HR Machine Learning on Social Media Data

Jake Harrison
Utah State University, jakethomasharrison@gmail.com

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I. Introduction

• Many of today’s tech giants such as Apple, Netflix, Amazon, and Google are using digital technologies to close the gap between tech and culture (Safian, 2017).

• Those involved in Human Resource Management (HRM) have begun capitalizing on this intersection between digital technology and the individual lives of potential, current, and former employees by utilizing a subtopic of AI called Machine Learning, which aims to convert data inputs into predictions (Agrawal, Gans, & Goldfarb, 2020).

• Social media content harvested from platforms such as Facebook, Twitter, Instagram, or LinkedIn provides insight into the lives of potential or current employees that could be useful in HRM by illumining strengths and weaknesses via posts, photos, and connections (Hartwell, 2015).

• Many have suggested that social media information could be used in the selection process to measure potentially job-related criteria, such as personality, interpersonal skills, cognitive ability, creativity, leadership, professionalism, person-organization fit, and writing ability (Brown & Vaughn, 2011; Davison, Maraist, Mailton, & Bing, 2012; Kluemper, 2013; Van Iddekinge, Lanivich, Roth, & Junco, 2016).

• In this study, we seek to further understand the use of AI-enabled machine learning on social media data in HR functions. Additionally, we provide insight into the evolving job roles of HR personnel, ethical implications of using machine learning, and future directions for application and research.

II. Recruitment and Selection

• Traditional selection procedures rely on active input (applications, interviews, etc.) from an applicant, whereas social media screening methods are passive and asynchronous (Hartwell & Campion, 2020).

• **Targeted Ads** can be displayed via machine learning to only desirable segments of a social media site’s users, such as individuals in a certain geographic location, individuals with a certain age range or level of experience, or individuals that have been determined to possess particular traits or skills.

• **Chatbots** can be employed to exchange information with job candidates when they are considering a job opportunity, follow up with individuals after they have submitted employment applications, or use calendaring software to schedule interviews with hiring managers (Kulkarni & Che, 2019).

• **Scraping** can be used to translate an individual’s social media behavior into quantitative data (Chamorro-Premuzic, 2015).

• Machine learning tactics can drastically lower the time that HR personnel spend on administrative tasks, increasing capacity for higher-level tasks.

III. Ethical Implications

• Companies are legally entitled to collect information for the purpose of performance assessment (Chamorro-Premuzic, 2015), yet social media website usage agreements often disallow mechanical data scraping from outside sources without consent. Thus, we have identified three major ethical concerns:

  1) Algorithms often use historical social media content and behavior to develop conclusions about an individual without that individual knowing it’s happening.

  2) Machine learning, by nature, is self-reinforcing; any bias that was intentionally or unintentionally coded into the original algorithm can be built upon automatically, thus strengthening the bias (Garcia, 2016).

  3) There are few legal examples of cases regarding companies using AI to monitor or evaluate employees using social media, and AI-related lawsuits are anticipated to grow rapidly in coming years (Lewis, 2020).

IV. Conclusions

• As AI becomes more commonly used, more human-like, and more intrusive, the privacy and ethical concerns that it now faces are likely to increase.

• Yet, it is not far-fetched to hypothesize that machine learning techniques will soon become commonplace in HRM due to their benefits and ability to create competitive HR departments.