale point of 3, suggesting that hiring professionals generally view SNW information as useful in hiring.

Research Question 2 concerned the extent to which hiring professionals use SNW information during employee selection. Results demonstrated that 18% of respondents never use it, 18% use it rarely, 21% sometimes use it, 18% use if often, and 25% use it almost always. Overall, 82% of survey respondents use SNW to some extent (at least rarely), and 43% use SNW regularly (*often* or *almost always*). These results demonstrate that the use of SNW information is a common occurrence during employee selection.

The final research question examined how common SNW information affects hiring managers' perceptions of a job applicant. As Figure 1 indicates, 19 items had a negative influence on perceptions, as indicated by a negative mean and a 95% *CI* that did not include zero. The most severe negative reactions (those with means lower than −1) came from discriminatory comments (negative comments about race, gender, or religion) (M = −1.59), potential drug use (M = −1.50), sharing of confidential information (M = −1.39), disparaging a current or former employer (M = −1.35), finding information that contradicts qualifications (M = −1.34), provocative photos (M = −1.22), profanity (M = −1.21), and the display or use of weapons (M = −1.10). Seven

items were perceived positively, most notably information that supports qualifications (M = 1.26) and positive comments about the applicant from others (M = 0.79). Only one item (*attendance at parties/ social events*, M = −0.01) had a 95% *CI* that included zero.

A post hoc exploratory factor analysis of the 27 items using oblique rotation identified 7 factors with an eigenvalue over 1. Examining factor loadings over 0.40 (Pituch & Stevens, 2016), the seventh factor did not contain any unique items (each loaded on another factor as well). Thus, the analysis was run again while fixing the number of factors to six, resulting in the factor loadings found in Table 2. We label these six factors (1) *red flags*, (2) *personal information*, (3) *profile features*, (4) *personal views*, (5) *qualifications*, and (6) *social*. Two items did not load on any of the factors—sharing of confidential information (highest on *red flags* factor [.382]) and display or

TABLE 2 Factor structure of perceptions of applicant SNW information

SNW information	Factor 1 (red flags)	Factor 2 (personal info)	Factor 3 (profile features)	Factor 4 (personal views)	Factor 5 (qualifications)	Factor 6 (social)
Potential drug use	***0.797***	−0.026	−0.037	0.161	−0.033	−0.041
Provocative photos	***0.796***	0.068	0.034	0.009	−0.021	−0.090
Profanity	***0.731***	−0.096	0.055	−0.131	0.092	0.038
Alcohol use	***0.619***	0.021	0.183	0.028	0.036	−0.295
Disparaging current/former employer	***0.595***	0.162	−0.07	0.00	−0.159	0.161
Negative comments about race, gender, or religion	***0.534***	−0.048	−0.003	−0.162	−0.194	0.305
Sexual references	***0.485***	−0.134	−0.046	***−0.486***	0.089	0.080
Information about family	−0.035	***0.755***	0.033	0.059	−0.030	−0.134
Information about sporting events	−0.043	***0.738***	−0.027	0.008	−0.048	0.066
Information about a recent vacation	0.066	***0.719***	0.038	−0.164	0.121	0.054
Not finding an applicant's SNW profile	−0.019	0.025	***0.802***	0.043	−0.087	−0.027
Finding a SNW profile with little publicly available information, due to privacy settings	0.092	0.091	***0.685***	−0.058	0.247	0.008
Finding a SNW profile that has not been regularly or recently updated	0.024	0.121	***0.614***	−0.045	−0.091	0.094
Having a relatively high number of friends/connections	0.042	0.371	***−0.558***	−0.028	0.002	−0.079
Not having a profile picture	−0.022	−0.027	***0.533***	0.042	−0.379	−0.127
Having a relatively low number of friends/connections	0.033	−0.018	***0.478***	−0.045	0.099	***0.660***
Religious statements	−0.084	−0.031	0.00	***−0.857***	0.135	0.054
Political statements	−0.042	0.138	0.036	***−0.779***	−0.023	−0.144
Text speak (such as "U" in the place of "you")	−0.001	0.171	−0.007	***−0.536***	−0.388	0.033
Information that contradicts qualifications	0.067	0.269	0.018	0.084	***−0.676***	0.186
Information that supports qualifications	−0.074	0.187	0.033	−0.082	***0.581***	0.051
Positive comments about the applicant from others	−0.074	0.303	−0.097	0.092	***0.546***	0.319
Negative comments about the applicant from others	0.157	−0.163	0.164	−0.360	***−0.478***	−0.162
Grammar/spelling mistakes	0.061	0.084	0.186	−0.288	***−0.464***	0.106
Attendance at parties/ social events	0.217	0.397	0.153	−0.135	0.102	***−0.447***
Sharing of confidential information[a]	0.382	0.116	−0.080	−0.001	−0.363	0.329
Display or use of weapons[a]	0.327	−0.135	−0.085	−0.355	−0.043	0.068

Note: This table utilized the factor loadings of a pattern matrix from a direct oblimin oblique rotation that converged in 14 iterations in SPSS. Bold italicized loadings are above 0.40.

[a]These items did not load above 0.40 on any of the factors.

use of weapons (highest on *personal views* factor [−0.355]). While the 27 individual items and 6 resulting factors are not exhaustive, they do provide a useful initial categorization of SNW information related to hiring manager perceptions.

As a second part of this research question, among the items in Figure 1, were a few that focused on a lack of SNW information. Specifically, we asked respondents how they would perceive an applicant if the applicant's SNW profile was not found, if the SNW profile was outdated, if it did not include a profile picture, or if it included little public information due to privacy settings. Outdated or missing SNW information was viewed slightly negative (consistent with Nauen, 2017, and Roth et al., 2016): not having a profile picture (M = −0.25), not regularly or recently updated (M = −0.14), or not having a SNW profile (M = −0.13). Also consistent with Roth et al.'s (2016) propositions, a SNW profile with little information due to stringent privacy settings had a small positive influence on perceptions (M = 0.16).

4.2 | Results of tested hypotheses

Hypothesis 1a predicted that seeking negative information (as opposed to positive information) would more likely be the purpose behind viewing personal SNWs, while Hypothesis 1b suggested the opposite for viewing professional SNWs. To test these hypotheses, we conducted a McNemar (1947) test of differences in nonindependent proportions, comparing the proportion of participants seeking positive or negative information from each SNW type. Results indicated that when personal SNWs were used (n = 122), more respondents looked for negative information (62%) than positive information (41%), a statistically significant difference (χ^2 = 10.03; p < .001) that supports Hypothesis 1a. When professional SNWs were used (n = 205), positive information was sought significantly more often (62%) than negative information (34%) (χ^2 = 27.37; p < .001), supporting Hypothesis 1b.

Finally, Hypothesis 2 and Hypothesis 3 examined the perceived relevance of professional and personal SNWs in measuring various constructs. Hypothesis 2 predicted that personal SNWs would be perceived as more effective than professional SNWs when measuring (a) personality, (b) interpersonal skills, (c) writing ability, and (d) criminal behavior. Hypothesis 3 predicted that professional SNWs would be perceived as more effective than personal SNWs when measuring (a) cognitive ability, (b) educational background, (c) prior work experience, (d) technical proficiency, and (e) professionalism.

Table 3 illustrates the results regarding Hypothesis 2 and Hypothesis 3, including significance using paired-samples t-tests. Hypotheses 2a and 2d were supported, as personal SNWs were perceived as more effective in measuring personality (H2a) and criminal behavior (H2d), though ratings were low for both SNW types relevant to criminal behavior. Hypotheses 2b and 2c were not supported as results indicated that it was professional SNWs (not personal SNWs) that were perceived as better for measuring interpersonal skills (H2b) and writing ability (H2c). Hypothesis 3 was fully supported, as professional SNWs were perceived as more effective in measuring cognitive ability (H3a), educational background (H3b), prior work experience (H3c), technical skills/knowledge (H3d), and professionalism (H3e).

5 | DISCUSSION

Using the theoretical foundations of identity theory (Stryker, 1980; Stryker & Burke, 2000) and situational strength theory (Meyer et al., 2010; Mischel, 1973), this research examined perceptions and utilization of SNW content in hiring. Findings indicate that SNW information is regularly used during the hiring process by nearly half (43%) of HR professionals surveyed, and that only a small minority of respondents (18%) do not use SNWs at all. In addition, HR professionals generally consider SNW information a useful selection tool. These results illustrate the importance of continued research on this new selection procedure, as SNWs are considered useful and being utilized by a sizeable proportion of HR professionals.

Specific SNW content (or lack of information) had an impact on hiring manager perceptions, particularly with negative information

TABLE 3 Perceived effectiveness of personal and professional SNW platforms to measure various constructs

Construct (Hypothesis)	Personal SNW Mean (*SD*)	Professional SNW Mean (*SD*)	*t*	*p*
Personality (H2a)	3.03 (1.10)	2.59 (0.91)	6.60	<.001
Interpersonal skills (H2b)	2.65 (1.01)	2.85 (0.99)	−2.75[a]	.006[a]
Writing ability (H2c)	2.70 (0.94)	3.44 (0.97)	−11.95[a]	<.001[a]
Criminal history (H2d)	1.65 (0.82)	1.49 (0.89)	3.46	.001
Cognitive ability (H3a)	2.36 (0.97)	2.90 (1.01)	−9.87	<.001
Educational background (H3b)	2.28 (0.89)	3.89 (0.98)	−26.05	<.001
Prior work experience (H3c)	2.18 (0.86)	4.00 (0.95)	−27.42	<.001
Technical skills/knowledge (H3d)	1.97 (0.81)	3.66 (1.03)	−25.25	<.001
Professionalism (H3e)	2.55 (1.01)	3.60 (0.96)	−16.33	<.001

Note: *N*s between 267 and 270; Positive *t*-test results indicate that personal SNW was perceived as more effective than professional SNW.
SNW, social networking website, *SD*, standard deviation.
[a]Indicates significant results, but in a nonhypothesized direction.

such as discriminatory comments or evidence of drug use. Factor analysis demonstrated that SNW information could be broken down into six categories that influenced perceptions. Finally, results also aligned with predictions from prior research (Nauen, 2017; Roth et al., 2016) by showing that outdated or missing information had a slight negative impression on hiring managers' perceptions of applicants, while lack of information due to high privacy setting was viewed slightly positive. Together, these results provide evidence that SNW information does influence hiring managers' perceptions of applicants.

Finally, consistent with the theoretical framework developed in Table 1, professional and personal SNWs were perceived differently in a variety of ways. First, the kind of information sought after through each SNW type varied, with negative information being more often sought in personal SNWs and positive information more often sought in professional SNWs. Second, differences in effectiveness of SNW types in assessing various KSAOs were also found. In line with predictions, personal SNW content was perceived as more useful in assessing personality and criminal behavior, while professional SNW content was perceived as more useful in assessing cognitive ability, educational background, prior work experience, and professionalism.

Contrary to our hypotheses, professional SNWs were also perceived as more useful in assessing interpersonal skills and writing ability. This may indicate that HR professionals recognize the importance of considering context (Johns, 2006) when using SNW information in hiring. The behaviors elicited when a professional identity is activated in professional SNWs may better match the behaviors of the work identity activated on the job. Thus, participants view professional SNWs as a stronger indicator of KSAOs like interpersonal skills and writing ability. This is consistent with the finding of this survey (see endnote 1) and other surveys (SHRM, 2011, 2013, 2016) that show that LinkedIn (professional SNW) is used in hiring far more often than Facebook (personal SNW). Overall, the differences demonstrated between personal and professional SNWs underscore the importance of differentiating SNW types in both research and practice.

5.1 | Contributions

This research responds to McFarland and Ployhart's (2015) call to examine the SNW features and content that influence employer impressions and provides various contributions to the literature. First, a theoretical framework is constructed that integrates identity theory (Stryker, 1980; Stryker & Burke, 2000) and situational strength theory (Meyer et al., 2010; Mischel, 1973) to make differentiations between traditional active selection procedures, professional SNWs, and personal SNWs. This integration extends each of the theories into a SNW context, and provides a nuanced framework that explains how SNW information may provide unique value beyond the information typically gained through traditional active selection procedures, while also explaining how information from professional and personal SNWs is likely to be distinct from each other. This framework provides a foundation for this study and could be utilized in similar future SNW research. It also demonstrates that SNWs are not all the same, and recognizing differences in situational strength and the identities enacted by a particular SNW platform provide necessary context to understand what information is likely to be available, and how that information can be used to measure job-related criteria. For example, the theoretical differences between professional and personal SNWs may mean that each should be utilized differently based on the organizational context (e.g., job level, span of control, and organizational industry).

In addition to this theoretical contribution, this research provides practical contributions that shed light on how SNW information is used in the hiring process. First, our survey of hiring professionals confirms and extends results of previous industry surveys by demonstrating that a large proportion of employers regularly utilize SNWs in employee selection and find SNW information useful in making hiring decisions. This was done using a more fine-grained approach that measured how rarely or frequently SNWs are used by respondents, rather than the dichotomous yes/no choice that has been used in prior surveys. While Nikolaou (2014) used a similar approach using a Greek sample, this research adds to his findings using a predominantly U.S. sample.

Second, our survey provides results that indicate what effects various types of SNW information (or lack thereof) have on hiring managers' perceptions of job applicants, directly addressing a major gap in the literature (McFarland & Ployhart, 2015). This information should prove useful in future SNW research, as noted in the *Future Research* section below. Third, the theoretical distinction between professional SNWs and personal SNWs is demonstrated through our empirical results, highlighting the importance of ensuring that differentiating between SNW types—both in research and in practice—when examining SNWs in employee selection.

5.2 | Limitations

While this research provides valuable contributions, there are limitations that must be highlighted as well. First, this study relies on self-report information about HR professionals' perceptions of the usefulness of SNW information, which provides valuable insights into how SNW information is viewed and utilized in a hiring context. However, this study does not examine how those perceptions actually translate into behaviors, or whether those perceptions are valid. For example, Figure 1 shows that profanity on SNW would have a sizable negative influence on perceptions of the job applicant, but how would that actually translate into changes in rating behaviors or hiring decisions, and is that negative perception a valid measure of how well an applicant would fit in an organization or perform the job? There is research that demonstrates that SNW information does impact rating behaviors and hiring process decisions (Baert, 2018; Batenburg & Bartels, 2017; Bohnert & Ross, 2010), but more comprehensive research on the topic is needed.

Second, the generally low response rate from HR participants may limit the generalizability of the results if the sample is not representative of a larger population. However, the many industries and geographic regions represented by our sample, along with the demographic composition, suggest that our sample is likely representative of a broad and diverse population of HR professionals. Those who participated in the study were likely to be those most interested in the topic, which may also impact the generalizability of results. There were also some differences between those in our sample recruited via e-mail and those recruited via social media. Specifically, *t*-test results showed that those recruited by social media were more likely to perceive of SNW information as useful in hiring (M_{social} = 3.53, $M_{e\text{-}mail}$ = 3.29; t[286] = −1.98, p = .049) and to use SNW information in hiring (M_{social} = 3.40, $M_{e\text{-}mail}$ = 2.89; t[287] = −3.05, $p \leq .01$). Thus, the method of recruitment has some impact on the interpretation of the results.

Finally, this study does not directly consider the ethicality or legality of using SNW information in the selection process. Ethical issues (such as violations of privacy) and legal risks (such as possible discrimination or lack of demonstrated validity) may hamper the utility of the practice in the United States (McDonald, Thompson, & O'Connor, 2016; SHRM, 2013). However, there are currently no specific U.S. laws or federal court rulings that prohibit the use of SNW information.

5.3 | Future research

There are a variety of directions that future research could take based off the results of this study. While this study demonstrated that applicant SNW information is commonly used when making hiring decisions, and even established how some specific SNW information is likely to change employers' perceptions, it is important to note that behaviors do not always correspond to perceptions (Karren & Barringer, 2002). Thus, future research should move beyond perceptions to examine actual rating behaviors. One way this could be done is by utilizing the information in Figure 1 to develop mock SNW profiles and manipulate key information therein. That would provide strong causal links between information type and rating behaviors. A second way to do this would be to examine real applicant SNW profiles in an actual hiring situation. This method would provide high fidelity and may also allow further investigation into the predictive validity of SNW screening, but also presents several challenges and concerns inherent in the complexity of conducting a field study in such a high-stakes environment (e.g., decisions based on multiple hiring procedures, ethical concerns, applicant reactions, etc.).

This research also solidifies strong differences between two SNW types—which we refer to as professional and personal SNWs. Given these differences, it is important to recognize that not all SNW platforms are the same, and future research should differentiate between SNW types. For example, because seeking positive information that demonstrates qualifications was found to be a major factor in viewing professional SNWs during hiring, professional SNWs may be viewed somewhat similarly to a résumé or application blank, and these selection procedures typically occur early in the hiring process. In contrast, the major factor in viewing personal SNWs during hiring was seeking negative information that would screen out a candidate and remove them from consideration. This type of screen out procedure is not unlike background checks, credit checks, or drug screens, all of which tend to occur later in the hiring process. Thus, best practice for when to view SNWs during the hiring process may depend on which SNW type(s) an employer is using. As a second example, applicant reactions may be positive to an employer viewing applicant professional SNWs, as these profiles are created with the express purpose of establishing a professional identity and network. But applicant reactions are likely to be negative to an employer viewing applicant personal SNWs, as these profiles generally are not created nor maintained for this purpose (Aguado et al., 2016).

Finally, while a differentiation is made between professional and personal SNWs, further differentiation between SNW platforms may also be informative. For example, Facebook, Twitter, Instagram, and Snapchat would all be considered personal SNW platforms. But differences in the functionality, features, purposes, and user demographics likely lead to different levels of situational strength and potentially different personal identities activated. Future research attempting to tease out these differences may be useful. However, SNW platforms and features change so rapidly that it may be difficult for academic research to stay current.

ORCID

Christopher J. Hartwell https://orcid.org/0000-0002-3405-3229

ENDNOTE

[1]LinkedIn and Facebook are, respectively, the biggest professional and personal SNW platforms. Prior surveys show that they are also the most utilized SNW sites during hiring (SHRM, 2011, 2013, 2016). Our survey results confirmed this: LinkedIn (98.7%) and Facebook (58.3%) were the most oft-cited SNW used, followed by Twitter (27.0%), Industry-/Association-specific SNW (14.3%), YouTube (10.0%), Instagram (7.8%), and Pinterest (4.3%).

REFERENCES

Aguado, D., Rico, R., Rubio, V. J., & Fernández, L. (2016). Applicant reactions to social network web use in personnel selection. *Journal of Work and Organizational Psychology*, *32*, 183–190. https://doi.org/10.1016/j.rpto.2016.09.001

Arthur, W. Jr, Day, E. A., McNelly, T. L., & Edens, P. S. (2003). A meta-analysis of the criterion-related validity of assessment center dimensions. *Personnel Psychology*, *56*, 125–153. https://doi.org/10.1111/j.1744-6570.2003.tb00146.x

Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, no self-idealization. *Psychological Science*, *21*, 372–374. https://doi.org/10.1177/0956797609360756

Baert, S. (2018). Facebook profile picture appearance affects recruiters' first hiring decisions. *New Media & Society*, *20*, 1220–1239. https://doi.org/10.1177/1461444816687294

Bargh, J. A., McKenna, K. Y. A., & Fitzsimons, G. M. (2002). Can you see the real me? Activation and expression of the "true self"

on the Internet. *Journal of Social Issues*, *58*, 33–48. https://doi.org/10.1111/1540-4560.00247

Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, *44*, 1–26. https://doi.org/10.1111/j.1744-6570.1991.tb00688.x

Batenburg, A., & Bartels, J. (2017). Keeping up online appearances: How self-disclosure on Facebook affects perceived respect and likability in the professional context. *Computers in Human Behavior*, *74*, 265–278. https://doi.org/10.1016/j.chb.2017.04.033

Berry, C. M., Gruys, M. L., & Sackett, P. R. (2006). Educational attainment as a proxy for cognitive ability in selection: Effects on levels of cognitive ability and adverse impact. *Journal of Applied Psychology*, *91*, 696–705. https://doi.org/10.1037/0021-9010.91.3.696

Birkeland, S. A., Manson, T. M., Kisamore, J. L., Brannick, M. T., & Smith, M. A. (2006). A meta-analytic investigation of job applicant faking on personality measures. *International Journal of Selection and Assessment*, *14*, 317–335. https://doi.org/10.1111/j.1468-2389.2006.00354.x

Bohnert, D., & Ross, W. H. (2010). The influence of social networking web sites on the evaluation of job candidates. *Cyberpsychology, Behavior, and Social Networking*, *13*, 341–347. https://doi.org/10.1089/cyber.2009.0193

Brown, B. K., & Campion, M. A. (1994). Biodata phenomenology: Recruiters' perceptions and use of biographical information in résumé screening. *Journal of Applied Psychology*, *79*, 897–908. https://doi.org/10.1037/0021-9010.79.6.897

Brown, V. R., & Vaughn, E. D. (2011). The writing on the (Facebook) wall: The use of social networking sites in hiring decisions. *Journal of Business Psychology*, *26*, 219–225. https://doi.org/10.1007/s10869-011-9221-x

Campion, M. A., Palmer, D. K., & Campion, J. E. (1997). A review of structure in the selection interview. *Personnel Psychology*, *50*, 655–702. https://doi.org/10.1111/j.1744-6570.1997.tb01488.x

Carr, C. T. (2016). An uncertainty reduction approach to applicant information-seeking in social media: Effects on attributions and hiring. In R. N. Landers, & G. B. Schmidt (Eds.), *Using social media in employee selection: Theory, practice, and future research*. Switzerland: Springer International Publishing.

Chapman, D. S., & Webster, J. (2003). The use of technologies in the recruiting, screening, and selection processes for job candidates. *International Journal of Selection and Assessment*, *11*, 113–120. https://doi.org/10.1111/1468-2389.00234

Clark, L. A., & Roberts, S. J. (2010). Employer's use of social networking sites: A socially irresponsible practice. *Journal of Business Ethics*, *95*, 507–525. https://doi.org/10.1007/s10551-010-0436-y

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.) New York, NY: Academic Press.

Connelly, B. S., & Ones, D. S. (2010). Another perspective on personality: Meta-analytic integration of observers' accuracy and predictive validity. *Psychological Bulletin*, *136*, 1092–1122. https://doi.org/10.1037/a0021212

Daft, R. L., & Lengel, R. (1986). Organizational information requirements, media richness, and structural design. *Management Science*, *32*, 554–571. https://doi.org/10.1287/mnsc.32.5.554

Datta, D. K., Guthrie, J. P., & Wright, P. M. (2005). Human resource management and labor productivity: Does industry matter? *Academy of Management Journal*, *48*, 135–145. https://doi.org/10.5465/AMJ.2005.15993158

Davison, H. K., Maraist, C. C., Hamilton, R. H., & Bing, M. N. (2012). To screen or not to screen? Using the Internet for selection decisions. *Employee Responsibilities and Rights Journal*, *24*, 1–21. https://doi.org/10.1007/s10672-011-9178-y

Erwin, M. (2013, July 2). *More employers finding reasons not to hire candidates on social media, finds CareerBuilder survey*. Retrieved from http://www.careerbuilder.com/

Grasz, J. (2006, October 26). *One-in-four hiring managers have used Internet search engines to screen job candidates; one-in-ten have used social networking sites, CareerBuilder.com survey finds*. Retrieved from http://www.careerbuilder.com/

Grasz, J. (2008, September 10). *One-in-five employers use social networking sites to research job candidates, CareerBuilder.com survey finds*. Retrieved from http://www.careerbuilder.com/

Grasz, J. (2014, June 26). *Number of employers passing on applicants due to social media continues to rise, according to new CareerBuilder survey*. Retrieved from http://www.careerbuilder.com/.

Grasz, J. (2015, May 14). *35 percent of employers less likely to interview applicants they can't find online, according to annual CareerBuilder social media recruitment survey*. Retrieved from http://www.careerbuilder.com/.

Grasz, J. (2016, April 28). *Number of employers using social media to screen candidates has increased 500 percent over the last decade*. Retrieved from http://www.careerbuilder.com/

Guilfoyle, S., Bergman, S. M., Hartwell, C., & Powers, J. (2016). Social media, big data, and employment decisions: Mo' data, mo' problems? In R. N. Landers, & G. B. Schmidt (Eds.), *Using social media in employee selection: Theory, practice, and future research*. Switzerland: Springer International Publishing.

Haefner, R. (2009, June 10). *More employers screening candidates via social networking sites*. Retrieved from http://www.careerbuilder.com/

Hartwell, C. J., Johnson, C. D., & Posthuma, R. A. (2019). Are we asking the right questions? A validity comparison of structured interview question types. *Journal of Business Research*, *100*, 122–129. https://doi.org/10.1016/j.jbusres.2019.03.026.

Huffcutt, A. I., Conway, J. M., Roth, P. L., & Stone, N. J. (2001). Identification and meta-analytic assessment of psychological constructs measured in employment interviews. *Journal of Applied Psychology*, *86*, 897–913. https://doi.org/10.1037/0021-9010.86.5.897

Hunt, R. (2012, April 18). *Thirty-seven percent of companies use social networks to research potential job candidates, according to new CareerBuilder Survey*. Retrieved from http://www.careerbuilder.com/

Hunter, J. E., & Hunter, R. F. (1984). Validity and utility of alternative predictors of job performance. *Psychological Bulletin*, *96*, 72–98. https://doi.org/10.1037/0033-2909.96.1.72

Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review*, *31*, 386–408. https://doi.org/10.2307/20159208

Karren, R. J., & Barringer, M. W. (2002). A review and analysis of the policy-capturing methodology in organizational research: Guidelines for research and practice. *Organizational Research Methods*, *5*, 337–361. https://doi.org/10.1177/109442802237115

Klein, K. J., Knight, A. P., Ziegert, J. C., Lim, B. C., & Saltz, J. L. (2011). When team members' values differ: The moderating role of team leadership. *Organizational Behavior and Human Decision Processes*, *114*, 25–36. https://doi.org/10.1016/j.obhdp.2010.08.004

Kluemper, D. H. (2013). Social network screening: Pitfalls, possibilities, and parallels in employment selection. In T. Bondarouk, & M. R. Olivas-Lujan (Eds.), *Advanced series in management: Social media in human resources management* (pp. 1–21). Bingley, UK: Emerald.

Kluemper, D. H., & Rosen, P. A. (2009). Future employment selection methods: Evaluating social networking web sites. *Journal of Managerial Psychology*, *24*, 567–580. https://doi.org/10.1108/02683940910974134

Kluemper, D. H., Rosen, P. A., & Mossholder, K. W. (2012). Social networking websites, personality ratings, and the organizational context: More than meets the eye? *Journal of Applied Social Psychology*, *42*, 1143–1172. https://doi.org/10.1111/j.1559-1816.2011.00881.x

Knouse, S. B., Giacalone, R. A., & Pollard, H. (1988). Impression management in the resume and its cover letter. *Journal of Business and Psychology*, *3*, 242–249. https://doi.org/10.1007/BF01014492

LePine, J. A., Hollenbeck, J. R., Ilgen, D. R., Colquitt, J. A., & Ellis, A. (2002). Gender composition, situational strength, and team decision-making

accuracy: A criterion decomposition approach. *Organizational Behavior and Human Decision Processes*, *88*, 444–475. https://doi.org/10.1006/obhd.2001.2986

Levashina, J., & Campion, M. A. (2007). Faking in the employment interview: Development of an interview faking behavior scale. *Journal of Applied Psychology*, *92*, 1638–1656. https://doi.org/10.1037/0021-9010.92.6.1638

Levashina, J., & Campion, M. A. (2009). Expected practices in background checking: Review of the human resource management literature. *Employee Responsibilities and Rights Journal*, *21*, 231–249. https://doi.org/10.1007/s10672-009-9111-9.

Loo, R. (2002). A caveat on using single-item versus multiple-item scales. *Journal of Managerial Psychology*, *17*, 68–75. https://doi.org/10.1108/02683940210415933

Madera, J. M. (2012). Using social networking websites as a selection tool: The role of selection process fairness and job pursuit intentions. *International Journal of Hospitality Management*, *31*, 1276–1282. https://doi.org/10.1016/j.ijhm.2012.03.008

Marcus, B., Machilek, F., & Schütz, A. (2006). Personality in cyberspace: Personal Web sites as media for personality expressions and impressions. *Journal of Personality and Social Psychology*, *90*, 1014–1031. https://doi.org/10.1037/0022-3514.90.6.1014

McDonald, P., Thompson, P., & O'Connor, P. (2016). Profiling employees online: Shifting public-private boundaries in organizational life. *Human Resource Management Journal*, *26*, 541–556. https://doi.org/10.1111/1748-8583.12121

McFarland, L. A., & Ployhart, R. E. (2015). Social media: A contextual framework to guide research and practice. *Journal of Applied Psychology*, *100*, 1653–1677. https://doi.org/10.1037/a0039244

McFarland, L. A., Yun, G., Harold, C. M., Viera, L., & Moore, L. G. (2005). An examination of impression management use and effectiveness across assessment center exercises: The role of competency demands. *Personnel Psychology*, *58*, 949–980. https://doi.org/10.1111/J.1744-6570.2005.00374.x

McNemar, Q. (1947). Note on the sampling error of the differences between correlated proportions or percentages. *Psychometrika*, *12*, 153–157. https://doi.org/10.1007/BF02295996

Meyer, R. D., Dalal, R. S., & Harmida, R. (2010). A review and synthesis of situational strength in the organizational sciences. *Journal of Management*, *36*, 121–140. https://doi.org/10.1177/0149206309349309

Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review*, *80*, 252–283. https://doi.org/10.1037/h0035002

Morgeson, F. P., Campion, M. A., Dipboye, R. L., Hollenbeck, J. R., Murphy, K., & Schmitt, N. (2007). Reconsidering use of personality tests in personnel selection contexts. *Personnel Psychology*, *60*, 683–729. https://doi.org/10.1111/j.1744-6570.2007.00089.x

Nauen, R. (2017, June 15). *Number of employers using social media to screen candidates at all-time high, finds latest CareerBuilder study*. Retrieved from http://www.careerbuilder.com/

Newark, D. A. (2014). Indecision and the construction of self. *Organizational Behavior and Human Decision Processes*, *125*, 162–174. https://doi.org/10.1016/j.obhdp.2014.07.005

Nikolaou, I. (2014). Social networking web sites in job search and employee recruitment. *International Journal of Selection and Assessment*, *22*, 179–189. https://doi.org/10.1111/ijsa.12067

Oh, I., Wang, G., & Mount, M. K. (2011). Validity of observer ratings of the Five-Factor Model of personality traits: A meta-analysis. *Journal of Applied Psychology*, *96*, 762–773. https://doi.org/10.1037/a0021832

Ollier-Malaterre, A., Rothbard, N., & Berg, J. (2013). When worlds collide in cyberspace: How boundary work in online social networks impacts professional relationships. *Academy of Management Review*, *38*, 491–502. https://doi.org/10.5465/amr.2011.0235

Ones, D. S., Dilchert, S., Viswesvaran, C., & Judge, T. A. (2007). In support of personality assessment in organizational settings. *Personnel Psychology*, *60*, 995–1027. https://doi.org/10.1111/j.1755-6570.2007.00099.x

Outtz, J. L. (2002). The role of cognitive ability tests in employment selection. *Human Performance*, *15*, 161–171. https://doi.org/10.1080/08959285.2002.9668089

Park, G. H., Schwartz, A., Eichstaedt, J. C., Kern, M. L., Kosinski, M., Stillwell, D. J., … Seligman, M. E. P. (2015). Automatic Personality assessment through social media language. *Journal of Personality and Social Psychology*, *108*, 934–952. https://doi.org/10.1037/pspp0000020

Peluchette, J., & Karl, K. (2008). Social Networking Profiles: An Examination of Student Attitudes Regarding Use and Appropriateness of Content. *CyberPsychology & Behavior*, *11*, 95–97. https://doi.org/10.1089/cpb.2007.9927.

Pituch, K. A., & Stevens, J. P. (2016). *Applied multivariate statistics for the social sciences* (6th ed.). New York, NY: Routledge.

Ployhart, R. E. (2012). Social media in the workplace: Issues and strategic questions. *SHRM Foundation Executive Briefing*, 1–5. Retrieved from http://www.shrm.org/

Preston, J. (2011, July 20) Social media history becomes a new job hurdle. *New York Times*, B1.

Quiñones, M. A., Ford, J. K., & Teachout, M. S. (1995). The relationship between work experience and job performance: A conceptual and meta-analytic review. *Personnel Psychology*, *48*, 887–910. https://doi.org/10.1111/j.1744-6570.1995.tb01785.x

Roberts, L. M. (2005). Changing faces: Professional image construction in diverse organizational settings. *Academy of Management Review*, *30*, 685–711. https://doi.org/10.5465/AMR.2005.18378873

Ross, W., & Slovensky, R. (2012). Using the Internet to attract and evaluate job candidates. In Z. Yan (Ed.), *Encyclopedia of cyber behavior* (Vol. *2*, pp. 537–549). Hershey, PA: IGI Global.

Roth, P. L., Bevier, C. A., Bobko, P., Switzer, F. S., & Tyler, P. (2001). Ethnic group differences in cognitive ability in employment and educational settings: A meta-analysis. *Personnel Psychology*, *54*, 297–330. https://doi.org/10.1111/j.1744-6570.2001.tb00094.x

Roth, P. L., Bobko, P., Van Iddekinge, C. H., & Thatcher, J. B. (2016). Social media in employee-selection-related decisions: A research agenda for uncharted territory. *Journal of Management*, *42*, 269–298. https://doi.org/10.1177/0149206313503018

Roulin, N. (2014). The influence of employers' use of social networking websites in selection, online self-promotion, and personality on the likelihood of *faux pas* postings. *International Journal of Selection and Assessment*, *22*, 80–87. https://doi.org/10.1111/ijsa.12058

Roulin, N., & Bangerter, A. (2013). Social networking websites in personnel selection: A signaling perspective on recruiters' and applicants' perceptions. *Journal of Personnel Psychology*, *12*, 143–151. https://doi.org/10.1027/1866-5888/a000094

Rynes, S. L., Colbert, A. E., & Brown, K. G. (2005). HR professionals' beliefs about effective human resource practices: Correspondence between research and practice. *Human Resource Management*, *41*, 149–174. https://doi.org/10.1002/hrm.10029

Schmidt, F. L., & Hunter, J. E. (1998). The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings. *Psychological Bulletin*, *124*, 262–274. https://doi.org/10.1037/0033-2909.124.2.262

Siddique, C. M. (2004). Job analysis: A strategic human resource management practice. *International Journal of Human Resource Management*, *15*, 219–244. https://doi.org/10.1080/0958519032000157438

Slovensky, R., & Ross, W. H. (2012). Should human resource managers use social media to screen job applicants? Managerial and legal issues in the USA. Info: The Journal of Policy. *Regulation and Strategy*

for Telecommunication, Information and Media, *14*, 55–69. https://doi.org/10.1108/14636691211196941.
Smith, W. P., & Kidder, D. L. (2010). You've been tagged! (Then again, maybe not): Employers and Facebook. *Business Horizons*, *53*, 491–499. https://doi.org/10.1016/j.bushor.2010.04.004
Society for Human Resource Management [SHRM]. (2008). *Online technologies and their impact on recruitment strategies: Using social networking websites to attract talent*. Retrieved from http://www.shrm.org/
Society for Human Resource Management [SHRM]. (2011). *SHRM research spotlight: Social media in the workplace*. Retrieved from http://www.shrm.org/
Society for Human Resource Management [SHRM]. (2013). *SHRM survey findings: Social networking websites and recruiting/selection [PowerPoint slides]*. Retrieved from http://www.shrm.org/
Society for Human Resource Management [SHRM]. (2016). *SHRM survey findings: Using Social Media for Talent Acquisition – Recruitment and Screening [PowerPoint slides]*. Retrieved from http://www.shrm.org/
Stets, J. E., & Burke, P. J. (2000). Identity theory and social identity theory. *Social Psychology Quarterly*, *63*, 224–237. https://doi.org/10.2307/2695870.
Stryker, S. (1980). *Symbolic interactionism: A social structural version*. Menlo Park, CA: Benjamin Cummings.
Stryker, S., & Burke, P. J. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, *63*, 284–297. https://doi.org/10.2307/2695840
Touré-Tillery, M., & Light, A. E. (2018). No self to spare: How the cognitive structure of the self influences moral behavior. *Organizational Behavior and Human Decision Processes*, *147*, 48–64. https://doi.org/10.1016/j.obhdp.2018.05.002
Van Iddekinge, C. H., Arnold, J. D., Frieder, R. E., & Roth, P. L. (2019). A meta-analysis of the criterion-related validity of prehire work experience. *Personnel Psychology*, *72*(4), 571–598.
Van Iddekinge, C. H., Lanivich, S. E., Roth, P. L., & Junco, E. (2016). Social media for selection? Validity and adverse impact potential of a Facebook-based assessment. *Journal of Management*, *42*, 1811–1835. https://doi.org/10.1177/0149206313515524

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APPENDIX

List of survey items developed and used for this study

1. My organization is part of the following industry: Banking/Finance, Education, Government, Health Care, Leisure/Hospitality, Manufacturing, Professional/Business Services, Retail, Transportation, Other (please specify).
2. Do your current job duties include recruiting and/or hiring? (Yes/No).
3. How many years of experience do you have in recruiting and/or selecting employees?.
4. What type(s) of jobs are included in your recruiting and/or hiring duties (select all that apply)? Executive/Senior-Level Officials and Managers, First/Mid-Level Officials and Managers, Professionals, Technicians, Sales Workers, Administrative Support Workers, Craft Workers, Operatives, Laborers and Helpers, Service Workers, Other (please specify).
5. I view applicant social media information during the hiring process: Almost always (5), Often (4), Sometimes (3), Rarely (2), and Never (1).
6. Applicant social media information is useful when making hiring decisions: Strongly agree (5), Agree (4), Neither Agree nor Disagree (3), Disagree (2), and Strongly Disagree (1).
7. Please indicate how discovering each of the following while viewing an applicant's social media content would impact your image of an applicant:
   a. *Columns:* I would view the applicant much more positively (2), I would view the applicant somewhat more positively (1), I would not view the applicant more positively or negatively (0), I would view the applicant somewhat more negatively (−1), and I would view the applicant much more negatively (−2).
   b. *Rows:* Alcohol use; Potential drug use; Information about family; Disparaging current/former employer; Profanity; Religious statements; Sexual references; Provocative photos; Attendance at parties/social events; Grammar/spelling mistakes; Information about a recent vacation; Text speak (such as "U" in the place of "you"); Political statements; Information that supports qualifications; Information that contradicts qualifications; Negative comments about race, gender, or religion; Sharing of confidential information; Display or use of weapons; Information about sporting events; Not having a profile picture; Negative comments about the applicant from others; Positive comments about the applicant from others; Not finding an applicant's social media profile; Finding a social media profile with little publicly available information, due to privacy settings; Finding a social media profile that has not been regularly or recently updated; Having a relatively high number of friends/connections; Having a relatively low number of friends/connections.
   c. *Note: This was a matrix question, where the survey taker responded by checking one of the columns for each row.*
8. What social media website(s) do you use in the hiring process? (Select all that apply.): Facebook, Twitter, LinkedIn, Pinterest, Instagram, YouTube, Industry- or association-specific (please specify), and Other (please specify).
9. What is the purpose (or purposes) of viewing applicant social media information during the hiring process? (Select all that apply.): To find negative information, or red flags; To find positive information, such as applicant qualifications; To find any previously unknown information available online about the applicant; Other (please specify).
10. On the left are the social media websites that you use in the hiring process. On the right are the purposes for viewing social media that you selected. Please indicate what type of information you attempt to gather when viewing each social media website.
    a. *Note: This question listed responses to question #9 above in columns, and responses to question #10 above in rows. Survey takers*

could select one or more columns for each row (i.e., one or more purposes for using each social media platform).

11. The following are factors that are often measured during the hiring process. Please indicate how well you think each of these factors could be measured by information found on Facebook or LinkedIn.
    a. *Columns:* How well could the factor be measured by Facebook? (Extremely Well [5], Very Well [4], Somewhat Well [3], Not very well [2], Not at all [1]); How well could the factor be measured by LinkedIn? (Extremely Well [5], Very Well [4], Somewhat Well [3], Not very well [2], Not at all [1]).
    b. *Rows:* Educational Background, Past Work Experience, Technical Skills/Knowledge, Interpersonal Skills, Writing Skills, Intelligence, Personality, Professionalism, and Criminal History.
    c. *Note: For each row (construct), the survey taker selected one column option for Facebook and one for LinkedIn.*
12. Location of survey taker—U.S. state or country outside the United States—was ascertained by IP address.
13. Survey recruitment source was coded "0" for e-mail and "1" for social media.