Singapore Management University

Institutional Knowledge at Singapore Management University

Research Collection Lee Kong Chian School Of Business

Lee Kong Chian School of Business

12-2020

What's on job seekers' social media sites? A content analysis and effects of structure on recruiter judgments and predictive validity

Liwen ZHANG University of New South Wales

Chad H. VAN IDDEKINGE Florida State University

John D. ARNOLD University of Missouri

Philip L. ROTH *Clemson University*

Filip LIEVENS Singapore Management University, filiplievens@smu.edu.sg

Selective this agreet addition that a shares https://ink.library.smu.edu.sg/lkcsb_research

Part of the Human Resources Management Commons, Industrial and Organizational Psychology Commons, Organizational Behavior and Theory Commons, and the Social Media Commons

Citation

ZHANG, Liwen; VAN IDDEKINGE, Chad H.; ARNOLD, John D.; ROTH, Philip L.; Filip LIEVENS; LANIVICH, Stephen E.; and JORDAN, Samantha L.. What's on job seekers' social media sites? A content analysis and effects of structure on recruiter judgments and predictive validity. (2020). *Journal of Applied Psychology*. 105, (12), 1530-1546.

Available at: https://ink.library.smu.edu.sg/lkcsb_research/6500

This Journal Article is brought to you for free and open access by the Lee Kong Chian School of Business at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection Lee Kong Chian School Of Business by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email cherylds@smu.edu.sg.

Author

Liwen ZHANG, Chad H. VAN IDDEKINGE, John D. ARNOLD, Philip L. ROTH, Filip LIEVENS, Stephen E. LANIVICH, and Samantha L. JORDAN

Reference:

Zhang, L., Van Iddekinge, C. H., Arnold, J. D., Roth, P., Lievens, F., Lanivich, S., Jordan, S. (accepted). What's on job seekers' social media sites? A content analysis and effects of structure on recruiter judgments and predictive validity. *Journal of Applied Psychology*.

©American Psychological Association, 2020. This paper is not the copy of record and may not exactly replicate the authoritative document published in the APA journal. Please do not copy or cite without author's permission. The final article is available, upon publication, at: *DOI currently not available*

Abstract

Many organizational representatives review social media (SM) information (e.g., Facebook, Twitter) when recruiting and assessing job applicants. Despite this, very little empirical data exist concerning the SM information available to organizations or whether assessments of such information are a valid predictor of work outcomes. This multi-study investigation examines several critical issues in this emerging area. In Study 1, we conducted a content analysis of job seekers' Facebook sites (n = 266) and found that these sites often provide demographic variables that U.S. employment laws typically prohibit organizations from using when making personnel decisions (e.g., age, ethnicity, religion), as well as other personal information that is not workrelated (e.g., sexual orientation, marital status). In Study 2 (n = 140), we examined whether job seekers' SM information is related to recruiter evaluations. Results revealed that various types of SM information correlated with recruiter judgments of hireability, including demographic variables (e.g., gender, marital status), variables organizations routinely assess (e.g., education, training and skills), and variables that may be a concern to organizations (e.g., profanity, sexual behavior). In Study 3 (n = 81), we examined whether structuring SM assessments (e.g., via rater training) affects criterion-related validity. Results showed that structuring SM assessments did not appear to improve the prediction of future job performance or withdrawal intentions. Overall, the present findings suggest that organizations should be cautious about assessing SM information during the staffing process.

Keywords: cybervetting; Facebook; personnel selection; social media; staffing

What's on Job Seekers' Social Media Sites? A Content Analysis and Effects of Structure on Recruiter Judgments and Predictive Validity

Social media (SM) has become an increasingly popular means by which organizations recruit and assess job applicants. Examples of SM include Facebook, Twitter, and Instagram. Prior surveys found that 70% or more of recruiters and hiring managers search applicants' SM sites and even use this information to screen applicants, with Facebook being the site reviewed most frequently (CareerBuilder, 2017; Kluemper, Mitra, & Wang, 2016). Other research suggests that hiring officials are more likely to review applicants' SM information than they are to administer more traditional assessments such as personality tests (Henderson, 2018). Reasons for such interest include the fact that SM information already exists (i.e., it does not have to be developed), is free to view, and does not require applicants to be present. Further, SM sites are intended primarily for social rather than for selection purposes. As such, and in line with signaling theory (Bangerter, Roulin, & König, 2012; Spence, 1973), organizations may consider the information on applicants' SM sites as representing a more honest signal of applicants' characteristics than traditional assessments such as resumes and interviews.

We conducted the present research to address several key gaps in the emerging literature on SM assessments. First, although researchers have noted that SM provides information about job applicants that traditionally has not been available to organizations, little is known about the nature or prevalence of this information. Study 1 begins to shed light on this issue by systematically coding job seekers' SM sites to determine the types of information available to organizations. Second, we are not aware of any evidence regarding whether, and to what extent, SM information is related to staffing decisions. Study 2 addresses this question by examining relations between SM information and recruiter evaluations. Finally, little empirical evidence exists regarding the criterion-related validity of SM assessments (e.g., Kluemper, Rosen, & Mossholder, 2012; Van Iddekinge, Lanivich, Roth, & Junco, 2016). In Study 3, we test whether structuring SM assessments helps predict future job performance or withdrawal intentions.

STUDY 1: CONTENT ANALYSIS OF JOB SEEKER SM INFORMATION

SM represents "digital Web 2.0 applications that facilitate interactive information, usercreated content, and collaboration" (Kluemper et al., 2016, p. 154). A unique aspect of SM information is that so much of it is relatively accessible. For example, many Facebook sites are fully or partially accessible to those outside of users' social networks (Vitak, Blasiola, Patil, & Litt, 2015). In addition, 36% of recruiters have requested applicants grant them access to their Facebook information, and the vast majority of applicants comply (CareerBuilder, 2016). The availability of demographic and other personal information on job seekers' SM sites could have implications for applicants and organizations. For applicants, landing a job could depend on what recruiters learn about them online. For organizations, use of SM information that may not be relevant to the job could decrease the accuracy of selection decisions or lead to adverse impact.

Despite the potential impact SM information may have on staffing decisions, we know of only one study that examined some of the types of information available to organizations. Becton, Walker, Schwager, and Gilstrap (2017) coded Facebook sites of 146 undergraduates for (a) profanity and offensive language and (b) alcohol and drug content. Results revealed that 49% of the profiles had at least one comment or photo that contained profanity, and 58% had at least one instance involving substance use. Interestingly, the coded SM information was unrelated to self-reported counterproductive work behavior.

The present study builds upon this initial work by content analyzing job seekers' SM sites to determine the types and prevalence of information available to organizations. In contrast to Becton et al. (2017), we focus on a broader range of information that may be available on job seekers' SM sites and pose the following question:

Research Question 1: What types of information are available on job seekers' SM sites?

Method

Participants

We partnered with Qualtrics^{XM}—a U.S.-based online survey administration firm—to identify a sample of job seekers. Qualtrics^{XM} has become an increasingly popular means by which researchers can efficiently obtain data from individuals who meet relevant criteria (e.g., Allen, Peltokorpi, & Rubenstein, 2016; Eberly, Holley, Johnson, & Mitchell, 2017; Strauss, Griffin, & Parker, 2012). Study participants had to (a) be actively searching for a job and (b) have a Facebook site. In addition, we specified that the age distribution within the sample match the distribution within the U.S. workforce. We focused on Facebook because it remains one of the most popular SM sites (Alexa.com, 2018), and recruiters often review it (Henderson, 2018).¹

Qualtrics^{XM} invited 2,207 people to participate, and 410 (18%) complied. This response rate is comparable to rates reported previously (e.g., Eberly et al., 2017) and likely is conservative because we do not know how many of the 2,207 people invited to participate had a Facebook site. However, we excluded 144 of 410 participants because they failed an attention check question (i.e., "For technical reasons, please select 'quite a bit' for this question"). This resulted in a final sample of 266 job seekers. The sample was 63.0% female, and the main racial groups represented were Whites (69.4%), African-Americans (14.3%), and Hispanics/Latinos (5.7%). Ages within the sample ranged from 17 to 76 (M = 41.47, SD = 14.51). Participants were searching for a wide range of jobs, including jobs in 21 of the 23 job families in the O*NET taxonomy. The most prevalent were management (16.6%), office and administrative support (12.8%), and sales related jobs (10.2%). Finally, participants had between 0 to 60 years of work experience (M = 18.68, SD = 13.39).

Procedure

Each job seeker completed a survey about their employment status, job search, and personal background. They also provided the URL to their Facebook site, which provided us access to all their publicly available information. We saved participants' Facebook pages as screenshots to provide a static set of information to code.

We first reviewed an initial set of Facebook sites and identified four categories of information. The first was demographic variables that U.S. employment laws typically prohibit in personnel decisions, including age, gender, race/ethnicity, national origin, pregnancy status, disability status, and religious affiliation or beliefs.² The second category included other personal information that some states may prohibit and/or typically is not work-related (i.e., sexual orientation, marital status, child dependents, socioeconomic status [SES], and political affiliation or beliefs). The third category comprised information organizations routinely assess (i.e., education, work experience, work-related training, and extracurricular activities such as volunteering or athletics). The fourth category consisted of variables that may be a concern to organizations (i.e., profanity, substance use [including alcohol, tobacco, and drugs], discrimination, gambling, sexual behavior, interpersonal conflict, violence, illegal activities [e.g., theft], and negative work attitudes and behaviors). Table 1 lists the variables we coded, along with definitions, representative examples, and intercoder agreement statistics.

After pilot testing several iterations of the coding form with eight Facebook sites, four of the authors used the form to code the remaining 258 sites such that two authors independently coded each job seeker's site. We spent about 10 minutes reviewing and coding each site, and we

alternated pairs of coders among the four authors to ensure a consistent approach. We coded whether the information was (a) available (and if so, job seeker's standing on the variable), (b) available but inconclusive (e.g., pictures or other information were available but we could not clearly determine a job seeker's race/ethnicity), or (c) not available. Intercoder agreement for availability of information ranged from 79.7% for religion to 100% for age (M = 92.6%, see Table 1). Coders discussed all discrepancies until they achieved consensus.³

Results and Discussion

Research Question 1 asked what types of information are available on job seekers' SM sites. As Table 2 shows, for the equal employment variables, 16.2% of job seekers provided information about their age. Both job seeker gender and race/ethnicity were evident from 100% of SM sites. Job seeker national origin were apparent for 56.0% of the sites. Only a few of female job seekers' sites (3.0%) included pregnancy-related information. A total of 7.1% of SM sites revealed a physical disability, a mental disability, or a major illness. Finally, religious affiliation or beliefs were apparent for 41.4% of job seekers.

Regarding other personal information, sexual orientation, marital status, and child dependents was available for 58.6%, 57.9%, and 48.5% of SM sites, respectively. Further, 5.3% of SM sites included information about job seekers' SES. Political party affiliation was available for 5.3% of job seekers, including Democrat (2.6%), Republican (1.5%), Green (0.4%), Independent (0.4%), and Libertarian (0.4%). However, an additional 21.1% of sites included information about job seekers' political views (but not their specific political party affiliation). The SM sites also included information organizations routinely assess, particularly education level (56.8%) and work experience (41.0%). In contrast, only 4.9% of SM sites included information about work-related training or skills. A total of 31.2% of sites included information about extracurricular activities, particularly volunteer functions.

Finally, many job seekers' SM sites included information that may be of concern to organizations. Profanity was found on 51.1% of the sites, and a few sites (1.9%) included discriminatory content. Information regarding sexual behavior was evident or suggested in 15.0% of job seekers' sites. Some sites (11.3%) contained information to suggest gambling. In terms of substance use, 25.6% of sites showed or suggested job seekers' consuming alcohol, 8.3% included evidence of tobacco or nicotine use, and 7.1% referred to drug use. Last, some SM sites included content regarding interpersonal conflict (7.9%), violence (10.2%), illegal activities (1.9%), or negative work attitudes and behaviors (3.0%). In sum, results suggest that a lot of information—including variables that are illegal or highly questionable for use in staffing decisions—is available on job seekers' SM sites.

STUDY 2: SM INFORMATION AND RECRUITER EVALUATIONS

In Study 2, we explore the availability of this information in a second sample of job seekers and whether this information relates to recruiter evaluations. Prior research found that resume information such as education, work experience, and extracurricular activities tends to relate positively to recruiter ratings (e.g., Cole, Feild, Giles, & Harris, 2003; Thoms, McMasters, Roberts, & Dombkowski, 1999; Tsai, Chi, Huang, & Hsu, 2011). In a similar way, recruiters may give more favorable evaluations to job seekers whose SM sites contain this type of information. Conversely, traditional assessments such as resumes and interviews typically do not provide or elicit types of SM information that may reflect negatively on job seekers. Study 1 suggested that job seekers' SM sites include information that may be of concern to organizations (e.g., profanity, substance use), as well as other types of information that may influence recruiter evaluations (e.g., race/ethnicity, political beliefs). We explore these possibilities in Study 2.

Research Question 2: Is job seekers' SM information related to recruiter evaluations?

Method

Some of the data for Study 2 were obtained from a larger study for which we collected data from three sets of participants (more details can be found in Van Iddekinge et al. [2016]). First, undergraduate and graduate students (attending a large university in the southeastern U.S.) who (a) were near graduation and were looking for jobs or preparing to do so and (b) had a Facebook site provided us access to their site. A total of 1,134 students (approximately 20% of the students contacted) completed the study. They filled out a survey about their demographic characteristics, academic background, and personality. Second, recruiters who came to the university to recruit students evaluated their Facebook sites in exchange for a summary of the study findings. We obtained recruiter ratings for 416 of the original 1,134 job seekers. Third, 6-12 months later, we obtained supervisor ratings of job performance for 140 of the 416 job seekers (the other supervisors could not be reached [e.g., left the organization] or did not respond). We also obtained turnover intentions ratings from these job seekers.

For the current study, we used the Facebook sites and recruiter evaluations of the 140 job seekers for whom we had both recruiter and job performance ratings from the larger data collection described above. The new data we added for this study were from our coding of job seekers' Facebook information. Compared to the original 1,134 cases, this subsample of 140 job seekers included slightly more females (67.1% vs. 61.6%), was older (M = 25.1 vs. 23.4), and had slightly higher GPAs (3.47 vs. 3.36). The participants were from about 60 majors. They were 80% Whites, 11.4% Hispanics/Latinos, and 5.0% African-Americans.

We coded the same variables, using the same process, as we described in Study 1 (and coders were blind to the recruiter ratings). Given our interest in whether the SM information is

related to recruiter ratings, we also coded the frequency or extent of variables that are continuous in nature. For example, we coded instances of substance use as 0 = none, 1 = little use (once or twice), 2 = some use (several times), and 3 = substantial use (many times) (see Table 1 for more details). We also coded three additional variables that could be available on job seekers' SM sites. We rated written communication skills based on job seekers' posts using a scale that ranged from 1 = extremely bad to 5 = extremely good. We rated job seekers' physical attractiveness using an adapted scale from Riggio, Widaman, Tucker, and Salinas (1991) that ranged from 1 = extremely unattractive to 5 = extremely attractive. And we rated obesity using a scale adapted from Hebl and Mannix (2003) that ranged from 1 = not at all fat to 5 = very fat.⁴ Intercoder agreement across the variables was similar to the level of agreement found in Study 1 (M = 95.6% for information availability and 94.0% for the specific categories within each variable, see Table 1), though intercoder reliability for written communication skills was somewhat lower.

Thirty-nine recruiters who attended a career fair or conducted interviews at the university assessed the job seekers' Facebook sites. Recruiters were HR specialists, hiring managers, or employees in the job for which the organization was recruiting. They were 51.3% female, 89.7% White, an average of 35.47 years old (SD = 10.02), and possessed an average of 7.15 years of experience recruiting and selecting employees (SD = 5.86).

We first provided recruiters with an overview of the study. Then, we asked them to "Please imagine you are a recruiter who is evaluating recent college graduates for a variety of positions. You are conducting an initial screen of the applicants. As part of that process, you review applicants' Facebook sites and then evaluate their hireability." After participants reviewed a job seeker's Facebook site, they provided hireability ratings using a 5-item scale adapted from previous studies (Adkins, Russell, & Werbel, 1994; Cable & Judge, 1997). An example item is "I would further consider this person if they applied for a position that fit their background and interest" ($\alpha = .92$). Recruiters could refer back to the job seeker's site while making their ratings. Each recruiter assessed an average of 3.60 job seekers.

Results and Discussion

Table 3 presents the frequency of information available on job seekers' SM sites. In general, the types and amount of information (e.g., age, gender) were comparable to what we found in Study 1. Exceptions included variables such as pregnancy status (0.0%), disabilities (0.7%), and child dependents (24.3%) for which there was less variance given the relatively younger sample of new job entrants in this study compared to the more age-diverse job seekers in Study 1.

As each recruiter evaluated multiple job seekers, we used hierarchical linear modeling (HLM) to test whether there was significant between-recruiter (i.e., level 2) variance in hireability ratings, controlling for within-recruiter variability (i.e., level 1) (Hofmann, Griffin, & Gavin, 2000). Results revealed significant mean differences among recruiters (Wald z = 2.05, p = .04). The intraclass correlation coefficient (ICC,1; Bliese, 2000) of .24 indicated that 24% of the variance in the ratings was between recruiters. Thus, we used HLM to analyze the data. Recruiter was a level 2 variable and the SM variables and recruiter ratings were level 1 variables. We examined only variables that had at least five job seekers for which the coded information was available and/or in each of the main subcategories of the variable. The variables we excluded due to these criteria were: national origin, sexual orientation, disability status, pregnancy status, child dependents, SES, tobacco or nicotine use, and interpersonal conflict.

Table 4 displays descriptive statistics and correlations for the variables, and Table 5 displays results of the HLM analyses. Several equal employment law variables related

significantly to recruiter ratings. Specifically, ratings were higher for females than for males ($\hat{\gamma}$ = .41, p = .02) and for job seekers who were married, engaged, or in a relationship than for single job seekers ($\hat{\gamma} = .54, p = .01$). Further, ratings were higher for older job seekers than for younger ones ($\hat{\gamma} = .03$, p = .00). In addition, job seekers whose SM sites included information about their religious beliefs received lower ratings than those whose SM sites did not include religious information ($\hat{\gamma} = -.37, p = .02$). In contrast, none of the variables in the other personal information category related to recruiter ratings. Several variables organizations routinely assess were positively associated with recruiter evaluations, including education ($\hat{\gamma} = .36, p = .01$), work-related training or skills ($\hat{\gamma} = 1.01, p = .01$), and written communication skills ($\hat{\gamma} = .37, p$ = .01). Interestingly, none of the extracurricular activities were significant. Finally, with the exception of discrimination and gambling, all of the variables that may be of concern to organizations were significant and negatively related to recruiter ratings, including profanity ($\hat{\gamma} =$ -.32, p = .00), alcohol use ($\hat{\gamma} = -.18$, p = .02), drug use ($\hat{\gamma} = -.73$, p = .01), sexual behavior ($\hat{\gamma} = -.73$) -.50, p = .00), violence ($\hat{\gamma} = -.99$, p = .00), illegal activities ($\hat{\gamma} = -.85$, p = .00), and negative work attitudes/behavior ($\hat{\gamma} = -.73, p = .00$).

STUDY 3: STRUCTURING THE ASSESSMENT OF SM INFORMATION

SM assessments share some similar characteristics with interviews. For example, both methods may require raters to assess applicants on various dimensions based on large amounts of qualitative-oriented information. Applied psychologists have long noted the importance of using structured or standardized assessments (Campion, Palmer, & Campion, 1997). For example, researchers have found that adding structure to selection interviews can increase reliability (e.g., Conway, Jako, & Goodman, 1995), enhance criterion-related validity (e.g., Huffcutt & Arthur, 1994), and reduce subgroup differences (e.g., Huffcutt & Roth, 1998).

On one hand, structuring SM assessments might provide similar benefits (e.g., higher predictive validity) as it does for interviews. Training assessors, for example, might help them focus on job-relevant SM information and avoid the range of personal information Studies 1 and 2 revealed is available on SM sites. On the other hand, SM sites possess some unique characteristics that might limit the potential positive effects of structure. First, unlike interviews, SM sites do not elicit job-related information based on questions. As such, applicants' SM sites may contain minimal job-relevant information. Second, interviewers tend to avoid questions related to applicants' personal information employment laws prohibit or strongly discourage organizations from using for selection (e.g., sexual orientation, religious and political views). Yet, as we discovered in Studies 1 and 2, this information is often available on applicants' SM sites. Finally, the types and amount of SM information can vary greatly across applicants. This is different from a structured interview in which all applicants are asked the same or highly similar questions. Thus, even if SM assessments are highly structured, it might be difficult to evaluate all applicants on the same criteria. Given these competing possibilities, we pose the following question:

Research Question 3: Do structured SM assessments demonstrate stronger evidence of criterion-related validity than unstructured assessments?

Method

We randomly selected 81 of the 140 job seekers from Study 2 and used their job performance and turnover intentions data from a prior data collection effort (Van Iddekinge et al., 2016). The sample was 67.9% female, 66.7% White, 19.8% Hispanic/Latino, and 9.9% African-American. Participants ranged from 20 to 48 years of age (M = 23.98, SD = 5.12).

Between 6 and 12 months after we first contacted job seekers in the prior data collection,

we assessed their intentions to leave their present job using a five-item scale from Bozeman and Perrewé (2001). An example item is "I probably will look for a new job in the near future" (α = .91). We also asked their supervisors to rate their job performance using a 7-item scale adapted from Williams and Anderson (1991). A confirmatory factor analysis provided support for two factors: an in-role performance factor that comprised the three in-role items (e.g., "This employee performs the tasks they are asked to complete") (α = .86) and the overall performance item ("Overall, I am happy with this employee's performance"), and an extra-role performance factor that comprised the three extra-role items (e.g., "This employee goes out of his or her way to help other employees") (α = .68).⁵

A new set of 61 recruiters who attended a university career fair assessed job seekers' SM information in exchange for a \$20 gift card. Recruiters were staffing specialists, hiring managers, or employees involved in recruitment and selection. We excluded one participant who failed the test at the end of rater training. Among the remaining 60 recruiters, 61.7% were female, 83.3% were White, and the average age was 41.07 years (SD = 10.65). Participants possessed an average of 10.14 years of staffing-related experience (SD = 6.61).

We randomly assigned recruiters to one of two conditions. The two conditions had an unequal number of recruiters because of the study design (more details below). In the unstructured condition, we asked recruiters to imagine they were evaluating recent college graduates for a variety of positions and were conducting an initial screen of these individuals. Next, they reviewed job seekers' SM information and rated them on a scale in which 1 = very *low quality applicant* and 7 = very *high quality applicant*. We did not give participants any instructions regarding what information to review or how to evaluate it. We used the single rating to reflect the type of generic rating recruiters might make in a relatively unstructured

assessment. This condition included 18 recruiters, each of whom evaluated an average of 4.50 job seekers.

The structured condition incorporated several elements adopted from the structured interview literature (e.g., Campion et al., 1997) that were most relevant to SM assessments, including rater training, rating specific and well-defined characteristics, note-taking, use of behaviorally-anchored rating scales, and multiple raters. Recruiters first completed a 20-minute, web-based training module that introduced five strategies for assessing job seekers' SM information: (a) focusing on work-related information, (b) using the same criteria to evaluate all job seekers, (c) taking notes about the information observed, (d) avoiding job-irrelevant information, and (e) being aware of decision making errors and biases (e.g., positive-negative asymmetric effect, similar-to-me effect, contrast effect). After the training, recruiters completed a short multiple-choice test of the materials.

Within one week of completing the training, recruiters met with us to assess the same 81 job seekers reviewed in the unstructured condition. During these sessions, we first reviewed key points from the training recruiters completed. Then, as in the unstructured condition, we asked recruiters to imagine they were evaluating recent college graduates. In contrast to the unstructured condition, we standardized the amount of time recruiters spent reviewing each applicant to 15 minutes based on pilot testing that revealed it took about this amount of time to review and evaluate a Facebook site. Further, we provided recruiters a set of behaviorally-anchored scales to assess five characteristics—written communication skills, interpersonal skills, integrity, dutifulness, and stress tolerance—that have been mentioned as variables organizations do or could assess from applicants' SM information (e.g., CareerBuilder, 2017; Davison, Maraist, Hamilton, & Bing, 2009). These characteristics also are relevant to performance in

many types of jobs (e.g., Arthur, Day, McNelly, & Edens, 2003). Each scale included a definition of the characteristic; example behaviors for low, moderate, and high levels of the characteristic (and a corresponding scale of 1 = extremely low to 7 = extremely high); and a place to make notes (see Appendix for an example scale).⁶

Another element of structure is to have multiple raters evaluate each individual to reduce the impact of raters' idiosyncratic tendencies and increase reliability (Campion et al., 1997). Thus, in the structured condition, two recruiters independently rated each job seeker, and we then aggregated their ratings to form an overall score for each dimension.⁷ The structured condition included 42 different recruiters, each of whom evaluated an average of 3.74 job seekers.

Results and Discussion

We first examined the factor structure and reliability of the five behaviorally-anchored rating scales in the structured condition. A principal axis factor analysis (with promax rotation) revealed a strong single factor that explained 61.47% of the variance in recruiters' ratings. Further, the interrater reliability of recruiter ratings in the structured condition ranged from .13 for stress tolerance to .33 for written communication skills. The intraclass correlation coefficient (C,1; McGraw & Wong, 1996) between the mean ratings of the two recruiters was .30 (C,k = .46). Taken together, structuring the SM assessments did not appear to (a) help recruiters differentiate the dimensions assessed or (b) produce high levels of interrater reliability.

As in Study 2, we also examined whether to account for the fact that each recruiter rated multiple job seekers. HLM analyses revealed that the level 2 (i.e., recruiter) variance component was not significant for job performance (Wald z = .18, p = .89) or turnover intentions (Wald z = .78, p = .44). Thus, we did not account for recruiter-level variance in the main analyses.

Table 6 displays descriptive statistics and correlations for the Study 3 variables. Research Question 3 asked whether structured or unstructured SM assessments would demonstrate stronger evidence of criterion-related validity. The unstructured assessments were unrelated to both in-role performance (r = .07, p = .51) and extra-role performance (r = .01, p = .94). The structured assessments were unrelated to in-role performance (r = .06, p = .58) and actually demonstrated a marginally significant, negative relation with extra-role performance (r = .22, p = .05). Further, neither the unstructured (r = .12, p = .29) nor the structured assessments (r = .02, p = .83) predicted turnover intentions. Overall, structuring SM assessments did not improve criterion-related validity.

General Discussion

Social media is changing the way many organizations recruit and assess job applicants (Landers & Schmidt, 2016; Roth, Bobko, Van Iddekinge, & Thatcher, 2016). Yet, we know little about the types of SM information available to organizations. Our study reveals that job seekers disclose various kinds of personal information on Facebook sites, including variables organizations are discouraged or prohibited from asking on applications or during interviews (e.g., sexual orientation, marital status, religion), as well as information that organizations may view negatively (e.g., substance use, sexual behavior, discrimination). These findings support concerns that reviewing applicants' SM information opens the possibility for personal information to influence staffing decisions (e.g., Brown & Vaughn, 2011).

Second, we found that some SM information is related to recruiter evaluations. On the positive side, potentially job-relevant variables such as education and work-related training or skills are associated with more favorable evaluations. Unfortunately, equal employment law-related variables such as gender, marital status, and religion also are related to evaluations and

may disadvantage certain job seekers (e.g., single individuals, those who include information about their religious beliefs). In addition, recruiters appear to penalize job seekers whose SM sites contain content related to substance use, sexual behavior, and other behaviors that may be of concern. Indeed, such information had a consistent, negative relationship with recruiter evaluations, whereas more positive information such as extracurricular activities did not. This finding underscores the uniqueness of SM assessments relative to traditional assessments (e.g., resumes, interviews) that rarely elicit this type of information.

Third, structuring assessments of this information does not appear to improve predictive validity. The findings of Study 1 and Study 2 suggest that Facebook sites do not include much information that is relevant to many types of jobs. This may help explain why recruiters' ratings did not predict future job performance or withdrawal intentions.

Overall, organizations that assess SM sites such as Facebook for staffing purposes, or that are contemplating doing so, should reconsider this practice until more promising evidence emerges. Our study also identifies the types of variables organizations are likely to encounter if they choose to use this practice. This may help organizations decide whether to incorporate SM assessments into their staffing processes, and if so, the information that may be most relevant.

The present findings have implications for job seekers. Our research provides empirical support for the common advice to "be careful what you post" (e.g., Margolis, 2017) as information posted on job seekers SM sites can influence recruiter evaluations. For example, recruiters tend to give lower evaluations to job seekers whose SM sites contain profanity or offensive language, sexual behavior, and substance use (as well as religious affiliation). Job seekers, therefore, should consider "cleaning up" their SM sites prior to job search.⁸ Job seekers might also take steps to limit the information people outside their social network can view. We

also suggest that job seekers who choose to have a SM presence regularly update and monitor the information available, including content posted by other people in their social network. Finally, our findings point to ways job seekers might improve their employment opportunities. For instance, job seekers whose SM sites mention work-related training or skills or demonstrate strong written communication skills tend to receive more favorable recruiter ratings. In contrast, contrary to conventional wisdom, extracurricular activities were unrelated to recruiter evaluations and, thus, might not be as useful when included on SM sites.

Last, we note some potential limitations of our research and how they might be addressed in future research. First, although Facebook remains the most popular SM site, and its content and format has remained fairly consistent over the past decade, some of our findings might not generalize to other SM forms. For instance, employment-related sites such as LinkedIn likely contain more work-related information (Roulin & Levashina, 2019), and future research could examine whether such sites provide different or better information about job applicants than traditional methods such as resumes. Second, we examined the SM information of job seekers in a variety of fields, which may enhance the generalizability of some of the findings. However, this approach did not allow us to examine the effectiveness of SM assessments for a particular job, which, in turn, may have contributed to the lack of predictive validity we observed. Future research might examine whether organizations could use SM information to measure characteristics, behaviors, or experiences relevant to a particular job or organization and see whether evaluations of such variables predict outcomes relevant to that job/organization. Third, although we took steps to ensure the age distribution of the Study 1 sample was representative of the U.S. workforce, other aspects of the sample may be less representative. For example, participants in online panel surveys such as Qualtrics tend to have lower levels of income than

some segments of the workforce (Boas, Christenson, & Glick, 2018).

We found associations between recruiter ratings and SM information related to variables such as gender, marital status, and religion. Future studies might attempt to assess *why* these variables are related to recruiter ratings. In addition, our coding of SM sites focused on information job seekers post about themselves. However, such sites often include information people in a user's network provide, and perhaps some of this information holds predictive value. For example, similar to research on self- versus other-ratings of personality (e.g., Oh, Wang, & Mount, 2011), information other people provide about a user may be less prone to selfpresentation than self-reported information.

Finally, future research could explore alternative ways to evaluate SM information. For example, recent studies suggest that machine learning approaches may show some promise for "scraping" SM information to measure characteristics such as the Big Five personality factors (e.g., Youyou, Kosinski, & Stillwell, 2015). Such approaches—which minimize the potential effects of human information processing limitations and biases—may prove to be more fruitful.

Conclusion

The present research suggests that job seekers' SM sites contain a large amount of equal employment law and other personal information organizations typically cannot access from more traditional selection procedures. Moreover, some of this information relates to recruiter initial evaluations of job seekers, yet appears to be unrelated to future job performance or withdrawal intentions. Further, structuring the assessment of this information does not appear to improve the validity of inferences. As such, organizations should not use SM information during the staffing process, or at minimum, exercise extreme caution in how they use such information. We urge more research to address what appears to be a widely used but not well-understood practice.

References

Adkins, C. L., Russell, C. J., & Werbel, J. D. (1994). Judgments of fit in the selection process: The role of work value congruence. *Personnel Psychology*, 47(3), 605-623.

Alexa.com (2018). The top 500 sites on the web. Retrieved from https://www.alexa.com/topsites.

- Allen, D. G., Peltokorpi, V., & Rubenstein, A. L. (2016). When "embedded" means "stuck": Moderating effects of job embeddedness in adverse work environments. *Journal of Applied Psychology*, 101(12), 1670-1686.
- 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(1), 125-154.
- Bangerter, A., Roulin, N., & König, C. J. (2012). Personnel selection as a signaling game. *Journal of Applied Psychology*, 97(4), 719-738.
- Becton, B., Walker, H. J., Schwager, P., & Gilstrap, J. B. (2017). Is what you see what you get? Investigating the relationship between social media content and counterproductive work behaviors, alcohol consumption, and episodic heavy drinking. *The International Journal* of Human Resource Management, 30(15), 2251-2272.
- Bliese, P. D. (2000). Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 349-381). San Francisco, CA, US: Jossey-Bass.
- Boas, T. C., Christenson, D. P., & Glick, D. M. (2018). Recruiting large online samples in the United States and India: Facebook, Mechanical Turk, and Qualtrics. *Political Science Research and Methods*, 6, 1-19.
- Bozeman, D. P., & Perrewé, P. L. (2001). The effect of item content overlap on Organizational Commitment Questionnaire-turnover cognitions relationships. *Journal of Applied Psychology*, 86(1), 161-173.
- 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 and Psychology*, 26(2), 219-225.
- Cable, D. M., & Judge, T. A. (1997). Interviewers' perceptions of person-organization fit and organizational selection decisions. *Journal of Applied Psychology*, 82(4), 546-561.
- Campion, M. A., Palmer, D. K., & Campion, J. E. (1997). A review of structure in the selection interview. *Personnel Psychology*, 50(3), 655-702.
- CareerBuilder. (2016). Number of employers using social media to screen candidates has increased 500 percent over the last decade. Retrieved from https://www.

careerbuilder.com/share/ aboutus/pressreleasesdetail.aspx?ed= 12%2F31%2F2016&id =pr945&sd=4%2F28%2F2016.

- CareerBuilder. (2017). 2017 National survey. Retrieved from http://press.careerbuilder.com /2017-06-15-Number-of-Employers-Using-Social-Media-to-Screen-Candidates-at-All-Time-High-Finds-Latest-CareerBuilder-Study.
- Cole, M. S., Feild, H. S., Giles, W. F., & Harris, S. G. (2003). Using recruiter assessments of applicant résumé content to predict applicant mental ability and big five personality dimensions. *International Journal of Selection and Assessment*, *11*, 78-86.
- Conway, J. M., Jako, R. A., & Goodman, D. F. (1995). A meta-analysis of interrater and internal consistency reliability of selection interviews. *Journal of Applied Psychology*, 80(5), 565-579.
- Davison, H. K., Maraist, C. C., Hamilton, R. H., & Bing, M. N. (2009). To screen or not to screen? Using the Internet for selection decisions. *Employee Responsibilities and Rights Journal*, 24(1), 1-21.
- Eberly, M. B., Holley, E. C., Johnson, M. D., & Mitchell, T. R. (2017). It's not me, it's not you, it's us! An empirical examination of relational attributions. *Journal of Applied Psychology*, *102*(5), 711-731.
- Hebl, M. R., & Mannix, L. M. (2003). The weight of obesity in evaluating others: A mere proximity effect. *Personality and Social Psychology Bulletin*, 29(1), 28-38.
- Henderson, K.E. (2018). They posted what? An examination of the use of social media in hiring. *Organizational Dynamics*. Advance online publication.
- Hofmann, D. A., Griffin, M. A., & Gavin, M. B. (2000). The application of hierarchical linear modeling to organizational research. In K. J. Klein & S. W. J. Kozlowski (Eds.), *Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions* (pp. 467-511). San Francisco, CA: Jossey-Bass.
- Huffcutt, A. I., & Arthur, W. Jr. (1994). Hunter and Hunter (1984) revisited: Interview validity for entry-level jobs. *Journal of Applied Psychology*, 79, 184-190.
- Huffcutt, A. I., & Roth, P. L. (1998). Racial group differences in employment interview evaluations. *Journal of Applied Psychology*, 83, 179-189.
- Kluemper, D. H., Mitra, A., & Wang, S. (2016). Social media use in HRM. *Personnel and Human Resources Management, 34*, 153-207.
- 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*(5), 1143-1172.

- Landers, R. N., & Schmidt, G. B. (2016). Social media in employee selection and recruitment. Theory, practice, and current challenges. Cham, Switzerland: Springer International Publishing.
- Margolis, J. (2017). *Be careful with social media employers are watching*. Retrieved from https://www.ft.com/content/5b8bb3b0-6aca-11e7-b9c7-15af748b60d0.
- McGraw, K. O., & Wong, S. P. (1996). Forming inferences about some intraclass correlation coefficients. *Psychological Methods*, *1*, 30-46.
- Oh, I.-S., 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(4), 762-773.
- Riggio, R. E., Widaman, K. F., Tucker, J. S., & Salinas, C. (1991). Beauty is more than skin deep: Components of attractiveness. *Journal Basic and Applied Social Psychology*, 12, 423-439.
- 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(1), 269-298.
- Roulin, N., & Levashina, J. (2019). LinkedIn as a new selection method: Psychometric properties and assessment approach. *Personnel Psychology*, 72, 185-211.
- Shapiro, J. R., King, E. B., & Quinones, M. A. (2007). Expectations of obese trainees: How stigmatized trainee characteristics influence training effectiveness. *Journal of Applied Psychology*, 92(1), 239-249.
- Spence, M. (1973). Job market signaling. The Quarterly Journal of Economics, 87, 355-373.
- Strauss, K., Griffin, M. A., & Parker, S. K. (2012). Future work selves: How salient hoped-for identities motivate proactive career behaviors. *Journal of Applied Psychology*, 97(3), 580-598.
- Thoms, P., McMasters, R., Roberts, M. R., & Dombkowski, D. A. (1999). Résumé characteristics as predictors of an invitation to interview. *Journal of Business and Psychology*, 13, 339-356.
- Tsai, W., Chi, N., Huang, T., & Hsu, A. (2011). The effects of applicant résumé contents on recruiters' hiring recommendations: The mediating roles of recruiter fit perceptions. *Applied Psychology: An International Review*, 60(2), 231-254.
- 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(7), 1811-1835.

- Vitak, J., Blasiola, S., Patil, S., & Litt, E. (2015). Balancing audience and privacy tensions on social network sites: Strategies of highly engaged users. *International Journal of Communication*, *9*, 1485-1504.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601-617.
- Youyou, W., Kosinski, M., & Stillwell, D. (2015). Computer-based personality judgments are more accurate than those made by humans. *Proceedings of the National Academy of Sciences of the United States of America, 112*, 1036-1040.

Footnotes

¹Study 1 was approved by the Florida State University Research Human Subjects Committee (HSC No.2018.26230, titled "What's in applicants' social media profiles? Effects on recruiter ratings and job performance"). Study 2 and 3 were approved by the Florida State University Research Human Subjects Committee (HSC No. 2017.21595, titled "What's in applicants' social media profiles? Effects on recruiter ratings and job performance"; HSC No. 2009.2273, titled "Social networks, personality, and job performance") and the broader data set was used in another paper (Van Iddekinge et al., 2016).

²U.S. employment laws, such as Title VII of the Civil Rights Act of 1964, prohibit employment discrimination based on factors such as sex, race, national origin, age, and disability. However, these laws do not apply to organizations with fewer than 15 employees or to certain types of organizations (e.g., private clubs, Indian reservations). In addition, characteristics such as sex may be considered a bona fide occupational qualification (BFOQ) for certain types of jobs (e.g., fashion models).

³SM sites such as Facebook enable users to restrict information people who visit their site can view. So, we examined the extent to which job seekers restrict the information available to organizations. Results of chi-square tests (of differences concerning the likelihood of information availability) suggested that the variables we coded were similarly available for job seekers whose sites are completely accessible and those that are restricted. The only statistically significant difference was that race/ethnicity information was somewhat *more* prevalent on restricted sites (91.5%) than on completely accessible sites (77.8%). Results are available from the first author.

⁴Although we did not administer this scale to study participants, we recognize that the anchors are insensitive to individuals who may be overweight. We encourage future researchers

to consider adapting the anchors or use different ones (e.g., Shapiro, King, & Quinones, 2007).

⁵An initial examination of the seven job performance ratings suggested that the overall performance item loaded with the three in-role performance items rather than with the three extra-role items or as its own factor. Indeed, a confirmatory factor analysis revealed that a two-factor model consisting of an in-role performance factor and an extra-role performance factor fit the data very well ($\chi^2 = 5.56$, df = 8, p = .70; non-normed fit index [NFI] = .97; comparative fit index [CFI] = 1.00; root mean square error of approximation [RMSEA] = .00). Further, the two-factor model fit the data significantly better ($\Delta \chi^2 = 7.73$, df = 1, p < .01) than did a single-factor model (e.g., $\chi^2 = 13.29$, df = 9, p = .15; NFI = .92; CFI = .97; RMSEA = .07).

⁶We also asked recruiters to assess confidence in their ratings on a scale in which 1 = notat all confident and 5 = very confident. Recruiters in the unstructured condition rated how confident they were in assessing the overall quality of each job seeker, and recruiters in the structured condition rated their confidence in assessing each of the five dimensions. The mean confidence rating was 3.42 (SD = .97) in the unstructured condition and 3.39 (SD = .60) in the structured condition. So, recruiters tended to be moderately confident in both conditions. Interestingly, providing participants more structure did not appear to produce higher levels of confidence compared to participants in the unstructured condition.

⁷We explored whether results for the structured condition change if we used only one set of recruiter ratings rather than the mean of two recruiters. The direction and magnitude of relations between the SM ratings and outcomes were very similar.

⁸We asked Study 1 participants several questions regarding the extent to which job seekers changed their Facebook information prior to their job. We found that the most common step job seekers had taken was to increase privacy restrictions, with 61.6% indicating they

changed at least some of their information. A total of 36.4% of job seekers "untagged" themselves from other people's posts or pictures, and 35.3% indicated they deleted posts or pictures. Results are available from the first author.

Table 1

Social Media Information Coded in Studies 1 and 2

Variable	Definition and information			Coder agreement	
	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Age	Job seekers' age. Used birth year from "Contact and Basic Information" section or other cues.	 <u>Equal employment law informat</u> Available (years of age) Not available 	 <u>ion</u> A job seeker posted her birth day and year, and we used this information to calculate her age. A job seeker posted a photo celebrating her 21st birthday. 	100/ 100	100/ 100
Gender	Job seekers' gender identity. Used "Gender" in the "Contact and Basic Information" section or other cues.	 Available (female, male, or transgender) Available but inconclusive Not available 	 A job seeker indicated "male" in the "Contact and Basic Information" section. A job seeker wrote that he was transgendered. 	99.7/ 98.7	100/ 96.4
Race/Ethnicity	Job seekers' race/ethnicity. Used photos or other cues.	 Available (African American, Asian, Latino/Hispanic, White, or another racial/ethnic group) Available but inconclusive Not available 	6	99.0/ 82.6	97.8/ 89.8
National origin	Job seekers' country of birth. Used "Hometown" in the "Current City and Hometown" section or other cues.	 Available (United States or another country) Available but inconclusive Not available 	 A job seeker posted "Austin, TX" as his hometown. A job seeker posted cities she lived in but did not say her hometown. We coded it as <i>not</i> <i>available</i>. 	91.6/ 91.3	94.2/ 94.2

	Definition and information			Coder a	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Pregnancy status	Whether female job seekers were pregnant or expressed a desire to become pregnant. Used all available information.	 Available (pregnant or a desire to become pregnant) Not available 	 A job seeker posted her expected due date. A job seeker posted about her intentions of getting pregnant. 	96.5/ 96.5	99.3/ 99.3
Disability status	Whether job seekers have a (a) physical disability (e.g., blindness), (b) psychological disability (e.g., depression), or (c) major illness (e.g., cancer). Used all available information.	 Available (physical disability, psychological disability, or major illness) Not available 	• A job seeker posted photos of herself in a wheelchair and commented she was diagnosed with a physical disease.	98.7	100
			• A job seeker had many posts indicating she was depressed.	94.5	100
			• A job seeker indicated having cancer.	98.6	100
Religious affiliation	Job seekers' religion or	• Available (Christian, Jewish,	• A job seeker self-identified as "a	79.7/	91.2/
or beliefs	expression of religious beliefs. Used "Religion" in "Contact and Basic Information" section or other cues.	Muslim, another religion, or non-religious)Available but inconclusiveNot available	 Jew" and attended synagogue. A job seeker regularly attends a Methodist church. We coded it as <i>Christian</i>. A job seeker referred to "God" but did not indicate his religion. Given the presence of God(s) in multiple religions, we coded it as <i>available but inconclusive</i>. 	73.9	84.7
Sexual orientation	Job seekers' sexual orientation. Used "Interested in" in the "Contact and Basic Information" section or other cues.	 <u>Other personal information</u> Available (heterosexual, gay/lesbian, or bisexual) Available but inconclusive Not available 	 A job seeker posted wedding photos with a person of the opposite sex. A female job seeker posted photos of herself kissing and embracing another female. 	81.9/ 81.3	93.4/ 92.7

	Definition and information			Coder ag	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Marital status	Job seekers' marital status. Used "Family and Relationships" section or other cues.	 Available (married, engaged, in a relationship, or single) Available but inconclusive Not available 	 A job seeker posted wedding photos and had some recent photos with the same partner. A job seeker indicated her relationship status as single. 	91.0/ 87.4	94.2/ 93.4
Child dependents	Whether job seekers have children under 18 years of age. Used "Family and Relationships" section or other cues.	Available (yes or no)Available but inconclusiveNot available	 Friends of a female job seeker wished her a happy Mother's Day. We coded it as <i>yes</i>. A job seeker mentioned not wanting children. We coded it as <i>no</i>. 	81.9/ 73.9	84.7/ 89.1
Socioeconomic status (SES)	Job seekers' SES, which includes (a) their parents' education level, (b) their parents' occupational status, (c) the wealth of the family in which job seekers were raised, and (d) job seekers' current wealth. Used all available information.	AvailableAvailable but inconclusiveNot available	 A job seeker posted about the necessity of food stamps for her family. A job seeker posted that her parents owned a "mom and pop" grocery and meat market in Boston. 	93.9	98.5
Political affiliation or beliefs	Job seekers' political party affiliation or expression of political beliefs. Used "Political Party" in the "Contact and Basic Information" section or other cues.	 Available (democratic, green, independent, libertarian, or republican) Available but inconclusive Not available 	 A job seeker identified as "Republican" in the political views section. A job seeker posted political views (e.g., against Donald Trump) but did not clearly indicate a political party affiliation. We coded it as <i>available but inconclusive</i>. 	86.1/ 83.6	91.2/ 86.9

	Definition and information			Coder a	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Physical attractiveness (Study 2 only)	Job seekers' physical attractiveness. Assessed based on job seekers' photos.	 Available (<i>extremely</i> <i>unattractive</i> [1] to <i>extremely</i> <i>attractive</i> [7]) Not enough information to evaluate 		N/A	.80/ .89 ^b
Obesity (Study 2 only) ⁴	Perceived obesity of job seekers. Assessed based on job seekers' photos.	 Available (<i>not at all fat</i> [1] to <i>very fat</i> [7]) Not enough information to evaluate Information organizations routinely 	255655	N/A	.88/ .93 ^b
Education	The highest level of formal education job seekers have attained. Used "Work and Education" section or other cues.	 Available (less than high school degree, high school degree, high school degree, some college but no degree, associate's degree, bachelor's degree, master's degree, or post master's degree) Not available 	 A job seeker posted her high school but did not include any post-high school education information. We coded it as <i>high school degree</i>. A job seeker left the education section blank but posted photos of himself wearing a doctor's coat in a hospital and his friend called him doctor. We coded it as <i>post master's degree</i>. 	97.1/ 88.4	100/ 92.7
Work experience	Information related to job seekers' past or current jobs (e.g., positions held). Used "Work and Education" section or other cues.	 Available or not available (Study 1) Little, some, or substantial experience (Study 2) Not available 	 A job seeker posted that she worked as an accountant for a hotel. A job seeker posted that he is the chief cook at a local restaurant. 	94.8	97.8/ 93.4

	Definition and information			Coder ag	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Work-related training or skills	Work-related training job seekers have completed or skills they possess. All available information.	 Available or not available (Study 1) Little, some, or substantial training/skills (Study 2) 	 A job seeker took a medical assistant certification course in a university. A job seeker posted photos of her product design work. 	95.8	92.7/ 92.7
Extracurricular activities	1 1	• Available (volunteer, religious, creative, athletic, or academic activities) or not available (Study 1)	• A job seeker asked for donations to a non-profit organization as her birthday gifts (volunteer activities).	87.1	77.4
academic activities. Used available information.	academic activities. Used all available information.	 Available (little, some, or substantial involvement in each of the above activities) or not available (Study 2) 	• A job seeker commented on attending a church service (religious activities).	98.4	92.0
			• A job seeker sold handmade items at arts and crafts festivals (creative activities).	98.1	95.6
			• A job seeker posted that she joined a badminton club (athletic activities).	97.7	93.4
			 A job seeker posted that she was a member of the Alpha Epsilon Delta honor society (academic activities). 	_s 99.7	72.3
Written communication skills (Study 2 only)	Job seekers' written communication skills. Assessed writing quality based on posts.	 Available (<i>extremely bad</i> [1] to <i>extremely good</i> [7] Not enough information to evaluate. 	 A job seeker posted frequently but the meaning was sometimes unclear and posts included frequent grammatical errors. We coded this as <i>somewhat bad</i>. A job seeker only posted two or three times. We coded this as <i>not</i> <i>enough information to evaluate</i>. 	N/A	.27/ .43 ^b

	Definition and information			Coder a	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Profanity		 <u>rmation that may be a concern to org</u> Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial profanity), available but inconclusive, or not available (Study 2) 		91.9	73.7
Discrimination	Job seekers' discriminatory attitudes or behaviors targeted at members of particular groups. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial discrimination), available but inconclusive, or not available (Study 2) 	 A job seeker posted anti-Islamic phrases. A white job seeker used the "N word" when referring to an African-American person. 	98.4	92.7
Interpersonal conflict	Conflicts between job seekers and people in or outside their social network. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial conflict), available but inconclusive, or not available (Study 2) 	 A job seeker and their "estranged" son had ongoing arguments with one another. A job seeker stated that he hated one of his friends. 	93.9	97.1

	Definition and information			Coder ag	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Alcohol use	Job seekers' promotion of drinking, intentions to consume alcohol, or actual drinking behavior. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial alcohol use), available but inconclusive, or not available (Study 2) 	 A job seeker posted that she has consumed "too much booze over the past 365 days." A job seeker posted photos with empty beer bottles, but we were unsure of his behavior. We coded it as <i>available but inconclusive</i>. 	86.5	80.3
Tobacco or nicotine use	Job seekers' promotion of tobacco or nicotine, intentions to use tobacco/nicotine, or actual use of these substances. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial tobacco use), available but inconclusive, or not available (Study 2) 	 A job seeker posted a photo smoking with friends. A job seeker posted about their inability to quit smoking. 	94.2	98.5
Drug use	Job seekers' promotion of (non-prescription) drugs, intentions to use drugs, or actual use of drugs. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial drug use), available but inconclusive, or not available (Study 2) 	 A job seeker posted photos smoking marijuana. A job seeker posted photos of marijuana plants without further explanation. We coded it as <i>available but inconclusive</i>. 	94.2	94.9
Gambling	Job seekers' promotion of gambling, intentions to gamble, or actual gambling behavior. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial gambling), available but inconclusive, or not available (Study 2) 	 A job seeker asked his friends to join him in an online poker tournament. A job seeker posted about experiences playing a gambling app, which may or may not involve real money. We coded it as <i>available but inconclusive</i>. 	93.2	96.4

	Definition and information			Coder ag	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Violence	Job seekers' promotion of violence, intentions to be violent, or actual violent behavior. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial violence), available but inconclusive, or not available (Study 2) 	 A job seeker shared photos that promoted war. A job seeker posted a photo that suggested if someone disrespects her dog, she will shoot them. 	92.3	94.2
Sexual behavior	Job seekers' promotion of sex, intentions to engage in sex, or actual sexual behavior. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial sexual behavior), available but inconclusive, or not available (Study 2) 	 A job seeker included posts about her intentions to have sexual relations. A job seeker shared a photo and link from a pornographic website. 	91.0	78.1
Illegal activities ^c	Job seekers' promotion of illegal actions, intentions to engage in illegal actions, or actual illegal behavior. Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial illegal activities), available but inconclusive, or not available (Study 2) 	 A job seeker commented that she had to hide her alcohol and put on her seatbelt when she saw blue lights. A job seeker posted about desiring sexual relations with a prostitute. 	98.1	96.4

	Definition and information			Coder ag	greement
Variable	used to code	Coding categories	Examples of available information ^a	Study 1	Study 2
Negative work attitudes and behaviors	Job seekers' negative attitudes about work or engaging in counterproductive work behaviors (e.g., absenteeism, loafing, "bad talking" company). Used all available information.	 Available, available but inconclusive, or not available (Study 1) Available (little, some, or substantial negative attitudes/behaviors), available but inconclusive, or not available (Study 2) 	 A job seeker stated that what she likes most about her job is lunch breaks and leaving. A job seeker posted "when you and your favorite co-worker can see everything falling apart at work, but you don't get paid enough to actually do anything about it." 	97.4	92.7

Note. With the exception of three variables (see note below), intercoder statistics represent the percent agreement between two coders. For variables for which two agreement statistics are reported, the first value reflects percent agreement on whether information about the variable was available, available but inconclusive, or not available, whereas the second value represents percent agreement on the subcategories of the variable.

^aThese are actual examples from the SM sites we coded.

^bThe first intercoder value represents the single-rater intraclass correlation coefficient [ICC(C,1)] and the second value represents the average-rater ICC(C,k) (McGraw & Wong, 1996). These coefficients reflect the consistency of ratings between the two coders on the Likert-type scale used to code the variable.

^cSome illegal activities also were coded as representing other categories. For example, we coded drinking in a vehicle in both the "alcohol use" and "illegal activities" categories.

Table 2

Availability of Information on Job Seekers' Social Media Sites (Study 1)

Variable	N	%	Variable	N	%
	Equal	employm	ent law information		
Age	43	16.2	Pregnancy status ^a	5	3.(
Gender	266	100.0	Pregnant	4	2.4
Female	166	62.4	Desires to become pregnant	1	0.6
Male	99	37.2	Disability status	19	7.1
Transgender	1	0.4	Physical disability	4	1.5
Race/Ethnicity	266	100.0	Psychological disability	12	4.5
White	133	50.0	Major illness	3	1.
African American	37	13.9	Religious affiliation or beliefs	110	41.4
Hispanic/Latino	9	3.4	Christian	32	12.0
Asian	11	4.1	Jewish	3	1.
Available but inconclusive	76	28.6	Muslim	2	0.8
National origin	149	56.0	Other religions	2	0.8
United States	135	50.8	Non-religious	4	1.:
Another country	14	5.3	Available but inconclusive	67	25.2
	Ot	her person	nal information		
Sexual orientation	156	58.6	Socioeconomic status	14	5.
Heterosexual	135	50.8	Parents' education level	0	0.0
Gay/lesbian	3	1.1	Parents' occupational status	2	0.3
Bisexual	8	3.0	Wealth of job seeker's family	0	0.0
Available but inconclusive	10	3.8	Job seeker's current wealth	11	4.
Marital status	154	57.9	Available but inconclusive	1	0.4
Single	34	12.8	Political affiliation or beliefs	70	26.
In a relationship	29	10.9	Democratic	7	2.0
Engaged	8	3.0	Green	1	0.4
Married	69	25.9	Independent	1	0.4
Available but inconclusive	14	5.3	Libertarian	1	0.4
Child dependents	129	48.5	Republican	4	1.:
Has children under 18	60	22.6	Available but inconclusive	56	21.
Does not have children	8	3.0			
Available but inconclusive	61	22.9			
			zations routinely assess		
Education	151	56.8	Work experience	109	41.0
Less than high school degree	2	0.8	Work-related training or skills	13	4.
High school degree	45	16.9	Extracurricular activities ^b	83	31.2
Some college but no degree	48	18.0	Volunteer	73	27.4

Variable	N	%	Variable	N	%
Associate's degree	10	3.8	Religious	7	2.6
Bachelor's degree	37	13.9	Creative	4	1.5
Master's degree	8	3.0	Athletic	9	3.4
Post master's degree	1	0.4	Academic	0	0.0
Inform	nation that	may be	a concern to organizations		
Profanity	136	51.1	Drug use	19	7.1
Discrimination	5	1.9	Available	13	4.9
Available	2	0.8	Available but inconclusive	6	2.3
Available but inconclusive	3	1.1	Interpersonal conflict	21	7.9
Sexual behavior	40	15.0	Available	14	5.3
Available	25	9.4	Available but inconclusive	7	2.6
Available but inconclusive	15	5.6	Violence	27	10.2
Gambling	30	11.3	Available	17	6.4
Available	7	2.6	Available but inconclusive	10	3.8
Available but inconclusive	23	8.6	Illegal activities	5	1.9
Alcohol use	68	25.6	Available	3	1.1
Available	48	18.0	Available but inconclusive	2	0.8
Available but inconclusive	20	7.5	Negative work attitudes/behaviors	8	3.0
Tobacco or nicotine use	22	8.3	Available	5	1.9
Available	15	5.6	Available but inconclusive	3	1.1
Available but inconclusive	7	2.6			

Note. N = 266. *N* and % next to each variable name reflect the number and percentage of job seekers for whom information concerning the variable was available. Some percentages do not sum to exactly 100% due to rounding.

^aResults based on female participants only.

^bThe number of individual extracurricular activities exceeds the total amount because some job seeker SM sites showed evidence of participation in multiple activities.

Table 3

Variable	N	%	Variable	N	%
	Equal e	employm	ent law information		
Age	89	63.6	Pregnancy status ^a	0	0.0
Gender	138	98.6	Disability status	1	0.7
Female	92	65.7	Physical disability	0	0.0
Male	46	32.9	Psychological disability	1	0.7
Race/Ethnicity	137	97.9	Major illness	0	0.0
White	109	77.9	Religious affiliation or beliefs	81	57.9
African American	7	5.0	Christian	48	34.3
Hispanic/Latino	9	6.4	Jewish	4	2.9
Asian	1	0.7	Muslim	0	0.0
Available but inconclusive	11	7.9	Non-religious	3	2.1
National origin	93	66.4	Available but inconclusive	26	18.6
United States	92	65.7			
Another country	1	0.7			
	<u>Otł</u>	<u>ner persoi</u>	nal information		
Sexual orientation	111	79.3	Socioeconomic status	3	2.1
Heterosexual	107	76.4	Parents' education level	0	0.0
Gay/lesbian	3	2.1	Parents' occupational status	0	0.0
Bisexual	1	0.7	Wealth of job seeker's family	0	0.0
Marital status	103	73.6	Job seeker's current wealth	3	2.1
Single	26	18.6	Political affiliation or beliefs	77	55.0
In a relationship	48	34.3	Democratic	8	5.7
Engaged	6	4.3	Green	0	0.0
Married	19	13.6	Independent	2	1.4
Available but inconclusive	4	2.9	Libertarian	0	0.0
Child dependents	34	24.3	Republican	2	1.4
Has children under 18	9	6.4	Available but inconclusive	65	46.4
Does not have children	1	0.7	Physical attractiveness	127	90.7
Available but inconclusive	24	17.1	Obesity	120	85.7
<u>In</u>	formatio	<u>n organiz</u>	zations routinely assess		
Education	140	100.0	Work-related training or skills	6	4.3
Less than high school degree	0	0.0	Written communication skills	108	77.1
High school degree	0	0.0	Extracurricular activities ^b	62	44.3
Some college but no degree	0	0.0	Volunteer	33	23.6
Associate's degree	0	0.0	Religious	16	11.4
Bachelor's degree	88	62.9	Creative	9	6.4

Availability of Information on Job Seekers' Social Media Sites (Study 2)

Variable	N	%	Variable	N	%
Master's degree	47	33.6	Athletic	11	7.9
Post master's degree	5	3.6	Academic	47	33.6
Work experience	84	60.0			
Inform	nation that	t may be	a concern to organizations		
Profanity	74	52.9	Drug use	8	5.7
Discrimination	11	7.9	Available	7	5.0
Available	8	5.7	Available but inconclusive	1	0.7
Available but inconclusive	3	2.1	Interpersonal conflict	3	2.1
Sexual behavior	33	23.6	Available	2	1.4
Available	28	20.0	Available but inconclusive	1	0.7
Available but inconclusive	5	3.6	Violence	9	6.4
Gambling	6	4.3	Available	6	4.3
Available	2	1.4	Available but inconclusive	3	2.1
Available but inconclusive	4	2.9	Illegal activities	11	7.9
Alcohol use	77	55.0	Available	10	7.1
Available	73	52.1	Available but inconclusive	1	0.7
Available but inconclusive	4	2.9	Negative work attitudes/behaviors	10	7.1
Tobacco or nicotine use	3	2.1	Available	7	5.0
Available	3	2.1	Available but inconclusive	3	2.1
Available but inconclusive	0	0.0			

Note. N = 140. N and % next to each variable name reflect the number and percentage of job seekers for whom information concerning the variable was available. Some percentages do not sum to exactly 100% due to rounding.

^aResults based on female participants only.

^bThe number of individual extracurricular activities exceeds the total amount because some job seeker SM sites showed evidence of participation in multiple activities.

Table 4

Correlations for the Study 2 Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age														
2. Gender	.06													
3. Race/Ethnicity	10	.03												
4. Marital status	.17	.11	22*											
5. Religious affiliation/beliefs	08	23**	.01	23*										
6. Political affiliation/beliefs	10	10	16	18	.36**									
7. Physical attractiveness	17	.32**	.02	.31**	20*	20*								
8. Obesity	01	.02	.01	26*	02	.14	41**							
9. Education	.42**	.00	15	.22*	10	.04	10	12						
10. Work experience	.03	.04	06	.17	.06	.24**	16	.12	.15					
11. Work-related training or skills	10	08	.03	.06	03	02	04	.16	15	.16				
12. Written communication skills	.33**	.10	22*	.04	01	.15	08	05	.40**	.26**	09			
13. Volunteer activities	07	.12	.09	04	02	.15	05	08	.02	.16	.00	.05		
14. Religious activities	17*	.07	02	20*	.25**	.06	.06	.03	23**	.16	07	.11	.11	
15. Creative activities	08	.04	11	.17	01	.19*	.04	14	04	.01	.06	.08	.32**	.04
16. Athletic activities	12	14	.09	.09	.07	03	06	.03	21*	09	06	02	06	.10
17. Academic activities	11	.16	.12	.05	.10	01	.01	.05	17	.12	.10	08	.02	.10
18. Profanity	21*	.04	.03	01	.07	.00	.04	.06	12	04	.03	18	.02	07
19. Discrimination	10	08	.06	08	.03	.10	10	.01	02	.02	06	09	14	04
20. Sexual behavior	22**	.01	.11	.00	.02	06	.07	07	31**	01	.07	18	03	01
21. Gambling	.04	.00	08	03	.04	.05	.11	02	09	14	05	.02	.11	01
22. Alcohol use	22**	.09	06	.06	17*	05	.17	.03	16	05	.04	27**	.00	11
23. Drug use	10	.17*	01	28**	01	.11	03	.17	13	18*	05	14	.00	.05
24. Violence	06	.07	10	.01	09	.13	01	.04	05	.16	05	06	.02	02
25. Illegal activities	13	05	03	10	05	.11	05	.05	16	.04	06	17	01	04
26. Negative work attitudes/behavior	09	.19*	.05	.08	.08	.00	.16	.06	11	.17*	06	.04	.05	.15
27. Less serious behaviors	27**	.09	.01	.00	06	03	.12	.04	23**	07	.05	28**	.00	08
28. More serious behaviors	13	02	03	07	05	.16	08	.05	11	.10	08	15	06	05
29. Recruiter evaluations	.16	.20*	17	.27**	15	.02	01	13	.24**	.04	.19*	.26**	.07	.07

Variable	15	16	17	18	19	20	21	22	23	24	25	26	27	28
15. Creative activities														
16. Athletic activities	.10													
17. Academic activities	02	.15												
18. Profanity	.03	.09	.15											
19. Discrimination	.01	.05	.00	.10										
20. Sexual behavior	.00	.22**	.16	.50**	.26**									
21. Gambling	05	.03	.07	.08	06	.07								
22. Alcohol use	.06	.04	.10	.48**	.22*	.37**	.07							
23. Drug use	06	07	.19*	.29**	.03	.24**	.21*	.20*						
24. Violence	.24**	07	17	.04	.21*	.04	05	.08	.03					
25. Illegal activities	.00	.04	.02	.26**	.35**	.45**	.06	.26**	.19*	.34**				
26. Negative work attitudes/behavior	.05	.03	.12	.15	.01	.13	06	.08	.12	.10	.01			
27. Less serious behaviors	.04	.11	.18*	.81**	.23**	.70**	.11	.84**	.42**	.07	.39**	.15		
28. More serious behaviors	.11	.01	07	.19*	.69**	.35**	02	.25**	.12	.71**	.79**	.05	.32**	
29. Recruiter evaluations	.00	02	.02	22**	18*	29**	12	22*	25**	30**	26**	24**	31**	34**

Note. N = 140 for all variables except gender (138), race/ethnicity (126), marital status (99), physical attractiveness (127), obesity (120), and written communication skills (108). For gender, 1 = male and 2 = female. For race/ethnicity, 1 = White and 2 = minorities (which includes African-American, Asian, and Hispanic/Latino). For marital status, 1 = single and 2 = in a relationship, engaged, or married. For religious and political affiliation or beliefs, 0 = information not available and 1 = information available. For the remaining variables, please see the rating scale descriptions in the Study 2 Method section.

***p* < .01. **p* < .05.

Table 5

Results of Hierarchical Linear Modeling Analyses Relating Social Media Information to

Category/Variable	Ŷ	SE	t
Equal employment law information			
Age	.03	.01	3.10**
Gender	.41	.17	2.45*
Race/Ethnicity	43	.24	-1.81
Marital status	.54	.20	2.65**
Religious affiliation or beliefs	37	.16	-2.36*
Other personal information			
Political affiliation or beliefs	.07	.16	.47
Physical attractiveness	.06	.13	.44
Obesity	13	.10	-1.28
Information organizations assess			
Education	.36	.14	2.59*
Work experience	.01	.07	.16
Work-related training or skills	1.01	.39	2.56*
Written communication skills	.37	.13	2.83**
Extracurricular activities			
Volunteer	.04	.13	.35
Religious	.11	.13	.84
Creative	08	.13	59
Athletics	01	.13	06
Academic	.01	.08	.12
Information that may be of concern			
Profanity	32	.10	-3.32**
Discrimination	49	.29	-1.71
Alcohol use	18	.07	-2.45*
Drug use	73	.28	-2.61*
Sexual behavior	50	.13	-3.85**
Gambling	43	.39	-1.10
Violence	99	.27	-3.66**
Illegal activities	85	.25	-3.41**
Negative work attitudes/behavior	73	.25	-2.91**

Recruiter Evaluations (Study 2)

Note. N = 140 for all variables except gender (138), race/ethnicity (126), marital status (99), physical attractiveness (127), obesity (120), and written communication skills (108). For age, we used job seekers' self-reported age (which was available for all 140 job seekers) rather than age based on date of birth reported on the Facebook sites (which was available for only 89 job

seekers). HLM = hierarchical linear model. $\hat{\gamma}$ = unstandardized coefficient. *SE* = standard error. For gender, 1 = male and 2 = female. For race/ethnicity, 1 = White and 2 = minorities (which includes African-American, Asian, and Hispanic/Latino). For marital status, 1 = single and 2 = in a relationship, engaged, or married. For religious and political affiliation or beliefs, 0 = information not available and 1 = information available. For the remaining variables, please see the rating scale descriptions in the Study 2 Method section.

 $p^{**}p < .01$. $p^{*} < .05$.

Table 6

Descriptive Statistics and Correlations for the Study 3 Variables

Variable	М	SD	1	2	3	4	5	6	7
1. Unstructured SM ratings	4.15	1.52							
2. Unstructured confidence ratings ^a	3.42	.97	.18						
3. Structured SM ratings	4.73	.92	.31**	08	(.83)				
4. Structured confidence ratings ^a	3.39	.60	.20	.28*	.34**	(.85)			
5. In-role performance	6.58	.65	.07	18	06	.19	(.86)		
6. Extra-role performance	6.13	.98	01	04	22*	.10	.63**	(.68)	
7. Turnover intentions	2.40	1.12	.12	.17	.02	07	07	15	(.91)

Note. N = 81. SM = social media. Cronbach's alpha reliability estimates are in parenthesis along the diagonal. ^aWe asked recruiters to indicate how confident they were in their ratings of job seekers' SM information. See Footnote 7 for more details.

 $p^{**} < .01.$ $p^{*} < .05.$

Appendix

Example Behavioral Rating Scale from the Structured Condition in Study 3

Interpersonal Skills										
Definition: Skill with which individuals interact with others; includes considering others' feelings and reactions and treating others with politeness and respect.										
• Is self-focused and does not consider the thoughts or feelings of others.	• Generally is aware of others' thoughts and feelings, but at times can be self-focused.	• Almost always considers others' thoughts and feelings and makes it a priority to understand them.								
• Is frequently involved in conflicts with others and rarely tries to resolves them.	• Occasionally is involved in conflicts with others and may have difficulty resolving them in an appropriate way.	• Rarely has conflicts with others, and when they do, can effectively resolve the conflicts.								
• Facebook posts and replies are rude or insensitive towards others; does not reply to comments people post about them.	• Posts and replies generally are polite and considerate towards others, but some posts may be less tactful or insensitive; may not always reply to comments people post about them.	• Posts are polite and respectful towards others; almost always replies to others' comments and does so in a kind way.								
• Friends' comments about the applicant suggest the person may be difficult to get along with.	• Friends' comments about the applicant generally are positive.	• Friends' comments indicate that the applicant is well-liked.								
Low	Moderate	High								
1 2	3 4 5	6 7								

Please circle the number that best reflects how confident you are in your rating of the applicant's interpersonal skills based on the information provided in their Facebook profile.

Not at all confident	Not very confident	Somewhat confident	Confident	Very confident
1	2	3	4	5