

Social Media in Employee-Selection-Related Decisions: A Research Agenda for Uncharted Territory

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Social media (SM) pervades our society. One rapidly growing application of SM is its use in personnel decision making. Organizations are increasingly searching SM (e.g., Facebook) to gather information about potential employees. In this article, we suggest that organizational practice has outpaced the scientific study of SM assessments in an area that has important consequences for individuals (e.g., being selected for work), organizations (e.g., successfully predicting job performance or withdrawal), and society (e.g., consequent adverse impact/diversity). We draw on theory and research from various literatures to advance a research agenda that addresses this gap between practice and research. Overall, we believe this is a somewhat rare moment in the human resources literature when a new class of selection methods arrives on the scene, and we urge researchers to help understand the implications of using SM assessments for personnel decisions.

Keywords: selection/staffing; individual decision making; validation

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Social media (SM) use pervades our society. For example, over 1 billion people use Facebook, and over 500 million people are on Twitter (e.g., Winter, 2013). The current article is motivated by the fact that organizations have recently started to use SM to help make personnel decisions, such as the selection of job applicants—and such use is rapidly increasing. In his *New York Times* best-selling book *The World Is Flat*, Friedman (2007) related that research suggests about half of U.S. organizations are using Google searches in the hiring process (see also Kluemper & Rosen, 2009, or Slovensky & Ross, 2012). For example, 45% of 2,600 hiring managers in the United States reported searching for information on applicants on social networking sites, and 35% of that group did not hire at least one applicant based on the information they found (Stamper, 2010). Indeed, a senior manager for the Equal Employment Opportunity Commission noted that approximately 75% of recruiters are required to do online research of applicants, and 70% of recruiters surveyed reported rejecting individuals as a result (Preston, 2011; see also Seibert, Downes, & Christopher, 2012; Sinar & Winter, 2012). Furthermore, researchers report that organizational use of SM assessment increased approximately 20% from 2010 to 2012 (Winter, 2013). Overall, it appears that SM has “become a new job hurdle” (Preston, 2011: 1, see also Kluemper, in press). In fact, some practitioners suggest that companies that do not use SM (e.g., Facebook) are missing an important opportunity (Hunt, 2010), at least partially because the costs of using such media are very small (Aarts, 2010).

Although organizations use SM to assist in staffing decisions, such use is not well understood by researchers or human resource professionals. Proponents of such assessment practices appear to view the wealth of information available on SM websites in a manner that is akin to a modern gold rush, seeking to reap benefits from the “alluring” amount of available data (e.g., Miguel, 2013: 1). They seem to view SM data as holding the potential to offer insights into the knowledge, skills, and abilities of potential and current employees.

Although reports of corporate use of SM are substantial, there is a large asymmetry when compared to research on such uses of SM. We found over 5,000 citations in a Business Source Premiere literature search on SM use in a business-related context (often including substantial conjecture aimed at practicing managers). In contrast, our searches in PsycINFO found only a few empirical articles (e.g., Henderson & Bowley, 2010; Marcus, Machilek, & Schutz, 2006), including only an occasional empirical journal article related to employee selection (e.g., Kluemper & Rosen, 2009). We also found some review articles (Brown & Vaughn, 2011; Davison, Maraist, & Bing, 2011). However, although they are useful in many respects, neither review provided an in-depth analysis of the theoretical (or some practical) implications of using SM during the staffing process. For example, Davison et al. devoted only about one page to employee selection in a broader review of SM in organizations. They called for predictive validity research and briefly mentioned the issue of adverse impact. Brown and Vaughn only briefly noted the need for content and criterion-related validity research for SM assessments in hiring.

There are substantial opportunities to further SM research. First, it would be helpful to know how SM assessments that target different constructs vary in terms of validity or adverse impact. Second, there is the opportunity to bring more theory to bear on a variety of issues. For example, given that SM information is varied and incomplete, do theories of judgment and decision making under incomplete information help researchers understand how assessors will make judgments about job applicants? Third, there is a need for a systematic agenda

for research on SM in organizations. This is important because the SM research that has been conducted is scattered across different literatures. Previous SM articles are found in domains such as social psychology (e.g., Kluemper & Rosen, 2009) or information technology (e.g., Slovinsky & Ross, 2012), and the literatures are diffuse and sometimes on the fringe of management journals.

The purpose of this article is to develop and articulate a theoretically grounded research agenda for SM in staffing and related areas of research (e.g., withdrawal). To build this agenda, we draw on theory and research from diverse areas, including concepts from judgment and decision making and selection procedure validation. We begin by explaining why SM is generally distinct from other predictors of job performance.

The Uniqueness of Social Media

Definition

While SM assessments can be difficult to define (e.g., see Brown & Vaughn, 2011), we use the term *SM assessments* to represent the review of online information from websites/platforms designed to connect individuals (e.g., Facebook, LinkedIn, Pinterest) for use in employment decisions (e.g., selection, promotion, reassignment).¹ Such assessments likely involve examination of one or more SM websites and, subsequently, one or more judgments of how various pieces of information might predict job performance, withdrawal, or related variables. Such assessments might involve clinical assessment (discussed below), an overall numerical score based on employment suitability, or multiple judgments about a number of individual difference constructs (e.g., dependability, attention to detail) thought to be related to some outcome (e.g., job performance, absenteeism). We also note that decision makers might conduct wider searches of the web (e.g., “Googling” applicants) to find information about applicants (e.g., news articles, public records). Although many of the theoretical and practical implications we discuss may be relevant to such searches, we focus primarily on the use of SM websites as part of the selection process.

Uniqueness

Three related factors suggest that searches of SM platforms constitute new and unique ways to hire job applicants. First, employer searches of SM websites, in contrast to many current selection approaches, do not necessarily *actively elicit job-related* information. For example, cognitive ability tests elicit responses to specific problems, personality tests elicit information used to assess personal characteristics, interviews typically involve face-to-face, audio, or visual interactions between applicants and organizational representatives, and so forth. These assessments tend to target relevant job-related knowledge, skills, and abilities (KSAs), whereas we have not seen any evidence that most SM assessments explicitly do this.

Second, there is a potential mismatch between the purposes of some SM and an organization's use of data drawn from SM. Social technologies are often designed to facilitate social interaction between friends and acquaintances (e.g., Facebook, Google+, MySpace). In contrast, organizations' selection and performance assessments tend to focus on assessing job-related KSAs. SM platforms (also called SM websites or social technologies) typically enable public posting of preferences, pictures, blogs, music, videos, and so on, which might

be only indirectly related to job skills (Black, Johnson, Takach, & Stone, 2012). As developed in more detail later, one possible unintended consequence of searching such SM content is that it could be related to (or help identify) factors such as race/ethnicity, gender, national origin, religion, marital status, pregnancy status, union membership, political affiliation or views, or disability status (Kluemper & Rosen, 2009; Slovensky & Ross, 2012). Making employment decisions based on such personal or demographic information is often prohibited or discouraged by statute or governmental guidelines (e.g., U.S. Equal Opportunity Employment Commission, 1978).

Third, the lack of direct elicitation of job-relevant information and potential mismatch in purposes makes it difficult to structure or standardize SM assessments (Brown & Vaughn, 2011; Miguel, 2013). For example, it is difficult to focus on the same set of dimensions/characteristics of information for all applicants. Indeed, there is no guarantee that applicants use the same SM services/platforms (e.g., Facebook vs. MySpace), nor must they post similar information on any such service. As such, it may be quite difficult to use SM information to assess all applicants on a common set of dimensions or characteristics. Thus, the role of incomplete information and associated judgment and decision-making processes may be quite relevant to SM assessments.

All told, we suggest that assessments based on SM information are a relatively unique way to collect information and predict behaviors in organizational contexts. This method is substantially different than other approaches to staffing (e.g., formal tests or work samples). Given SM's uniqueness (and growth) within organizational assessment, we suggest it deserves substantial research attention.

What We Know About SM Assessments

Despite multiple literature searches, we found only a few research studies on the use of SM assessments. Kluemper and Rosen (2009) examined the ability of SM assessments to measure personality and general mental ability. They used 63 undergraduate students (judges) from an upper-level business course to assess the Facebook pages of six other students from a lower-level course. The judges filled out standardized questionnaires to assess Big Five personality factors and intelligence. The six students whose Facebook pages were assessed filled out similar Big Five questionnaires. Correlations between self-reported personality traits by students and ratings based on judgments from Facebook pages were often in the range of .3 to .5 (see also Kluemper, Rosen, & Mossholder, 2012). A few nonorganizational, social psychology studies found smaller correlations between self-ratings of personality and impressions taken from websites (e.g., Back, Stopfer, Varize, Gaddis, Schmukle, & Gosling, 2010; Marcus et al., 2006). Thus, there is some evidence of moderate levels of convergence between self-report measures of personality and ratings from SM assessors. However, there are often multiple judges used to assess personality in these studies (and it is possible that operational uses of SM assessments might prove less reliable if done with fewer judges).

We found only one published journal article that linked SM assessments to job performance, although we discuss some other emerging research later. Kluemper et al. (2012) trained two undergraduate students and a faculty member to assess the Facebook pages of a sample of employed students. The researchers also obtained supervisory job performance ratings for a subset of the sample. An overall hireability rating (computed from the average assessor hireability ratings) correlated .28 with job performance ratings. While Kluemper et al. (2012) took a first step to connect SM information and job performance, the sample size was

small ($N = 56$) and many research concerns remain. For example, the SM assessments focused on predicting student performance in a hypothetical job of manager in a service industry, yet the available criterion measure was from the students' current (not necessarily supervisory) job. As a reviewer noted, this is a critical issue as this appears to be the only published article that reports the validity of SM assessments, and one article cannot establish a "track record" of validity for an assessment approach.

What We Need to Know About SM Assessments

Given the dearth of empirical and theoretical work on SM assessments, we next develop theory-based propositions and research directions. In four subsequent sections of this article we consider,

- I. Key aspects of the information acquisition process of SM assessments
- II. Links between SM assessments and other constructs in staffing and organizational behavior (including job performance and the notion of validity)
- III. How SM assessments might relate to a number of demographic variables (including the notion of potential adverse impact)
- IV. Applicant reactions to SM assessments

We draw from a number of literatures across these topics. We draw primarily from judgment and decision making for theory that relates to the process of making SM assessments; applied psychology literature for constructs targeted by SM assessments and their relation to outcomes such as job performance; organizational behavior, health promotion, and polling for demographic effects from using SM assessments; and applied psychology (i.e., the model of Hausknecht, Day, & Thomas, 2004) for applicant reactions. The theme of structure/standardization (vs. idiosyncratic assessments) appears throughout the article, and we suggest this variable is important for both research and practice in this area. We primarily maintain a descriptive approach in that we seek to examine how organizations use SM assessments, the associated decision-making processes, and the validity of these inferences. However, we were also asked to take the opportunity to become more prescriptive in the discussion, where we make suggestions for how organizations may wish to proceed with SM assessments. Our overall goal is to bring together, in one place, a variety of questions, theories, and ideas to further research on SM assessments.

I. The Process of Social Media Judgments

A key unexplored issue involves the decision-making processes involved in SM assessments. We suggest that challenges/opportunities involve (a) decision making with incomplete information and (b) the sheer volume of SM information. We title these "process issues" due to their focus on the cognitive processes involved in SM assessment.

Process Issue 1: Coping With Incomplete Information in Social Media Assessments

The role of incomplete information seems to be particularly germane to SM assessments. Almost every other type of selection procedure has the ability to systemically cue and elicit

information from applicants. Yet, as noted above, SM websites are unlikely to have uniformity of information, because many of these sites are not designed for selection purposes (e.g., Facebook is primarily designed for interacting with friends).

Several theories offer opportunities for understanding the role of incomplete information in SM assessments. According to the inferred information model (Johnson, 1987; Johnson & Levine, 1985: 177), people often view missing information with suspicion. That is, decision makers might actively consider why the information is missing (e.g., organizations “leave out” less helpful information when promoting their products or services). Decision makers attempt to cope with incomplete information by cognitively imputing incomplete information (e.g., a long warranty means a dependable product). This theory also predicts that decision makers will have a lingering suspicion of *why* certain information was not available. Such a dynamic suggests that applicants who do not have certain SM information (e.g., no blogs to assess writing communication) could “lose points” relative to other applicants who do have such information.

Similarly, the theory of reasoned action suggests that inconsistent or incomplete information introduces uncertainty into how assessors might evaluate SM content. For example, Jaccard and Wood (1988: 590) suggested that incomplete information increases uncertainty in the estimation of values related to some target (e.g., an attitude such as how much a person likes a product or candidate). The lack of information causes assessors to set the value of unknown information at some subjectively determined average level. The associated uncertainty often leads to incorporation of an additional “devaluation parameter.” For example, applicants who do not have information on their SM sites about attention to detail might be perceived as being below average on this attribute.

Similarly, the policy capturing literature (e.g., Brunswik, 1956) also suggests that assessors might impose a penalty for incomplete information (i.e., overall evaluations are lowered; Ebenbach & Moore, 2000; Jagacinski, 1991, 1995; Yates, Jagacinski, & Faber, 1978). Researchers often invoke the mediating variable of trust to explain why increasing amounts of incomplete information lead to lower evaluations (Ebenbach & Moore, 2000). Indeed, in employment contexts, missing information has an influence in employment scenarios, and penalties for it can be substantial (Jagacinski, 1991, 1995). That is, the risks of hiring a bad employee often are viewed as more serious than failing to hire a good employee. In one study, human resource decision makers rated applications when a question about previous convictions was answered as “no” or “yes with explanation” or was left blank (Stone & Stone, 1987). Participants appeared to view the lack of response as an attempt to cover up negative information, as they rated “yes” and “no information” responses similarly. Thus, we suggest investigation of possible mediators (e.g., trust) to help explain the potentially negative aspects of incomplete SM information and/or use of a devaluation parameter. Given that key components of trust include ability, benevolence, and integrity (Mayer, Davis, & Schoorman, 1995), it may be that a propensity to trust a particular applicant will buffer any negative attributions regarding missing information.

Overall, theory and research from diverging fields converge on the potential negative implications of incomplete information for SM assessment. More specifically, theories suggest that incomplete information results in increased uncertainty about the levels of an attribute of a product or a person, and this often leads to devaluing products/people. Differential, incomplete information on SM websites could make this issue particularly important for

understanding the decision policies of SM assessors. That is, there is potential for more uncertainty/risk when screening individuals with less SM information, and this could lead to lower evaluations for those people. A colleague suggested that it is also possible that decision makers will know that SM assessments may inherently be limited by the lack of posted information and may not be as negatively influenced as some researchers might think. We propose the following:

Proposition 1a: Individuals with missing or incomplete information on SM websites will receive more negative SM assessments than individuals with more complete information.

Proposition 1b: Trust and uncertainty will mediate the negative relationship between incomplete information and lower evaluations.

Process Issue 2: The Role of Negative Information

Weighting Negative Information. It is commonly believed that negative information has a stronger influence on impressions, judgments, and choices than positive information (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). For example, in the impression management literature, the “positive-negative asymmetry effect,” appears to be well accepted (Baumeister et al., 2001). In this effect, negative information is given greater weight in forming general impressions of individuals. Similarly, negative events have stronger and more pervasive effects on daily mood (e.g., David, Green, Martin, & Suls, 1997). A number of reasons for such effects have been advanced. For example, (a) individuals experience negative events more strongly than positive events, (b) it is easier for individuals to recall negative information from memory, (c) negative information is more thoroughly processed, and (d) decision makers often believe that negative information is more diagnostic of underlying individual differences than positive information (e.g., because positive information/interactions can be attributed to following social norms; Baumeister et al., 2001; Kanar, Collins, & Bell, 2010).

There is also some support in the staffing literature for the importance of negative information. For example, reviews of the interviewing literature suggested that negative information may outweigh positive information (e.g., Schmitt, 1976). Some studies suggested that negative information is weighed too heavily (e.g., Springbett, 1958), whereas others suggested that positive information is not weighed heavily enough (e.g., Hollman, 1972). Similarly, studies in the recruiting literature have found that negative information reduces perceptions of organizational image more than positive information enhances such perceptions (e.g., Kanar et al., 2010). As a result, we suggest,

Proposition 2a: Negative information will be weighted heavily in SM assessments.

Proposition 2b: Negative information will be weighted more heavily than positive information in SM assessments.

Violating Key Beliefs/Expectations. A second theoretical perspective focuses on how information could be interpreted negatively relative to beliefs and expectations of SM assessors. Image theory posits that several different sets of images influence decision making (Potter & Beach, 1994). Perhaps the key image is the value image, which represents a set of

beliefs about the “rightness” or “wrongness” of particular behaviors and plans (Mitchell & Beach, 1990). This image might include strongly held beliefs about an applicant or employee’s behavior that could include excessive alcohol use, use of drugs, or other behaviors (e.g., blogs criticizing a previous boss).

Decisions, particularly those early in a process, naturally lead toward elimination of alternatives from consideration (Beach & Strom, 1989). For example, applicants who post a blog critical of a previous supervisor may “lose points” because they violate the belief of loyalty to organizations. Once an alternative loses enough points, it is eliminated from further decision making (i.e., it is screened out). That is, such alternatives (e.g., job applicants are “alternatives” in the current context) are not merely assigned a lower score to be weighted along with positive information. Rather, the applicant is eliminated from further consideration. This could be particularly true in hiring given that the negative consequences of a bad hire are considered more severe than the positive consequences of a good hire (Jagacinski, 1991, 1995). Thus, it is likely that “screening out” processes are invoked when SM assessments are used. In contrast, decisions later in the selection process might be qualitatively different because they involve (a) more cognitively saturated and complex trade-offs and (b) choices between remaining alternatives are based on their strengths and weaknesses (Mitchell & Beach, 1990).

Researchers have noted that one of the most frequent roles of SM assessments is to screen applicants (Bohnert & Ross, 2010; Kluemper et al., 2012). Also recall the survey findings that suggest that many applicants have been rejected because of their SM information (e.g., Preston, 2011). Based on all of these factors, we propose,

Proposition 2c: SM information that decision makers interpret as overly negative will lead them to eliminate applicants from further consideration, regardless of other applicant attributes.

Image theory may also shed light on a number of other important questions in SM assessments. For example, researchers might ask the following: What are the “violations” of the value image based on information from SM websites? How serious and/or valid are various violations, such as an emphasis on drinking/parties or unhappiness with previous employers? One might also investigate the constructs that disqualifying information might reflect (more on constructs below). Image theory also posits that these violations may be either cognitive or visceral (i.e., gut feelings). That is, violations may involve explicit violation of values, or they may invoke feelings of unease, which are not entirely cognitive (but still dictate action). Finally, when do decision makers “change gears” and carefully examine both the strengths and weaknesses of applicants based on their SM information? Is it when determining the “finalists” to interview or test?

Finally, do decision makers have expectations about participation on popular SM websites? What happens if an applicant does not have a presence on such a website? Does this violate the expectations of decision makers? Theory and research on incomplete information have tended to assume that information is available on at least some characteristics of a product or person, but there is *virtually no research* concerning the consequences of having no information at all. Popular press articles suggest that job applicants may “lose points” if they do not have a SM presence (e.g., Hill, 2012). Research investigating potential interactions between applicant age and the lack of a SM website might prove interesting as younger applicants might be expected to maintain a website, whereas there might not be this same

expectation for older applicants. Related, how do organizations and decision makers react to privacy settings on SM websites such as Facebook? Are these individuals judged to be more technically savvy and possess better judgment, or is this practice met with greater suspicion because it gives the impression that applicants have something to hide?

Research Question 1: Are job applicants who guard their SM information viewed with suspicion or as possessing technical savvy and/or good judgment?

Process Issue 3: Information Effects of SM Assessments

In addition to incomplete information effects, theory and research on (a) the availability and influence of preinterview information and (b) the volume of available information may be relevant for understanding SM assessments.

Availability and Influence of Preinterview Information. When SM assessments occur early in the selection process, they may influence decision makers in ways similar to information from application blanks and resumes. For example, research suggests that preinterview information can influence interview evaluations (e.g., by creating a self-fulfilling prophecy; Dipboye, 1982, 1989). At the behavioral level, interviewers may ask fewer and/or less critical questions of applicants about whom interviewers' initial impression is positive. At a psychological level, interviewers may have higher expectations for applicants with more initial information, and this may bias processing of interview information, such as overweighting information that confirms initial expectations (Dipboye, 1989; Phillips & Dipboye, 1989).

In terms of SM assessments, positive information, such as high class rank or being an officer in an organization, may influence future treatment of such candidates. Furthermore, blogs or other posts may influence the development or use of (unstandardized) questions or probes within interviews. Thus, we suggest that SM information could have implications for future steps in the screening process.

Proposition 3: If used in applicant screening, SM information will influence subsequent stages in the selection process through mechanisms such as self-fulfilling prophecies.

Volume of Information and the Decreased Accuracy of Judgments. The volume of information available to SM assessors may also influence their judgments. It is well known that statistical combination of data is almost always superior to clinical combination of data (Bartlett & Green, 1966; Meehl, 1954). Dawes, Faust, and Meehl's (1989) summary of the literature noted that in virtually all studies, statistical/mathematical approaches equaled or surpassed clinical approaches in terms of observed relationships with other variables.

The volume of information available to decision makers has also been studied in counseling psychology. Some studies have found that more information does not increase the accuracy of prediction, although it may falsely increase the confidence of such decisions (Kelly & Fiske, 1951). In a direct test of this notion, Bartlett and Green (1966) gave experienced counseling psychologists four test scores about students (e.g., verbal ability) and

asked them to predict undergraduate grade point average (GPA). The researchers then gave the psychologists an additional 22 predictors (e.g., age, gender, marital status, major, hours worked). The accuracy of predictions of academic success *decreased* when the psychologists were given additional information. Bartlett and Green (1966: 270) summarized the trend in their data by asking, "Are you getting more now but predicting it less?" This study may be particularly relevant because non-job-related information such as gender, ethnicity, age, and information about family could be easily available on SM websites and knowingly or unknowingly incorporated into SM assessments. There also could be a curvilinear relationship between amount of SM information and the validity of inferences based on that information. It is likely that a complete lack of data makes predictions difficult, that some data likely help accuracy, and that excessive amounts of information inundate human information processing systems.

Finally, the purpose of the SM website could moderate the volume of information effect as well as the nature of its content. Research in the information systems literature suggests that the purpose of the website is associated with different reactions and behaviors of the users (Gerow, Thatcher, Ayyagari, & Roth, in press; van der Heijden, 2004). Within SM contexts, websites developed primarily for social purposes (e.g., Facebook) will likely provide larger volumes of job-irrelevant information than websites developed primarily for professional interactions (e.g., LinkedIn; Kluemper, McLarty, & Rosen, 2013).

Proposition 4a: The validity of SM assessments will decrease when moving from moderate to larger amounts of information obtained from socially purposed websites (e.g., Facebook).

Proposition 4b: The validity of SM assessments will decrease less (or not at all) when moving from moderate to larger amounts of information obtained from professionally purposed websites (e.g., LinkedIn).

II. Social Media Assessments, Underlying Constructs, and Validity

The study of organizational selection procedures (interviews, personality, work samples, etc.) is not new. Within the selection literature, many selection instruments are considered to be "methods" for assessing a variety of job-relevant constructs (Arthur & Villado, 2008; Landy, 1986). For example, work samples and interviews can be constructed to assess personality constructs, communication skills, cognitive ability, and so on. SM assessments also are a method, and relatively little is known concerning the constructs that could be captured from such assessments (Brown & Vaughn, 2011; Davison et al., 2011; Davison, Maraist, Hamilton, & Bing, 2012; Miguel, 2013). We extend the previous reviews of SM, which note the general importance of constructs, by outlining two empirical approaches that could be used to understand the constructs involved in SM assessment. Then we consider the potentially strong influence of structure (or lack thereof) on the validity of SM assessments.

Targeted Constructs Approach

The "targeted constructs" approach involves a given method (e.g., a test, interview rating, or SM assessment) and an examination of how this method "maps onto" key job-related constructs (e.g., job knowledge, social skills; see Christian, Edwards, & Bradley, 2010).

To implement such an approach, SM researchers might use a taxonomy of constructs to help categorize the content of SM assessments, such as Huffcutt, Conway, Roth, and Stone's (2001) taxonomy for constructs in interviews (e.g., see their Table 1 for definitions and applied examples). The first construct in Huffcutt et al.'s taxonomy is cognitive ability, a construct that arguably has the strongest meta-analytic track record of predicting job performance (e.g., Schmidt, Oh, & Le, 2006). In a rare published study on SM assessments, Kluemper and Rosen (2009) asked trained assessors to estimate an individual's cognitive ability based on SM information. The exact levels of the accuracy of the judgments of cognitive ability were not reported, but judges could generally tell the difference between the highest scoring "applicant" on the Wonderlic Personnel Test and the lowest scoring applicant.

Huffcutt et al.'s second category is job-related knowledge and skills, which reflect accumulated knowledge, skills, and abilities based on education, training, and experience. Knowledge and skills are an important part of theoretical models of job performance (Campbell, McCloy, Oppler, & Sager, 1993; Hunter, 1986). While a variety of SM websites allow posting degrees and professional certifications, we know of no studies that have assessed this category of constructs in SM assessment.

Third, SM assessments might measure personality tendencies, such as the five factor model dimensions (Davison et al., 2012). As discussed, Kluemper and Rosen (2009) found some evidence of convergence between self-reported personality and student ratings of personality based on Facebook. More studies about what cues organizational decision makers use when looking at SM websites to make such judgments (or the validity of such cues) could be useful.

Fourth, SMs might be used to measure applied social skills, which reflect the ability to function effectively in social situations (Huffcutt et al., 2001). This category includes a number of relatively distinct subcategories including communication skills, interpersonal skills, leadership skills, and persuading and negotiation skills. While it is clear that individuals can post membership in different groups (e.g., social organizations, charitable organizations, or even attendance at social events), it is unclear if such information relates meaningfully to particular social skills or subsequent job behavior. There appears to be no research targeting these constructs in SM assessments. One related (but nonsocial media) study did find that a structured reference check designed primarily to assess social skills (which included questions about past behaviors) was able to predict overall job performance (Taylor, Pajo, Cheung, & Stringfield, 2004).

The remaining categories in Huffcutt et al.'s (2001) taxonomy are interests, organizational fit, and physical attributes. Interestingly, our discussions with applicants and managers often suggest that "fit" is a motivating reason to look at SM websites (see also Davison et al., 2012). Thus, it is possible that forms of person-organization fit might be assessed using information from SM websites to predict variables such as organizational commitment or withdrawal (Kristof-Brown, Zimmerman, & Johnson, 2005). Another set of researchers added writing ability to Huffcutt et al.'s taxonomy (Roth, Bobko, McFarland, & Buster, 2008). SM assessments might target writing skills (though researchers might be evaluating informal writing style in a nonwork, social venue rather than more formal work-related writing style; Davison et al., 2012). For example, trained raters might be able to assess writing ability from professionally oriented websites (e.g., LinkedIn). However, we are unaware of any published research that has examined whether interests, organizational fit, physical attributes, or writing ability can be assessed from SM websites or whether assessments of such

constructs are related to criteria such as job performance. Of course, SM assessments of any construct may be limited by the reliability and validity of the judgments involved, as well as by the motivation of applicants to post such information. Overall, much research is needed to examine these issues empirically.

Marker Test Approach

A second approach to examining the role of constructs in personnel assessments is exemplified by McDaniel and colleagues (e.g., McDaniel, Hartman, Whetzel, & Grubb, 2007; Whetzel, McDaniel, & Nguyen, 2008). Rather than examining the content of judges' ratings or applicant behaviors/responses, "marker tests" are used to examine the saturation/correlation of assessments with scores on particular marker tests of constructs (e.g., personality dimensions, cognitive ability). An advantage of this approach is that established measures of certain constructs can provide a basis to evaluate whether SM assessments tap into those constructs. On the other hand, there are not always accepted measures of certain classes of constructs (e.g., social skills), and it is not always feasible to administer marker tests (e.g., interest inventories), particularly in job applicant settings.

The Role of Structure in Social Media Assessments

The role of structure or standardization has long been considered important in measurement. Organizations have been urged to structure their staffing procedures to help increase validity and procedural fairness (e.g., Campion, Palmer, & Campion, 1997, 1998). However, structuring SM assessment may be difficult (Brown & Vaughn, 2011), and it appears that many organizations are using relatively unstructured approaches (Miguel, 2013; Winter, 2013).

Much of the work on structure in personnel selection is in the interviewing literature. Employment interviews have much in common with SM assessments because both methods involve (a) examining a large volume of information that is often qualitative in form and (b) making judgments about applicants on a variety of dimensions. Structure (in administration or scoring) has been shown to have positive effects on the reliability and criterion-related validity of interviews (e.g., Huffcutt & Arthur, 1994; McDaniel, Whetzel, Schmidt, & Maurer, 1994) and is associated with smaller levels of standardized ethnic group differences (e.g., Huffcutt & Roth, 1998).

Structure also appears to influence the constructs measured by interviews. For example, structured interviews tend to measure interpersonal skills rather than personality variables (Huffcutt et al., 2001). However, we also note that many managers resist using structured interviews because they believe they (the managers) are pretty good judges of character (e.g., van der Zee, Bakker, & Bakker, 2002). This resistance to structure might also apply to SM assessments. Furthermore, it appears that most organizations do not have Internet/website search policies, and more than 80% of organizations do not anticipate developing such policies (Society for Human Resource Management, 2008). Thus, structure in SM assessments may not be prevalent at this time.

As noted above, basing interview questions on job analysis information and asking the same questions of all applicants increases predictive validity (Campion et al., 1997). However, we believe it will be difficult to use structured SM assessments to assess

job-related KSAs for all applicants because (a) the purpose of SM sites is often to facilitate social interaction, (b) the same types of information may not be posted on the websites of all applicants, and (c) as with interviews, it may be difficult to know if the first candidate is evaluated against the same cues as the last candidate in a selection process.

It has also been theorized that interview structure is useful because it helps control “ancillary” information (Campion et al., 1997). This is particularly relevant to SM assessments, because much ancillary information is likely available to recruiters on SM websites (e.g., gender, ethnicity, disability status). The mechanical (versus clinical) combination of data might also be important in this area. Mechanical combination of data might be associated with increased criterion-related validity by (a) focusing on relatively well defined dimensions of behavior and (b) combining these data mathematically (which could increase the meaningful variance in the composites). However, such mechanical combinations may be quite difficult to invoke in operation, because they require collecting data in a systematic manner that is not consistent with the individualized, differential use of SM websites.

Criterion Variables. We are not generally optimistic about the validity of current methods for conducting SM assessments because of the previously stated process concerns and a lack of empirical validity studies. Currently, there are almost no published studies that link SM assessments to facets of job performance, such as task performance and contextual performance/citizenship behaviors (e.g., LePine, Erez, & Johnson, 2002; Motowidlo & Van Scotter, 1994). Nor are there any published studies that show SM assessments can identify propensity to engage in withdrawal behaviors (including lateness, absenteeism, and turnover) or other important outcomes such as the withholding of extra effort on the job (Lee & Mitchell, 1994; Swider, Boswell, & Zimmerman, 2011; Swider & Zimmerman, 2010; Takeuchi, Marinova, Lepach, & Liu, 2005).

Finally, we are not aware of any studies in which researchers predicted counterproductive work behaviors such as theft or sabotage (e.g., Berry, Ones, & Sackett, 2007) from SM assessments. For example, some researchers/practitioners might believe that information obtained from SM websites is less filtered than information from more traditional types of selection tests. Thus, they may be more likely to find information to predict counterproductive work behaviors. This is a potentially intriguing idea, but one that has no support from publications at the present time. All told, there is a great void of information on the criterion-related validity of SM assessments and many opportunities to conduct studies to predict job performance and withdrawal criteria. Finally, researchers might consider if SM information (particularly from professionally purposed websites) is better for predicting typical or maximum performance (e.g., Sackett, 2007; Sackett, Zedeck, & Fogli, 1988).

We return to the possible moderating role SM website purpose may play. As noted above, we are not optimistic about the use of socially purposed websites for predicting criteria such as job performance. Yet it is possible that professionally purposed websites could hold more promise given that such websites can (a) limit potentially extraneous information and (b) focus on work-related experiences. Recently, in a proposal for a convention presentation, Sinar (2013) reported that the number of employment gaps on LinkedIn accounts, number of positions held, within-company promotions, and size of one’s network predicted some aspects of job performance. Thus, websites like LinkedIn might provide information similar

to the type of information that biodata inventories and application blanks capture. However, Sinar and Winter (2012; as well as Sinar, 2013) cautioned that such existing SM validities are generally much lower than those for many selection tests.

Proposition 5a: The criterion-related validity of SM assessments for predicting job performance or withdrawal will be higher for structured approaches relative to unstructured approaches.

Proposition 5b: The criterion-related validity of SM assessments for predicting job performance or withdrawal will be higher when data are combined mathematically and/or when data are obtained from professionally purposed websites.

We reiterate there are no published SM validity studies available on *nearly any* of the above outcome variables, and there is a large volume of work that should be conducted to understand this burgeoning use of SM in selection decisions in organizations.

III. Subgroup Differences and Potential Adverse Impact

Adverse impact against certain groups has long interested organizational researchers (e.g., Aguinis & Smith, 2007; Arvey & Faley, 1988). Much of this literature is summarized in articles addressing the adverse impact or standardized ethnic group differences on scores from selection tests (e.g., Bobko & Roth, 2013; Hough, Oswald, & Ployhart, 2001; Reilly & Warech, 1993) or performance criteria (e.g., McKay & McDaniel, 2006). Unfortunately, the coverage of adverse impact is scant in the SM literature. For example, Davison et al.'s (2011) review devoted only one line to this topic. Brown and Vaughn's (2011) review noted that a great deal of demographic information is available to SM assessors, but they did not bring much theory to bear on this issue.

At this time, there appear to be *no* published estimates of standardized ethnic group differences or adverse impact with respect to these assessments.² This is unfortunate, as there are several reasons why SM assessments might lead to adverse impact against certain groups. We outline several key issues and theories to guide research in this area.

The Digital Divides

There has been a persistent concern over access to computers and the Internet, leading to what some authors have characterized as the "digital divide" (Chou, Hunt, Beckjord, Moser, & Hessee, 2009). For example, research in social psychology, information systems, and health promotion indicates there may be differential access to computers across ethnicities. Data from a nationally representative sample from 2008 indicated Internet access for 76% of Whites, 59% of Blacks, and 50% of Hispanics (Kontos, Emmons, Puleo, & Viswanath, 2010). Other data on Internet use suggest similar patterns. For example, fairly recent data estimate 84% of White adults used the Internet compared to 73% of Black adults and 74% of Hispanic adults (Pew Research Center, 2013; see additional data in Livingston, 2011).

Internet access is also quite different for various age groups. Individuals in the age range of 34 to 39 have approximately half the odds of Internet access compared to those in the 18 to 34 range, even after controlling for income, education, and employment (Kontos et al., 2010). Comparisons are more extreme for older individuals (Kontos et al., 2010). Interestingly,

few gender differences were found in a nationally representative U.S. sample (Pew Research Center, 2013).

The use of SM (over and above general Internet availability) has been characterized as the “second digital divide” (Kontos et al., 2010). However, controlling for differences in access to the Internet, there were few ethnic group differences in use of SM as reported in a nationally representative survey from 2007 (Chou et al., 2009). Instead, the second digital divide (i.e., the SM divide) tends to occur across age groups. The percentages of individuals in various age brackets using SM were 18 to 24 = 76%, 25 to 34 = 57%, 45 to 54 = 22%, and 55 to 64 = 13% (Chou et al., 2009), and age was the strongest predictor of SM use (see also Zickuhr & Madden, 2012).

An additional concern is that less frequent use of SM sites by older individuals could interact with age-related stereotypes (i.e., older workers are perceived to be less economically beneficial to organizations; Finkelstein & Burke, 1998) to doubly disadvantage older job applicants. As a result, SM assessments might assess potentially job irrelevant attributes such as computer literacy, concern for privacy, sociability/extraversion, or simply age.

The data on the digital divide and the second digital divide suggest that using SM to gather employment-related data could have unintended consequences for certain subgroups. The trends of less computer/Internet access for Blacks and Hispanics, and the stronger trend for lack of use of SM by older individuals, raise the possibility of mean score differences between various groups simply on the basis of ability (or interest) to post SM information.

Of course, much depends on how organizations use such information. For example, a “top-down” SM assessment might identify the best three candidates for an interview. Similarly, an organization might use SM assessments and a cut score, such that the top half of the applicant pool is invited for testing. In such instances, organizations might disqualify individuals with no SM websites, which, in turn, may produce adverse impact with respect to age or ethnicity.

Proposition 6: Use of SM assessments will result in standardized group differences and adverse impact against individuals based on age and ethnicity such that older workers, Hispanics, and possibly Blacks will be disadvantaged.

It is also possible that some organizations will use SM assessments in a different manner. For instance, they might be used only to disqualify individuals based on potentially problematic information (e.g., violent postings). In this case, organizations might focus primarily on excluding individuals who exhibit certain behaviors, and individuals with no SM information would pass on to the next step in the selection process. In this situation, SM assessments might not be associated with group differences or adverse impact, although concerns remain about standardization within such an approach.

Other Social Media Processes/Individual Differences That Could Lead to Adverse Impact

Non-Job-Related (Personal) Versus Job-Related (Individuating) Information. As noted earlier, the purpose of SM websites is often social interaction (e.g., Facebook), though there

are exceptions (e.g., LinkedIn). As a result, there is likely a wide variety of personal information available to organizations such as gender, race, age, religion, and disability status (Brown & Vaughn, 2011; Kluemper & Rosen, 2009). Furthermore, SM websites may provide information about political party membership, social causes an individual is associated with, involvement in union activity, marital status, or domestic responsibilities. Such information may be difficult to ignore as one sifts through photos, stories, blogs, and so on that are posted on SM sites of job applicants or the sites of friends of applicants. One concern is that stereotypes might influence judgments made from SM information (e.g., Heilman & Okimoto, 2008; Madera, Hebl, & Martin, 2009). It also should be noted that most organizations collecting SM information have actively *chosen* to search archival data likely to contain such information. In short, it appears that almost every category of biographically related information can be found on SM websites, although the influence of this information on assessments is ultimately an empirical question that deserves attention.

The attraction-similarity paradigm might be useful to understand SM assessments (Byrne, 1971; see also Riordan, Schaffer, & Stewart, 2005). In this paradigm, similarity is often thought to lead to greater liking and, in turn, higher evaluations of others (see Goldberg, 2005, for a review). Researchers often focus on categorization of race (and gender) because of the “strong tendency of employees to categorize themselves and others” and the “consequent strong influence of these categories on social identities” (Chattopadhyay, Tluchowska, & George, 2004: 181). Although structuring selection devices can minimize or eliminate similarity effects (e.g., McCarthy, Van Iddekinge, & Campion, 2010; Sacco, Scheu, Ryan, & Schmitt, 2003), we again note that SM assessments are not readily amenable to standardization and structure.

Relational demography theory suggests that the cumulative similarities/differences across a variety of demographic factors (e.g., gender, ethnicity) influence the perceived overall similarity between a rater and a ratee (Tsui, Egan, & O'Reilly, 1992; Tsui & Gutek, 1984; Tsui & O'Reilly, 1989). This theory has primarily been tested within the context of performance appraisal, and it is possible that SM information might influence assessments of individuals. For example, non-work-related variables such as political affiliation, views on social issues (e.g., statements about drug legalization), or other behaviors (e.g., posts about binge drinking) may have cumulative negative influences on assessments. In short, various types of SM information could affect perceptions of similarity and, in turn, influence processes that involve subjective evaluations.

The strength of similarity effects may also be moderated by the purpose of the SM website. Specifically, many of the above dynamics might be more likely to influence impressions from socially purposed websites (e.g., Twitter) than impressions from professionally purposed websites. Many socially purposed SM websites make it difficult to find individuating information (more on this immediately below). In contrast, professionally purposed websites are, by nature, often focused on issues such as job duties, promotions, or lags in employment.

The amount of individuating information is also an important issue. Individuating information is defined as the identification of job-related KSAs or other individual differences that help predict subsequent outcomes such as job performance or withdrawal (McCarthy et al., 2010). A meta-analysis of experimental research found that individuating information explained approximately 8 times more variance in hiring recommendations than did gender

(Olian, Schwab, & Haberfield, 1988; see also Davison & Burke, 2000, and Locksley, Borgida, Brekke, & Hepburn, 1980). This is important as individuating information has been theorized to help “fight” stereotypes (e.g., Landy, 2010) and can reduce ethnic group differences and similarity effects (McCarthy et al., 2010; Sacco et al., 2003).

Proposition 7a: Availability of demographic information on SM websites might lead to ethnic group differences in selection decisions over and above the digital divide.

Proposition 7b: Ethnic group differences might be greater when SM information is used from socially purposed websites than when used from professionally purposed websites.

Physical Attractiveness. Given that picture and video files appear on some SM sites, the social and applied psychology literature on physical attractiveness is also relevant. The attractiveness literature is typically couched within implicit personality theory (and the attractiveness stereotype), which suggests that individuals have a cognitive structure that relates attractiveness to a variety of positive outcomes (Dion, Berscheid, & Walster, 1972; Feingold, 1992). In a meta-analysis of employment-related decisions in experimental settings, Hosoda, Stone-Romero, and Coats (2003) demonstrated that attractive individuals were rated approximately a third of a standard deviation higher than nonattractive individuals. This pattern of results was stable across student and recruiter raters, as well as when job relevant information was (and was not) present.

There are a few other organizational studies in this area. One study on hiring recommendations (Tews, Stafford, & Zhu, 2009) included information on general mental ability, the five-factor personality variables, and facial photographs. The authors found that attractiveness influenced hiring decisions over and above ability and conscientiousness, particularly for high customer contact jobs (see also Freng & Webber, 2009). Thus, given the frequency of pictorial information on SM websites, assessments based on SM information might be susceptible to the attractiveness stereotype.

Additional Variables and Constructs. The importance of construct saturation in understanding SM assessments was discussed above. We highlight three constructs or variables that could produce subgroup differences and potential adverse impact: cognitive ability, academic achievement/GPA, and vocational/work interests. Regarding cognitive ability, research has found evidence of substantial ethnic group differences on this construct (e.g., Roth, Bevier, Bobko, Switzer, & Tyler, 2001; Sackett & Shen, 2010). To the extent that overall cognitive ability is inferred from SM assessments, then ethnic group differences are possible.

More specific cognitive abilities, such as verbal ability, are also associated with ethnic group differences (Hough et al., 2001). Verbal abilities might manifest themselves on SM websites via postings on walls, blogs, and so forth. Interestingly, females score, on average, higher than males on verbal ability (d of about -0.20 ; e.g., Ployhart & Holtz, 2008; see also Hough et al., 2001), so adverse impact against females is less likely.

Regarding academic achievement, the research is limited. Although there are studies showing that, on average, grades differ across ethnic groups (e.g., Ramist, Lewis, & McCawley-Jenkins, 1994), we are aware of only one such study in the organizational

literature (Roth & Bobko, 2000). That study reported a Black–White difference on overall GPA for college students of $d = 0.78$. Thus, to the extent that grade-related information is noted on SM websites (e.g., postings or celebrations that a person made the dean’s list or an honor society), such information could be associated with ethnic group differences or adverse impact.

Regarding interests, a meta-analysis by Su, Rounds, and Armstrong (2009) suggested that males generally prefer working with things and that women prefer working with people (mean d on the things vs. people dimension of vocational preferences was reported to be 0.93). Su et al. also reported that males showed stronger realistic ($d = 0.84$) and investigative ($d = 0.26$) interests (see also Kieffer, Schinka, & Curtiss, 2004; Lippa, 2001), whereas females showed stronger artistic ($d = 0.35$), social ($d = 0.68$), and conventional ($d = 0.33$) interests. Gender differences favoring men were also found for more specific measures of engineering ($d = 1.11$), science ($d = 0.36$), and mathematics ($d = 0.34$) interests (see also Betz & Wolfe, 2005). We note that these estimates are for the general population rather than for job applicants. Interest differences among job applicants could be smaller (e.g., due to self-selection into particular occupations and jobs). However, to the extent that interest information is available on SM websites (e.g., membership in clubs, etc.), gender-based adverse impact might be expected.

We also briefly note research on background checks (with thanks to a reviewer for this recommendation). Interestingly, there have been very few studies on the adverse impact of background checks. We did find one study of credit reports (Bernerth, Taylor, Walker, & Whitman, 2012). These researchers reported a Black–White $d = 1.78$ for a sample of individuals across a heterogeneous set of jobs. Additional analyses of the database for all minorities as a single group (compared to Whites) suggested significant differences for the minority group variable (Bernerth, 2012). In contrast, differences for gender were smaller ($d = -0.06$) and not statistically significant in a regression analysis. Thus, SM assessments of constructs related to financial status or financial responsibility (as assessed by credit scores) could also have adverse impact against Blacks and possibly Hispanics.

Proposition 8a: SM assessments of cognitive ability and academic performance will be associated with standardized ethnic group differences and potential adverse impact.

Proposition 8b: SM assessments of specific work interests (e.g., realistic interests) will be associated with standardized gender group differences and potential adverse impact.

Proposition 8c: SM assessments of financial-related variables will be associated with standardized ethnic group differences and potential adverse impact.

IV. Applicant Reactions to Social Media Assessment

Reactions to HR practices have garnered increased attention in recent years (Hausknecht, et al., 2004). Applicant reactions have been defined as “attitudes, affect, or cognitions an individual has about the hiring process” (Ryan & Ployhart, 2000: 566). Such reactions can influence applicants’ test-taking motivation, evaluations of the organization, and willingness to accept job offers (Hausknecht et al., 2004). Furthermore, SM websites allow applicants to communicate how they were treated by various organizations (Winter, 2013). Thus, the availability of SM actually may amplify the importance of applicant reactions in general and reactions to SM assessments in particular.

What We Know and Need to Know

At the risk of sounding repetitious, we are unaware of any published research about applicant reactions to SM assessments, though convention presentations are beginning to appear (see below). This is another area where research could be fruitful.

The applicant reactions model developed by Hausknecht et al. (2004) might provide theoretical guidance in efforts to understand SM acceptance (see also Bauer, Truxillo, Sanchez, Craig, Ferrara, & Campion, 2001; Gilliland, 1993; Ryan & Ployhart, 2000). One key component of Hausknecht et al.'s model is a category of variables thought to be antecedents of applicant reactions. These antecedents include perceived justice rules (including job-relatedness, two-way communication, and propriety of questions), interpersonal justice rules, informational process rules, length of process, outcome, invasion of privacy, perceived test ease, and transparency of the process.

Several antecedents (e.g., privacy) suggest that reactions to using SM data for selection might be negative. One survey noted that 48% of individuals are worried about companies checking their actions on the Internet (Annenberg, 2011; see also Clark & Roberts, 2010, for an ethics-based view of this issue). In another survey, a majority of working individuals indicated that what was on an individual's website was none of the company's business (Davison et al., 2011). Information about financial- and family-related information is thought to be particularly sensitive for applicants (Black et al., 2012).

The antecedents of transparency and two-way communication might also lead to negative reactions to SM assessments. At present, there is little understanding about what or how organizations are doing during SM assessments (and they may consider their methods as proprietary knowledge). In short, whether and how organizations use SM information is not transparent to applicants. Based on the communication literature, Potosky (2008) suggested that the lack of two-way communication (and the feedback inherent within it) may result in negative perceptions of a testing practice (see also Barry & Fulmer, 2004). Indeed, SM assessments probably do not offer even one-way communication, because applicants are not responding to presumably job-related inquiries. Furthermore, because SM assessments appear to be "black boxes" for applicants given the current lack of knowledge and transparency, it is unclear if applicants will perceive such information to be job-related (yet another antecedent of reactions).

To further motivate research, we offer an alternative possibility that some applicants might react positively (or at least neutrally) to SM assessments because they feel comfortable relying on high-tech processes. Surveys suggest that younger individuals (e.g., those 18-25) regard technology as a given and tend to see fewer problems with organizations using SM for personnel decisions (Davison et al., 2011; Turckle, 2011). Results from a simulated hiring study (i.e., participants read descriptions of various hiring systems) with undergraduate students found no overall reaction effects of adding a SM assessment to other selection devices such as a personality inventory (Sanchez, Roberts, Freeman, & Clayton, 2012). We also note that the simulated SM assessment did not involve active behaviors on the applicant's part (e.g., "friending" HR or providing a password). The researchers reported that the students expected such checks.

Thus, based on Hausknecht et al.'s (2004) model, it would be useful to compare applicant reactions to SM assessments to reactions to other selection procedures, such as interviews and work samples. Organizations may also want to link applicant reactions to actual behaviors, such as withdrawal from the selection process or recommendations to friends to apply.

A key issue in SM assessment may also involve telling applicants the “what” and “why” of the procedures because explanations can strongly affect reactions to HR processes/programs (e.g., Nishii, Lepak, & Schneider, 2008). On the other hand, any increased transparency of the process may lead applicants to distort, or selectively choose, the type of information posted on SM websites.

One particularly salient issue to applicants involves accessing private information, such as information protected by privacy screens. Requests for such information are predicted to become increasingly common in the United States and Britain (Barnett, 2012). Related to this trend, Seibert et al. (2012) simulated application to an organization for a sample of students and reported that requests to access personal information (i.e., the students had to “friend” a manager/HR representative) negatively influenced applicant reactions to an organization. Thus, SM assessments that are perceived as invasive may increase privacy concerns during personnel selection, as well as decrease organizational attraction. We suggest that password requests will result in particularly negative reactions due to even more invasiveness. Research with actual job applicants is needed for both propositions below.

Proposition 9a: Reactions to SM assessments will be mixed. Concerns about privacy, transparency, and two-way communication will result in negative evaluations of SM assessments, although use of technologically gathered information will be of less concern to younger applicants.

Proposition 9b: Reactions to SM assessments that require “friending” or passwords will result in negative evaluations of SM assessments, and such assessments that require passwords will be viewed more negatively than “friending.”

Discussion

New technology has the capacity to change how we work (I. O. Williamson, King, Lepak, & Sarma, 2010). One of the more salient new technologies is the use of SM, and an emerging application of this technology is its use in personnel decisions. As noted, recent studies suggest that approximately 70% of organizations use SM at some point during the selection process (Preston, 2011). Yet there has been little theoretical attention to this phenomenon and virtually no empirical attention to the validity and operational use of SM assessments. Thus, organizational practice has greatly outpaced the scientific study of SM assessments in an area that has important consequences for individuals (e.g., being selected for work), organizations (e.g., whether this information helps predict job performance or withdrawal), and society (e.g., adverse impact, diversity).

We suggest that SM assessments are a different class of variable or predictor of organizational outcomes than currently exists and, as such, they deserve substantial research attention. They are unique in that SM assessments involve organizations conducting active searches of archival information on the web. Furthermore, SM assessments do not pose a common set of cues/questions to job applicants like other methods such as situational judgment tests or biodata inventories. Nor do they provide two-way communication between applicants and organizations like interviews do. Finally, SM assessments do not seek to mirror the content and process of jobs as in work samples and assessment centers. Instead, organizational decision makers search information often provided for social interactions (e.g., Facebook) to help assess individuals’ fit with the organization or particular job tasks. Overall, we believe this is a somewhat *rare moment in staffing research* when a new assessment

method arrives on the scene. The advent of this approach to hiring provides an important opportunity (and need) for new research, and it also has implications for related areas such as performance appraisal and turnover.

We acknowledge that other predictors of job performance have some of the same issues as SM assessments. For example, tests of personality are also subject to faking, and interviews can be unstructured and give decision makers access to some demographic information. Yet SM assessments appear particularly prone to such problems and are uniquely situated in regard to other problems. For example, organizations are actively searching websites that contain demographic, religious, and other personal information (rather than passively observing it or collecting it for equal employment opportunity purposes). In addition, the information is often posted for a different reason on many SM websites (i.e., social reasons) and may provide access to demographic variables that would not be observed in interviews (e.g., religion, Davison et al., 2012). Finally, because applicants do not complete SM assessments while applying for a job (e.g., like they complete a test or an interview), there is little opportunity to cue applicants about what job-relevant information to provide.

We believe that the moment of having a new predictor is particularly important given the information processing theories noted above, which provide reasons for caution about the validity of SM assessments for predicting outcomes such as job performance or turnover. The difficulty of structuring the SM assessment process may provide further reasons for caution. Finally, we noted reasons SM assessments may produce subgroup differences and adverse impact related to both age and ethnicity, as well as the potential for negative applicant reactions in some situations.

Research Directions

In an effort to guide some of the research energies in staffing, we provided research propositions throughout. By way of summary, we suggest the following sets of questions be addressed. First, how are SM assessments conducted, what are the psychological/decision-making processes involved in the process, and what constructs are or could be targeted by such assessments? Questions also include what search engines are used, what websites are primarily targeted (e.g., Facebook vs. LinkedIn), and if/how decision makers attempt to quantify their evaluations of SM information. Quantitative and qualitative work might involve in-depth case studies, or content analyses of applicant web sites and organizational protocols.

Second, are SM assessments, as organizations currently use them, related to key outcome variables (e.g., job performance and withdrawal behaviors)? If not, can SM assessments be constructed in a way to provide valid inferences concerning future task performance or other valued criteria? Again, the increased use of SM assessments stands in contrast to the nearly complete lack of studies in which criteria are gathered on actual job applicants. Third, does the use of SM assessments influence outcomes differently for ethnic, gender, and age groups? Fourth, how do applicants react to SM assessments? Early stages of work are occurring (i.e., convention presentations), but clear and consistent answers have yet to be found.

Practical Implications

Our primary purpose was to discuss theories that may help understand the SM assessment process and outcomes, as well as to stimulate future research. In a sense, most of the previous

portions of the article have been descriptive and investigative. That is, we focused on what was being done, psychological processes underlying those practices, and so on. We conclude by moving toward a somewhat more prescriptive focus in which we provide some guidance based on the literature to date. Recommendations for how to proceed (or how not to proceed) may be important because of the increased use of SM assessments and because SM information can be a bit “fuzzy” or simply invalid. That is, much of the information is qualitative, and there may be a large volume of information with varying degrees of job-relatedness. In an attempt to make SM assessment a little less ambiguous, we recommend that (a) the entire process should be approached with a great deal of caution, (b) there are things organizations should consider “not doing,” and (c) research about SM assessments should begin with exploratory investigations.

Cautions. Decisions to use SM assessments should be made with considerable caution. First, *SM assessments have little or no track record of predicting any outcome variables* (e.g., job performance, training performance, withdrawal). It is thus somewhat difficult to argue that inferences based on SM information are empirically valid (for further discussion, see Kluemper et al., 2013).

Second, there are *no* published studies of standardized group differences or adverse impact on SM assessments, so it is difficult to address regulatory concerns (U.S. Equal Opportunity Employment Commission, 1978) or possible effects on organizational diversity. The digital divides, access to demographic and job-irrelevant information, and the unclear potential of SM information to assess specific constructs suggest reasons to be concerned about using SM information for decision making.

Third, it may be difficult to establish the content validity of SM assessments; in particular, it might be difficult to assess aspects of a SM website that reflect job content in a systematic manner. For example, the psychological or physical similarities/fidelity between the two domains (SM predictor and job performance) may not be strong. It would appear that socially purposed websites such as Facebook would be particularly troublesome in this regard.

Recommendations for What Not to Do. A reviewer suggested that we address the issue of what organizations should avoid if they decide to use SM assessments in some way. It may be particularly likely that organizations engage in these behaviors when the technological allure outweighs the careful consideration of good test development (what a reviewer dubbed “the wild goose chase approach”).

We suggest that organizations not engage in SM assessments unless there is some job analytic information available. The lack of job information could mean that assessors of SM information may not have a clear focus about what job-related behaviors are important and/or how to assess those behaviors using SM information (Miguel, 2013). Furthermore, lack of job analytic information can weaken the legal defensibility of selection procedures (e.g., L. G. Williamson, Campion, Malos, Roehling, & Campion, 1997; see also Clark & Roberts, 2010).

We also recommend that organizations consider avoiding the use of SM assessments that are unstructured. Unstructured selection tests/interviews may be related to assessors treating

applicants in different ways (e.g., Binning, Goldstein, Garcia, & Scattaregia, 1988). Unstructured SM assessments could also lead to reliability problems across assessors, as there is the potential for a lack of consistency in the evaluation process.

Organizations should be wary of letting untrained individuals conduct SM assessments, as such assessors are less likely to know what information they should be searching for and what information they should avoid in making judgments. For example, the large volume of extraneous information and the likely volume of sensitive information (e.g., membership in protected classes) could lead to differential information processing across applicants. As a reviewer noted, it also is possible to mix up individuals with relatively common names when conducting SM searches.

Using SM Assessments. We also have several broad sets of recommendations to organizations that want to study the use of SM assessments. Some of them are simply the converse of the “to be avoided” recommendations above. Others are unique to this category. Overall, the principles are consistent with viewing SM assessments as a selection test without quickly succumbing to the allure of obtaining vast amounts of information with relative ease and little cost.

First, we suggest organizations obtain evidence for the criterion-related validity of SM assessments *before* they use such assessments operationally. Such studies might involve using a comparison predictor (e.g., structured interview) or battery of predictors. SM assessments could be conducted “in the background” to test the feasibility of their use (e.g., given concerns over issues such as incomplete information) without using them to make selection decisions. This would avoid some range restriction issues and delay implementation until researchers better understand the consequences of using SM. Thus, we suggest there is likely a need for ground work in regard to empirical studies on SM assessments. This suggestion applies to SM assessments based on direct human judgments, such as assessments based on an assessor looking at Facebook pages, as well as to more automated content analyses done primarily via computer software programs. That is, the use of computer algorithms does not circumvent the need for validation.

Second, we suggest that SM assessments be related to job analytic information (Miguel, 2013). The information should note the nature of the KSAs or behaviors being targeted or measured. We also suggest that organizations consider what criterion (or criteria) they wish to predict and what SM information might be relevant to that criterion. This set of suggestions may help clarify results of the SM assessment process, because decision makers will better understand what to focus on and predict.

Third, we suggest organizations focus on employment purposed websites (e.g., LinkedIn; Kluemper et al., 2013; Miguel, 2013; Sinar, 2013; Sinar & Winter, 2012). Again, we are cautious in this respect as we do not generally recommend using such information in operational selection at this time. Rather, this is a good place to do research “in the background” to see if SM assessments might provide valid information. This background research might examine biodata to see if variables such as breaks in employment and promotions might be captured from SM websites (Sinar, 2013). Such data might add to variance accounted for (in various criteria) beyond personality tests or cognitive ability tests, although dealing with potentially incomplete information could still prove challenging.

Fourth, structure the process (Miguel, 2013). Campion et al. (1997) provided a thorough list of ways to structure interviews that could be adapted for SM assessment. One salient example of structuring includes using the same assessor to conduct the screening (Kluemper et al., 2013). It would also be useful to consider multiple assessors. Recall that Kluemper and Rosen (2009) needed three to six assessors to achieve moderate levels of reliability.

Fifth, train assessors. While training has been considered a part of structure (Campion et al., 1997), training could be important in SM assessment (Kluemper et al., 2013). Some training might be useful for HR screeners; however, training could be particularly important for line managers who may be less conscious of legal equal employment issues in selection.

Sixth, consider whether to share SM information with interviewers. The interviewing literature suggests that preinterview information influences the types of questions asked and increases impression confirming strategies (Binning et al., 1988).

It is worth repeating that we do not generally recommend the use of SM assessment at this time. The track record of validity is extremely limited, and there are reasons to expect adverse impact. Yet organizations interested in carefully exploring SM assessments “in the background” before using them for decisions may find the above thoughts helpful.

Conclusions

SM is a relatively new technology that has enabled organizations to use, or contemplate using, a new predictor; that is, assessments of individuals based on their SM information. As such, it is a unique and important occasion for organizational decision makers and researchers. The rapid increase in the use of SM information raises the question of whether organizations are able to mine a wealth of potentially useful information from this new technology. Or, the rush might result in “ghost towns” (of former users) with many complications. Unfortunately, there does not appear to be an agenda for research in this area. While the gold rush is likely to continue, it is up to researchers to answer key research questions and understand the process and results of SM assessments. We hope some of the ideas discussed herein help provide an operational and theoretical starting point for future research and understanding.

Notes

1. Given our interest in selection and other organizational applications of social media (SM) information, we invoked a broad definition of SM assessments that includes information obtained from SM websites and other electronic searches. This definition is also a practical matter, given the minimal extant literature. We suggest that, at some point in the future, research articles might systematically investigate the influence of information source (e.g., Facebook vs. LinkedIn vs. Google searches).

2. We note that standardized ethnic group differences are often measured using the d statistic (Hunter & Schmidt, 2004). The standardized group difference (d) is defined as the difference in mean scores between two groups (e.g., Whites and Blacks) divided by the “pooled” standard deviation. For example, a d of 0.5 means the two groups differed, on average, by one half of a standard deviation. The adverse impact ratio is defined as the selection ratio for a minority group (e.g., females) divided by the selection ratio for the highest scoring group (e.g., males; U.S. Equal Opportunity Employment Commission, 1978; see also Morris & Lobsenz, 2000), and values of d can be linked to levels of adverse impact (see Sackett & Ellingson, 1997).

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