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Avoiding Discrimination and Filtering of Qualified Candidates by ATS Software

Katarina Drucker

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Avoiding Discrimination and Filtering of Qualified Candidates by ATS Software

by

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A professional paper submitted in partial fulfillment
of the requirements for the

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Introduction

Applicant Tracking Systems (ATS) are used by over 90% of employers; including most Fortune 500 companies (Weber, 2012). The systems aid Human Resources departments by saving time by narrowing down and filtering candidates to a manageable size while organizing and tracking potential candidates as well as providing an easy and organized way to manage job applications (Quast, 2015, Weber, 2012).

Per Glassdoor (2016), out of the individuals that begin the application process, only half will complete the online application. Some systems utilize knockout questions to eliminate a candidate before they even hit submit (Moody, 2016). Other ATS technology will take the information provided by the applicant, “parse” and “scan” the resume for qualification information, and then rank the resume based on a process of cross-referencing that information to queries related to the job posting from the employer (Abdel-Halim, 2012; Quast, 2015; Schultz, 2016; Weber, 2012).

Of the submitted resumes, only 25% will pass the ATS screening process while the remaining 72-75% will be filtered out (Abdel-Halim, 2012, Sullivan, 2013; Tolan, 2014). Some resumes will be ranked poorly because they lack the keywords the ATS system is looking for (Tolan, 2014), and others may be disqualified if their resume was submitted in PDF format because many ATS systems cannot process the PDF document like the applicant intends for it to be read (Sullivan, 2013). Using script fonts, a font that is too large, or anything that is not considered a standard font could get a resume filtered (Amjad, 2015; Gillis, 2016). A resume with lines across the page, graphics, columns, or even too many bullet points can impact how effectively the ATS parses the resume and result in a qualified candidate being filtered out (Gillis, 2016; Moody, 2016).

Purpose

The purpose of this research paper will be to demonstrate the flaws in present-day hiring systems that may digitally eliminate or discriminate against qualified candidates.

Theoretical and Conceptual Framework

To determine the role Applicant Tracking Software plays in the Human Resources process, it was necessary to explore the history of the Human Resources profession as well as the role HR professionals play within the organization. Looking back at the largely administrative history of HR through the industrial revolution and personnel management job roles, the HR profession has transitioned into a critical role that drives an organization. Exploring the theory of key influencers such as Robert Owen, John Patterson, Max Weber, George Elton Mayo, Frederick Herzberg, and Peter Drucker provided a path to understanding the challenges and scope of Human Resource Management and Strategic Human Resource Management.

With the background and scope of the HR Profession, it became apparent that HR professionals required technology to manage their responsibilities. In review of the technology itself, it was possible to identify key issues faced by both job applicants and HR professionals. Once key issues were identified, the legal and operational repercussions helped form the analysis that would lead to recommendations to avoiding these problems in the future.

Statement of Problem

In an annual survey by Manpower Group in 2015, 32% of employers in the United States reported talent shortages. Among those that reported talent shortages 35% identified lack of applicants and 22% identified lack of experience as the top reason for these shortages. Skilled trades like bakers and chefs, sales representatives, engineers, drivers, managers, and finance staff are the top most difficult to fill positions; positions that are all crucial to the hospitality industry.

The service-oriented hospitality industry relies heavily on people, and even slight problems with finding qualified candidates can have detrimental impacts on the quality of service delivered to guests and ultimately unfavorable to the company's financial success. Since many larger hospitality companies are publically traded, the goal of the companies is to deliver the best possible operational performance to drive wealth for the company's shareholders. Operational performance is largely driven by employees, technology, and the established company processes; without the right people with the right abilities in place, hospitality companies cannot deliver favorable results to shareholders (Besma, 2014; Solnet, Kralj, & Baum, 2015).

At a cost of 20% of an annual salary (Day, 2016) or a U.S average cost of roughly \$4,000 to recruit and hire a candidate, companies spend three times more on recruitment than they do on training (Bersin by Deloitte, 2015). In Australia, the costs of replacing skilled staff are calculated to include the time spent on hiring, lost productivity, on-the-job training costs, and the gaps in productivity between the old and new employee; resulting in a minimum replacement cost of \$20,000 per new employee (Terry-Armstrong, 2015). In addition to the high cost of hiring new employees, Human Resources departments must be aware of and proactive in preventing discrimination fines and lawsuits which could cost the company millions of dollars (Mitchell & Gamlem, 2012; Smith & Mazin, 2011; Terry-Armstrong, 2015; Weiss, 2004). Yet despite high recruitment costs, talent shortages, and financial risks of accidental discrimination, on average only the top 10 of the resumes that make it past the ATS filtering will get passed down to hiring managers by the recruiter (Schultz, 2016).

Given the time and money spent on hiring, potential for financial and legal problems, and the minimal number of resumes that make their way to the hiring decision makers. it is important

to make sure that the ATS software is not unintentionally filtering out the candidates that should be at the top of the candidate list.

Limitations

There were several limitations that created challenges with the research of this subject matter. Time was a hindrance to research because it restricted the ability to conduct experiments. Access to employers and ATS providers created challenges of obtaining the most up-to-date and accurate information and insights. Lastly, previous research and overall information relating to the usage practices of ATS software was very limited and could not be explored in depth.

Definitions

- **Applicant Tracking System (ATS):** A computer software which manages the online recruitment process as well as stores and organizes the information of job applications.
- **Protected Class:** characteristics a group of people distinguished by the special characteristics that has inhibited its progress: race, color, ethnic identification, national origin, religion, sex, age, disability, and veteran status. (Weiss, 2004)
- **Discrimination:** The decisions and actions that deny individuals and protected groups access to employment, advancement, benefits, training, and compensation permitted to other people in the organization (Weiss, 2004)

PART 2

History & Role of Human Resources

Human Resources is a field of practice created by a necessity when work forces became so large, that management and administration of those people needed to be operationalized and tracked. As the field grew, so did the roles and responsibilities that those that practiced HR needed to oversee. This section will discuss the history and responsibilities of Human Resources.

Defining Human Resources (HR)

The Human Resources field has had two significant evolutions in history; the first being the transition from personnel management to the practice of Human Resource Management (HRM) and the second more recent transition from HRM, to Strategic Human Resource Management (SHRM) (Besma, 2014).

The terms Human Resources (HR), Human Resource Management (HRM), and Strategic Human Resource Management (SHRM) are inconsistent among available research because the terms are often used interchangeably. Meriam-Webster's Learners Dictionary (N.d.) defines Human Resources as "a department within an organization that deals with the people who work for that organization" as well as "a group of people who are able to do work"; both definitions are consistent among research, but are sometimes misappropriated.

The reference of HR to either a department within a company, or the actual people that are the workforce (the "human" resources of the company), can already be confusing before adding in the concepts of HRM and SHRM. HRM is also sometimes referred to a HR because it is the role of HR professionals, but HRM is the practice of managing all details, laws, and activities in and around employees. SHRM is a newer term that includes the strategic alignment of Human

Resources functions with the operational and overall strategy of the company, but is implied to as an evolved version of HRM; which may perhaps be the reason that these terms are used interchangeably

History of People Management

According to Waseem & Majid (2015), the history of Human Resource Management (HRM) started in the 18th century with community activities within tribes, such as hunting and farming. Tribes would divide roles of their members based on the skill of the individual – such as crafting tools for those better with their hands, hunting for those that were quick on their feet, or farming for others. Majority of researchers which discuss the subject however, credit the industrial revolution in the 19th century as the natural beginning of the Human Resources field.

The industrial revolution of the 19th century started near the end of the 18th century. The emergence of new technologies created factories and transformed society by moving away from farming and toward a manufacturing society. Many individuals were for the first time earning an income through employment. Employees which weren't hired for manufacturing in factories were hired for administrative work to support the factories (Brookes, 1994; Waseem & Majid, 2015). By 1930, the U.S. workforce shifted away from agriculture completely with 79% of workers employed in industrial jobs such as manufacturing, public service, mining, and office jobs (Caudron et al., 2002).

Historical Role of HR Professionals

During the Industrial Revolution, tasks that today would be described as functions of Human Resource were primarily performed by administrative staff whose advice or strategic insights were most often disregarded by management (Brookes, 1994). Factory foreman made most hiring, firing, discipline, and pay decisions surrounding employees (Caudron et al., 2002).

With many employees needed to run a factory, companies needed a more reliable and organized way to manage the large number of people. Companies began establishing personnel departments in order to create fairness, improve hiring practices, standardize job roles and pay scales, and manage general employee related matters such as company policies , employee benefits, and even unions (Caudron et al., 2002).

Personnel management began evolving into what is known as Human Resources (HR) by the end of the 19th century (Bogardus, 2007). Rather than administrators operating in personnel departments, HR professionals slowly became partners among leaders in the company (Armstrong, 2006). The stereotype of the HR executive as a “cigar-smoking labor relations guy” (Pyrrillis, 2012, p. 49) subsided as the field changed from a clerical personnel management role, to a thriving profession with specialized training and internationally accredited certifications (Armstrong, 2006).

With the 20th Century, companies began providing additional resources to their diverse workforce. Accommodations such as policies for religious observances, childcare, paid leave, part-time work or job-sharing, and even on-site meals and cafeterias were all provided by companies wanting to attract or retain quality employees. On top of quality-of-life responsibilities, HR professionals became responsible for adhering to new regulations such as health and safety requirements, environmental rules, disability and discrimination laws, and financial reporting related to employee management (Caudron et al., 2002).

The 21st Century continues to shift the role of HR professionals as technology has become more prevalent, employees are valued for their intellectual capabilities in addition to their skills, and employees are assets responsible for the future of the company rather than easily replaceable workers hired for one simple task on an assembly line (Brookes, 1994).

Influences in History

A factory owner named Robert Owen may be one of the first individuals to practice what is known today as Human Resource Management. Acquiring cotton mills in 1799, Owen didn't want to just manage cotton mills; he wanted to "introduce principles in the conduct of people" into the workplace (Encyclopedia.com). Most notably, Robert Owen introduced a "welfare to work" initiative which encompassed employee benefits such as discounts at local stores, education, healthcare, retirement benefits, insurance, and even management practices which created a better work environment for his workers (Dulebohn, Ferris, & Stodd, 1995). Although Mr. Owen's full vision encompassed additional initiatives which were never completely fulfilled, his policies and systems helped set the path for Human Resource Management.

While Robert Owen was ahead of his time with the first practice of Human Resource Management, John Patterson of Dayton Ohio is credited as starting the first personnel department. In the late 1800's, John Patterson purchased a company that made an invention called the cash register. In order to sell cash registers, Patterson started a "school" to train salespeople. His school was the first to properly train new hires by teaching "educational advertising"; a method which explains to customers why they need the product as well as the features surrounding it. In addition to forming a department to properly train his staff, Patterson began serving hot lunches for female employees after he witnessed an employee trying to heat her lunch on a radiator, transitioned to offering paid vacations and medical care, and introduced an employee suggestion system. John Patterson's personnel management efforts reduced employee absenteeism, increased employee loyalty, and developed many workplace practices which continue to be customary in the Human Resources field (Caudron et al., 2002).

After John Patterson created workplace practices including the training of employees, Max Weber introduced the standardization of job roles and company structures. Weber was a prominent German sociologist in the early 1900's who believed that formal work procedures and a clear chain of a command would benefit company performance (Terry, 2011; Waseem & Majid, 2015). Weber's management theory emphasized standardization through the need for defined job roles, clear company hierarchy, standard procedures, record keeping, and hiring employees based on specific job qualifications (Terry, 2011). The foundations of his bureaucracy-driven management style continue to be key responsibilities of Human Resources departments today.

Following the standardization of roles by Max Weber, George Elton Mayo; a professor at the Harvard Business School from 1927 to 1932 studied employee productivity. Mayo studied the impact that fatigue and routine tasks had on productivity at Chicago's Western Electric Hawthorne Works. The studies later became widely known as the Hawthorne Experiments. Mayo conducted multiple studies involving the observation of workers in a factory while introducing minor and controlled changes to the work environment. Regardless of the changes made, productivity improved. It was concluded that productivity increased because someone was paying attention to the workers and the workers felt valuable and motivated to perform. These studies set the path for a more human focused view of management (Caudron et al., 2002; Judge & Robbins, 2014).

Frederick Herzberg; a business and psychology professor as well as prominent management theory figure in the 1960's expanded on the human focused view of management that Hawthorne had explored (Graybeal, 2010). According to Herzberg, extrinsic "hygiene issues" like working conditions, salary, company policies, and supervision do not actually

motivate people but rather minimize or increase opportunity for job dissatisfaction. However, intrinsic hygiene issues like responsibility, achievement, opportunity for advancement, and recognition are the motivating job satisfiers that make workers feel happy, respected, and fulfilled through meaning and personal growth (Caudron et al., 2002; Judge & Robbins, 2014). Herzberg's theories are referred to as both "Two-Factor Theory" as well as "Motivation-Hygiene Theory" and have helped support the need for Human Resources roles to evolve away from administrative roles.

Lastly, Austrian born Peter F. Drucker who was educated as a lawyer in Vienna and England, was a prominent figure from the early to mid-20th century, until he passed in 2005. Following a move to the United States in the 1930's and the publishing of many books and articles surrounding the topic of management, he was often referred to as the "father of modern management" while he was alive. He spent most of his career studying workplace behavior of employees and believed that dedicated employees and not finances were the key to a successful company (Viega, 2005). Drucker believed in hiring people based on their strengths and led the functions of Human Resources away from primarily administrative tasks and roles when he worked at General Electric at a point in his career. His methods of transforming HR led to great success at General Electric, and changed the way other companies viewed the Human Resources field in the 1940's and beyond (Caudron et al., 2002; Viega, 2005). His belief that the success of a company is driven by dedicated employees have been proven accurate over time by the actions, ideologies, and successes of companies like Southwest Airlines, Fed Ex, Ben and Jerry's and Marriott International. Peter Drucker's management theories and beliefs that a company's competitive advantage is derived through their human resources continue to be accurate and relevant today.

Role of Human Resource Management (HRM)

The management of Human Resources includes many components that involve the company, employees, external vendors, and legal considerations. Table 1 summarizes some key areas and responsibilities of a Human Resources Department.

Table 1

Responsibilities of a Human Resource Department

Job Areas	Responsibilities
Organizational	HR policies and general procedures Company hierarchy and structure Access to management and HR support Strategy and workforce planning
Job Design	Job design, descriptions, and pay scales Job Tools and operating procedures
Hiring	Candidate recruitment and selection through various screening and interview methods Orientation, training, and On-Boarding
Employee Relations	Conflict resolution and internal complaints Mentorship and career planning Employee engagement initiatives Discipline
Administrative	Compensation, benefits, and incentives Employee appraisals Health and Safety Employee discharge Legislative / Legal

Note. Source (Parent, 2015).

Besma, (2014) specifies that the role of HRM is to ensure that the company procures, motivates, and retains the size and skill level they need to meet their workforce needs. It is an evolved concept of the personnel functions previously performed through personnel management. Unlike personnel management, HRM is a way to approach the traditional HR

functions, and consider them as interrelated components of an organization's management. This involves workforce planning through the assessment of the current workforce as well as the future needs of the company, recruitment, selection, hiring, training, and all other activities related to making sure that the employee is equipped to perform their job. According to Besma (2014), the success of HRM is tied to the following strategic goals:

- Identification of the expertise needed to satisfy customers as well as company goals, and the dedication to obtain or train such individuals.
- Investing in employees through encouraged learning such as training and learning opportunities meant to increase skills and meet the needs of the company.
- Identification, encouragement, and reward of employee behaviors that are crucial to the success of the organization.
- Employee Engagement through commitment to the company's mission and values, as well as engagement and dedication in the work that the employee does for the organization.

ASDA (2013) support Besma's description of HRM and consider HRM to be one of the four main components of an organization (the others being Finance, Marketing, and Operations). ASDA discusses the need for workforce planning. In the case study of the U.K. company, HRM was also crucial for handling turnover and company expansion. This expansion is driven by employee data and assessments relating to future projections of workforce needs and the data is instrumental in assessing that the appropriate number of workers and the necessary skills are recruited. Retirement and internal promotions are the two main reasons for turnover at ASDA; although this number is reduced greatly through an initiative to fill at least 70% of leadership vacancies by promoting internally. Company expansion is the main reason that ASDA is

extremely focused on HRM, despite recognizing that future planning is always important. For ASDA, all HRM functions come down to one key goal; current and future workforce planning in order to ensure that company needs are being met.

Terry-Armstrong, (2015) agrees that HRM is a key business function geared toward the achievement of the organization's objectives. According to the author, "Recruitment, training, performance management, rewards and the need to responsibly manage the end of the employment relationship" are the key focusses of HRM. Terry-Armstrong, (2015) uses HRM and HR interchangeably, but is consistent with the other viewpoints that that HRM is a key business function of organizations which is key for the work-life balance, motivation, satisfaction, and productivity of employees from recruitment though to company departure.

Waseem & Majid (2015) classify Human Resource Management as a "field of study" which is an evolved concept of personnel administration or personnel management. They identify HRM as a proactive approach to managing and valuing employees as company assets rather than company costs like the reactive administrative approach of personnel management of the past. According to them, HRM is practiced as a just one component of Strategic Human Resource Management.

Strategic Human Resource Management (SHRM)

While the main purpose of HRM is to hire and retain a talented and motivated workforce that meets an organization's needs, SHRM looks at the role of HRM in the scope of the company's performance (Besma, 2014). Research supports that HR professionals can have positive impacts on the success of an organization if they develop strategies and policies which complement the company's values and goals (Caldwell, Truong, Linh, & Tuan, 2011).

The goal of SHRM is to gain and maintain a competitive advantage through the company's human resources (the actual workforce) by aligning HRM initiatives with the company's corporate strategy and goals (Bal, Bozkurt, & Ertemsir, 2014; Besma, 2014; Caldwell et al., 2011; Naznin & Hussain, 2016; Sondhi & Nirmal, 2013; Storey, 1989; Waseem & Majid, 2015).

Competitive advantage is "A superiority gained by an organization when it can provide the same value as its competitors but at a lower price, or can charge higher prices by providing greater value through differentiation. Competitive advantage results from matching core competencies to the opportunities" (WebFinance Inc., 2016)

Per Besma (2014), companies are realizing that the policies of the human resources departments may have direct influence on performance, productivity, product/service quality, and financial results. SHRM recognizes that a company can be more successful if their HR practices deliver the right, motivated people that meet the needed skills, behaviors, and expertise needed by the company.

Sondhi & Nirmal, (2013) look at SHRM as a necessity to compete against the rise of technology and financial pressure on organizations. Companies must be efficient and cost sensitive more than ever before in order to succeed. Developing a strong workforce of talented, efficient, and motivated employees that drive change makes the role of Human Resources critical within an organization. Bal et al., (2014) identify the need for HR departments to be included in the top-level management of organizations as well as at all levels of management; becoming strategic partners of management and part of the overall business planning process. Waseem & Majid, (2015) also identify integration with business strategy as a key for the success of evolved HRM function.

Competitive Advantage Through People

Human Resources departments have been quantifying their activities with key performance indicators such as time-to-hire, employee productivity, and reduction of turnover for quite some time, but proving that these metrics have been a positive impact on overall business has been a challenge (Caudron et al., 2002). It is accepted throughout research that people are key assets to developing competitive advantages in a company (Bhalla, Caye, Haen, Lovich, Ong, Rajagopalan, & Sharda, 2015; Caudron et al., 2002; LeBlanc, Rich, & Mulvey, 2000). Despite this belief and select companies attempting to write off training costs as investments in the 60's and 70s, business accounting does not recognize employees as an investment (Caudron et al., 2002).

The Boston Consulting Group published a report in 2015 that found strong correlations between the strength of a company's management, and the company's financial success. Companies with the strongest leadership and talent management capabilities in the study increased their profits 1.5 times faster and their revenues 2.2 times faster than those with weaker leadership (Bhalla et al., 2015).

Rutgers University study found that companies whom employ more HR professionals, spend more in training and fill more available jobs from within are most successful. These companies recognize that people create value, and thus offer higher incentive pay (Caudron et al., 2002).

LeBlanc et al. (2000) refer to what is known as "knowledge workers" – often technology savvy professional employees that are capable of using independent thinking in the workplace. Knowledge workers are now being viewed as the new standard for efficiency and success as the workplace becomes less about action (such as manufacturing) and more about value creation

through knowledge. Although knowledge workers are most commonly considered to be middle management, employee value is often demonstrated when the company succeeds. The most common example is the association that companies make between their business performance and the actions of their top executives; even putting the profiles of their executive in their annual reports. Not only do stock prices and company earnings get associated with executives, but sales figures are tied to sales personnel, and quantifiable performance is often tied back to departments or projects. Just like production efficiency was the standard during the industrial revolution; companies in the information revolution (the term LeBlanc et al. use for present day) seek to hire people with the expectation that they will deliver value to the company.

Role of HR Professionals in Organizations

The movement from HRM to SHRM has been discussed earlier, but according to Payne (2010), this shift was not yet evident in 2010. In a mail survey of HR professionals, most HR individuals were found to be conducting transactional rather than strategic tasks. While the importance of strategic roles was rated quite highly, there appeared to be a disconnect between the self-rating of HR managers, and the external perceptions of their abilities.

In a study of Education HR professionals conducted by Tran (2015), HR practices were found to be outdated and more in line with personnel management rather than HRM or SHRM. A total of 52 Education HR job posts from a region in California were analyzed in the study. “Essential job functions” [described as “the basic job duties that an employee must be able to perform... [and that are] essential to performance” (U.S. Equal Employment Opportunity Commission., 2008, Section 5) were examined, and only 3.2% of the essential job functions were categorized as strategic compared with 94.5% of job functions that were focused on personnel

management. In the 30% of management positions, 4.94 % of roles were identified as strategic, while 89% still focused on personnel management.

In conducting a focus group of HR professionals in the same California region, Tran (2015) found that the role of education HR professionals is primarily as a ‘watchdog’ which protects the school district from fines and legal trouble, resolves employee complaints, and performs general administrative tasks and logistics. Most of the education HR professionals interviewed had fallen into the role as a promotion from a teaching position because the education system views classroom experience as a necessity to hiring other teachers.

Unlike the education industry or overall HR field, technology industries have been much more on-trend with the changes of HR. IBM for example has found SHRM extremely influential in helping drive change and lead the company forward. With 350,000 employees, the company performed need analysis and created forecasts for the people and skills necessary two and three years into the future. Through proactive planning and implementation of a recruitment and talent retention strategy, IBM was able to reduce turnover and stay on-pace with company goals and needs. (Naznin & Hussain., 2016).

Education and Certification of HR Professionals

According to the Chief People Officer at a California Software firm, a bachelor’s degree is a minimum for human resources professionals while an advanced degree offers more significant knowledge and skills foundations. Herman Aguinis, a professor at Indiana University shares the belief that advanced degrees are preferred in the HR field, but stipulates that their value is not as measureable because nobody has conducted research that has been objective enough due to challenges with access to information. While education is highly valued and an

advanced degree is preferred, on-the-job experience accumulating over years is still more valuable (Greengard, 2016).

In addition to Human Resources training programs offered through post-secondary and graduate education as well on-the-job training, there are three main organizations that provide HR Certifications – and only two that provide certifications to individuals. While certifications are available, only 12% of Human Resources Professionals in the United States actually hold one of these certifications (Greengard, 2016).

HR Certification Institute (HRCI)

The HR Certification Institute (HRCI) describes itself as the premier credentialing organization for the human resources profession (HR Certification Institute, 2016a). HRCI is a U.S. based non-profit organization that has operated on an international scale for over 40 years and is the largest of its kind in the world. The organization offers a total of seven certifications; one specializing in California, three general HR certifications for individuals at different career levels, and three specializing in Global or International scopes (HR Certification Institute, 2016a). According to Greengard (2016), 87-90% of those with HRCI Certification are employed in a full time position in the HR field as opposed to only 69% of their peers without the certification (Greengard, 2016). While there are strict requirements for work experience and education that must be met prior to completing the HRCI exam (HR Certification Institute, 2016a), experience with ATS only counts towards experience hours (HR Certification Institute, 2013) and the HRCI in no way addresses ATS outside of the experience hours.

Society of Human Resource Management

The Society for Human Resource Management is the only organization that represents Human Resources professionals on a national scale. The organization has over 15,000

members, over 200 staff members, and an annual budget of roughly \$80 Million. Although it is now the most influential HR lobbying presence, it started very small in the mid 1900's with less than 100 Director level members and a goal of advancing the Personnel Administration profession (Caudron et al., 2002).

Until May 2014, HRCI certifications were the only ones available and recommended to individuals because HRCI was heavily aligned with the Society of Human Resource Management. Following a dissolved partnership in May 2014, the Society of Human Resource Management began offering two certifications independent of HRCI; one for HR professionals in the beginning stages of their careers, and one for senior professionals which have at least six years of Human Resources experience (Greengard, 2016).

Top Employers Institute Certification

Unlike the Society of Human Resources or HRCI, the Top Employers Institute certifies organizations rather than individuals. The Institute has very strict standards and will do a thorough evaluation of the company's HRM practices as well as conditions for employees at the company prior to certification. Company employees must participate in an annual survey, and based on the results of the survey, the company evaluation conducted, and comparison to worldwide industry averages, employers will be certified if they meet the necessary threshold required for certification (Top-Employers.com). While this certification is not a depiction of the effectiveness of the HR technology being used, it is an overall standard that identifies the certified companies as excelling in HR as well as being desirable companies to work for.

Certification Benefits

A joint report published by the HR Certification Institute and the Top Employers Institute in March 2016 found strong correlations between business performance and HR certification.

Companies with Top Employers Institute certification compare significantly well in terms of industry averages across nine categories; workforce planning, talent strategy, employee onboarding, training and development, performance management, compensation and benefits, company culture, career growth and development, and leadership development. Further, individuals certified with HRCI demonstrated better judgment, application of best practices, and a strategic way of thinking in relation to HR best practices, and the organization (HR Certification Institute, 2016b). This report is an indication that although certification does not necessarily ensure success in specific areas, those that are certified are better rounded and more versed to handle diverse issues within the scope of Human Resources.

Workforce Planning in Hospitality

In the hospitality industry, workforce planning is crucial in order to meet seasonal demands as well as accommodate large groups and special events. According to Saad (2013), workforce planning is not as commonly practiced as it should be in the hospitality industry because managers do not realize the advantages that can be gained through adequate planning and are rather focused on their day-to-day tasks. While workforce planning nurtures and coaches employees towards success in order to gain the most skilled and dedicated employees, the hospitality industry regards line level employees as somewhat replaceable and very few employers provide a clear career path in order to retain employees for the long-term. This is often evident in examples of inadequate training and high turnover rates.

In some cities, workforce planning is a real challenge due to economic issues. For example, due to Iowa's low unemployment rates, growing restaurant industry, and roughly 1600 new service industry jobs in the Des Moines area in 2016, many employers have hired anyone they could just to fill openings. Jessica Dunker, the President and CEO of the Iowa Restaurant

Association discussed some of the challenges the Des Moines hospitality industry faced in the weeks prior to the NCAA Basketball tournament called March Madness. As a short-term solution to fill staffing shortages, many restaurant owners brought in family to work during the month of March when the Basketball tournament brought thousands of people to the city. The restaurants kept all staff on-call so that they could call them in if other staff members got sick or did not show up for their shifts (Oldach, 2016). Workforce planning for the future is extremely difficult when employers are competing to maintain the minimum workforce necessary to operate businesses with Iowa's limited availability of candidates due to economic conditions.

Nashville Tennessee has a growing staffing shortage similar to Iowa's. Many major brands are opening new locations in Nashville, and local food outlets are expanding into larger locations. While there are people moving to Nashville for the new jobs, the majority of Nashville restaurant managers have trouble finding skilled employees to fill their vacancies. One local solution to the staffing problem was the creation of Nashville Hospitality Professionals; a hospitality industry Facebook group. The initial goal of the Facebook group was to help Chefs and General Managers find staff, but the group has since grown to become a networking and communication tool for the local hospitality industry (Galzin & Galzin, 2016). While such networking resources assist local businesses, major chains expanding into Nashville will need to compete with efficient word-of-mouth hiring of local employers or find alternative hiring solutions.

Cincinnati Ohio has taken their staffing shortage a step further by joining Florida and Louisiana in creating an educational initiative. In Cincinnati, the tourism industry of 24 Million visitors is growing rapidly as the city adds more hotel rooms and grows their convention business. While 1 in 14 jobs are in the tourism industry with a total of 74,000 tourism jobs in and

around Cincinnati, companies are having trouble filling tourism-related job openings with qualified candidates. According to Jason Dunn, VP of Multicultural and Community Development at the Cincinnati Convention and Visitors Bureau (CVB), one of the largest barriers to filling job opening is the impression that the jobs are low paying, front-line jobs without any professional opportunities. As a solution to the labor shortage, the CVB is starting an initiative that teaches students starting from middle school about the professional opportunities in hospitality through integration with the existing school curriculums (Carpenter, 2016). While a city-wide educational initiative to encourage the future workforce to work in hospitality may be effective, employers must still find solutions for the current staffing shortages.

HR Trends

In addition to the evolving description of Human Resources Management, variations in in the roles and education of HR professionals, and industry specific challenges that impact workforce planning, HR professionals must also be aware of trends that impact not just the employees, but also the customers that the employees serve.

Decentralizing of HR

With SHRM growing in prominence, traditional transactional HR tasks are being passed on to line-level supervisors and managers (Naznin & Hussain., 2016; Solnet et al., 2015). While on one hand, passing on tasks to line managers empowers those managers, creates teamwork, and builds a shared partnership between them and HR, on the other hand this can result in too much responsibility for line managers that creates an operational imbalance. Depending on how HR tasks are interpreted and handled by line managers, there is potential for both employees as well as customers to be on the receiving end of unfavorable treatment or priority due to these

added tasks. If the passing on of tasks to line managers is not properly explained or handled effectively, the HR responsibilities can be misunderstood or seen as inappropriate rather than empowering (Naznin & Hussain., 2016). Solnet et al. (2015) question if the decentralization of HR is effective, or if those that are given the tasks formerly overseen by HR simply perform the most pressing activity first without any regard for the strategy or long-term planning of the HR department. The hospitality industry is a perfect example of this as it is a labor-intensive industry with the costs of payroll consistently being under scrutiny. If line managers are empowered to offer raises or allow for overtime without understanding how their actions impact the strategy and budgets of the HR department, their actions can be counterproductive to the overall goals of the company. As HR tasks are passed on to line level managers, managers should be trained and coached on the overall strategies of the organization and HR department. In addition, companies need to evaluate which tasks to pass on to managers as there could be negative consequences if certain responsibilities (like recruitment) are not done effectively due to a need to balance operational and Human Resources tasks. (Naznin & Hussain., 2016)

People First

Many customer focused companies have undertaken a “people first” outlook in the way they do business. In line with the management theories of Peter Drucker, Southwest Airlines considers their employees their greatest strength and competitive advantage (Caudron et al., 2002; Solnet et al., 2015). Ben and Jerry’s ice cream company began a work culture of “fun” in 1988 and has seen success through the quality of work and service their staff provide to their customers (Caudron et al., 2002). FedEx and Marriott both have similar corporate philosophies that taking care of their employees will result in those employees providing great service to their customers; leading to customer loyalty for Marriott, and company profits for FedEx (Solnet et

al., 2015). Southwest Airlines, Ben and Jerry's, Marriott, and FedEx have all seen proof that providing a great workplace for employees results in financial success and low staff turnover.

The Miami Beach Fontainebleau Hotel is another hospitality company that has taken on workplace culture in order to retain and attract skilled employees. The hotel is open 24/7 and has a staff of 2,400 employees whom get to contribute ideas to their workplace perks in an annual poll. In addition to free meals, staff members can participate in on-site meditation, take classes on a wide range of topics that are unrelated to their jobs, or even take advantage of random perks such as free bus pass day in the cafeteria – an initiative providing employees with a get a bus pass for a month of free bus rides. According to the Fontainebleau's VP of HR, happy and engaged employees are more likely to stay with the company. Many Florida based hospitality companies which compete with one another for great staff parallel this belief by offering similar perks and classes to their employees as well (Goodman, 2016).

Generational and Technology Needs

Solnet, Baum, Robinson, & Lockstone-Binney (2016) discuss the economic and social changes that will be prevalent in coming years in hospitality settings. Due to history's influence on generational trends, the near future will see a much larger population of elderly consumers than previously experienced. These consumers will have different product needs and expectation of personalized and attentive service that is not technology based. At the same time, economic challenges will keep older workers in employment with many working across service and hospitality industries. Employers will need to have adequate workplace accommodations for older workers as well as customers (Solnet et al., 2016).

While service will need to be personalized and attentive to the individual, so will the customer expectation of their experiences. Customized customer experiences will be reliant on

the intelligence of technology, and the workplace will require skilled workers that can both navigate personal experiences with social intelligence, and understand and be skilled with technology. The role of individuals in hotel and hospitality settings will change and so may the job requirements as technology continues to gain prominence in the workplace (Solnet et al., 2015).

Human Resource Management Systems (HRMS)

Recently, HR departments have had more pressure on them than ever before as they need to provide the most efficient way to deliver the most skilled staff. While historically HR functions have been largely bureaucratic, today's HR departments are expected to lead change, provide support to management at all levels, and demonstrate a return on investment for the company (Recardo, 2016).

With the need to perform a variety of functions under the Human Resources umbrella, HR professionals require technology to enable them to perform their duties. Human Resource Management Systems (HRMS) are the perfect and largest technology tools for this purpose. HRMS systems can generate much needed reports, and are used to manage everything from the information, attendance, and performance of current employees, to tasks such as staff scheduling, training, communication, as well as a variety of other functions (Hu, 2015; Zielinski, 2016).

The technology which assists HR professionals in managing their hiring is called Applicant Tracking Software (ATS) and it is commonly offered as one component of a larger HRMS system (Gillis, 2016; Mackelden, 2016). In 2012, Starbucks Corp. had roughly 7.6 Million people apply for approximately 65,000 total jobs. Procter & Gamble attracted nearly one Million applicants for 2,000 jobs with an average of 500 applicants per job (Weber, 2012). Recruiters need a way to keep track of the flow of applications, and the best way to do this is

through the ATS component of an HRMS. An ATS helps recruiters filter candidates in a manageable way while automating the hiring process and cutting costs by reducing the time spent on each applicant by the HR department (Gillis, 2016; Mackelden, 2016).

While ATS systems help manage applicants, they are just one part of a larger Human Resources Management System and not necessarily a significant consideration in the selection of the HRMS. For example, the ability to run reports and gather specific types of data, or the ability to automate certain tasks may be the most valuable features of an HRMS for a company (Gale, 2001). Additionally, certain HRMS providers may offer a solution a company needs (such as ADP for payroll), but not offer an ATS of their own (Mongeluzo, 2013). If a provider of choice has ATS providers that work best with their system, an ATS may be selected based on convenience rather than functionality needs.

HRMS: HR or IT

With older HRMS systems, there was often disagreement on which department should oversee the HRMS system. While an HRMS is software that is mainly utilized by HR, it still requires information technology (IT) knowledge to properly maintain the data backups that should be managed by someone with technology expertise. HRMS software was either maintained by HR people that did not know IT, or IT people that did not have HR expertise. There are newer internet based systems which require significantly less maintenance by IT as well as additional features which save the HR department time, but this does create additional concerns such as employee privacy and digital security that many companies may see as problematic. For companies that do implement web based HRMS systems, the role of HR professionals often changes from a transactional administrative role, to a trouble-shooting change management role which is more aligned with principles of SHRM (Gale, 2001).

Selection of HRMS

Billions of dollars are spent each year on HRMS systems, but many of them are over 7 years old and in many ways outdated both from security and performance standpoints (Hu, 2015). HRMS systems need to be re-evaluated approximately every 2 years, and new systems should be selected carefully with specific company needs in mind so that they can address the nuances of the company (Zielinski, 2016). Selection of HRMS may include a cross-functional team of executives and key department contacts from finance, HR, and IT (Gale, 2001). The choice in HRMS may be based on the strongest opinion from one side of the business rather than the entire team. For example, if a proposed system is more compatible with the one that is in place compared to the compatibility of the alternatives, that system could be recommended by IT and then favored by finance because it will be easier and more cost effective to implement. If all the HRMS systems being considered cover the basic needs of the company, but one is easier for a key decision maker to use and understand, that system may be selected over a system that is harder to understand by the executive, but more practical for the company's needs.

Although HRMS can be used for specific reasons, the ATS can also be the key attraction to HRMS. In 2012 the CEO of Taleo (a major HRMS provider now known as Oracle Talent Cloud), revealed that 85% of their customers used Taleo for recruitment. Even though Taleo is extremely popular as an ATS, the company and software has been criticized for the length of time job applicants had to spend to apply to positions due to the length of the online application. (Mongeluzo, 2013).

Recruiting With ATS

Majority of Fortune 500 companies rely on ATS systems for their hiring (Schultz, 2016; Weber, 2012). As previously mentioned, ATS helps HR departments manage applicants and

save time. Primarily, this is done by using the software to reduce the number of applicants to a manageable size by narrowing down qualified applicants, and filtering out the least qualified ones (Mackelden, 2016; Moore, 2012; Quast, 2015; Weber, 2012).

While ATS may be widely used, there is a significant disconnect between HR professionals using the software, and those applying for jobs. According to an article published by CIO Magazine, 94% of those using an ATS for hiring believe that the ATS improves the hiring process. At the same time, most applicants don't think that their resume is ever viewed by a human being. This is extremely frustrating because the application process itself is redundant, tedious and usually filled with technical glitches (Florentine, 2016). Many candidates have challenges uploading resumes or filling out long application forms. It is common for 60-75% of applicants to abandon an online application; especially if applicants attempt to apply from a mobile device such as a smartphone or tablet. Studies show that most candidates are not willing to complete an application that takes longer than 15 minutes. This is despite most HR professionals interviewed by CareerBuilder in 2014 stating that their application process was approximately 20 minutes in length; of which half felt that longer applications were better (Zielinski, 2015).

The online application process is widely referred to as a "black hole" by business publications such as US News, The Wall Street Journal, Forbes, Mashable, and CBS Moneywatch (Fertig, 2013; Lauby, 2012; Lucas, 2013; Smith, 2014; Weber, 2012). The reason for this is because applicants often apply for jobs, and never hear anything from them again (Smith, 2014). Most resumes enter the "black hole" and are "never to be seen by anyone again" (Lauby, 2012, Para. 3); they are filtered through the ATS system and may never be acknowledged even if they appear to be absolutely perfect for the role (Lucas, 2013).

How Does ATS Work?

The initial filtering of applicants is done by the ATS rather than by a human being (Gillis, 2016; Moore, 2012; Quast, 2015; Schultz, 2016). Most established Applicant Tracking Systems filter out candidates by reading resumes (a process called parsing) and comparing the parsed resumes and applications to the job description and/or key questions set up in the job posting. This is primarily done in two ways; either through keywords, or knock-out questions (Mackelden, 2016; Moore, 2012; Quast, 2015; Schultz, 2016; Weber, 2012). With keywords, the system looks for words or phrases in the job description that match the same words and phrases as in an application or resume, and then assigns a score to the candidate (Abdel-Halim, 2012; Gillis, 2016; Moody, 2016; Moore, 2012). Knock-out questions are questions that are set up by the Human Resources department that must be answered by the candidate in order to submit an application. The candidate will be ranked or eliminated based on how they answer the knock-out questions (Moody, 2016). Common practice is for the HR professional to review the candidates with the top scores or at the top of the list after the ATS has ranked them (Abdel-Halim, 2012; Quast, 2015).

It is important to note that not all Applicant Tracking Systems parse or filter resumes. Some providers rate applicants solely based on the knock-out questions established by the Human Resources professional at the time of the job posting set-up, while others enable the company to decide how they would like the filtering and candidate ranking to be set up. Select ATS providers do not rank applicants themselves, but rather provide a system that allows recruiters very easily preview and either reject or shortlist an applicant based on a concise display of information (Ascendify; iCIMS; Jobvite; SilkRoad; SmartRecruiters; Workday,

personal communication, Nov 15, 2016).

Keyword Matching

ATS is advanced enough to find former employers, past schools, the amount of work experience a candidate has, and smart enough to avoid random keywords that are placed in a resume to improve a candidate's chances of being ranked higher (Moore, 2012; Weber, 2012). Most ATS providers even enable HR professionals to search a pool of candidates for a selection of keywords and only present the resumes which match those keywords (Ascendify; iCIMS; Jobvite; SilkRoad; SmartRecruiters; Workday, personal communication, Nov 15, 2016).

However, there is a common inconsistency between the words used in job postings, and the words used in the application because the intent of the words is different (Humphrey, 2014). Although the ATS is intelligent enough to learn the common keywords a company looks for (Schultz, 2016), companies should test the success of both their ATS and their recruiting process by running the resumes of their top employees against the job postings of similar job openings to ensure the best individuals are not being rejected (Florentine, S, CIO, 2016).

Informal Hiring

It is estimated that approximately 50% of all jobs are filled informally rather than through the traditional method of posting a job and reviewing applicants (Weber & Kwoh, 2013). Some jobs are not advertised, others are created with an internal candidate already in mind, and others are posted only after the job has already been filled (Thompson, 2016; Weber & Kwoh, 2013).

Phantom Jobs

There is no law that requires non-government contractors or employers to post job openings, but many HR departments require all their job openings to be listed as a formality in an initiative to make hiring transparent. This is most commonly referred to as Phantom Jobs;

jobs which are being advertised, but are already filled before applicants even have a chance to apply. Unfortunately, this practice drains time and confidence from job applicants whom apply for these phantom jobs when they never have a chance of getting hired for that position (Kolakowski, 2015; Kolakowski, 2015; Weber & Kwoh, 2013).

For Audio Video (AV) recruiter Hann (2016), the biggest challenge is to find qualified candidates in the specialized field. Being creative in reaching out to potential candidates is often necessary to fill an open position. According to Hann (2016), for many employers, being proactive in seeking out candidates means advertising heavily in order to attract new candidates. This strategy is often tied to an advertising quota, and recruiters duplicate existing job postings to attract a wider pool of candidates with minimal effort even if there are no job openings that match the posted job description (Hann, 2016).

According to Kolakowski (2015), there are sometimes reasonable explanations for phantom job postings. In some cases the job postings are simply not taken down after a candidate is hired, while in other cases job postings cease to exist because the company had multiple job postings within the company that were competing for the same limited hiring budget. While in other cases, applicants may be not be applying for an actual job, but still may be considered as part of a resume pool of future candidates when the company needs to fill jobs in a timely manner (Kolakowski, 2015). Proactively hiring for future needs through phantom job postings may be part of an SHRM strategy to prepare for a major project, event, or seasonality in the case of the hospitality industry.

Hidden Jobs through Referrals / Word of Mouth

Weber & Kwoh (2013) wrote about Mr. Nottingham, a co-president of a Cleveland based design firm. While Mr. Nottingham would have been looking to hire eventually, he created a job

opening at his company after being introduced to a talented candidate which was an alum of a local design school that was actively seeking employment. Rather than posting a position online in the future, he created a job opening because he did not want to miss out on the candidate. This is actually quite a common practice even with larger companies when a candidate is considered too valuable to lose (Weber & Kwoh, 2013).

Per 64% of recruiters in the United Kingdom, the best candidates are hired through referrals rather than blind applications (Mackelden,2016). Research backed business articles from US News, CBS Moneywatch, Forbes, and Wall Street Journal all echo that referrals are more effective, and recommend that job seekers focus on networking rather than applying for jobs online (Fertig, 2013; Lucas, 2013; Quast, 2015, Smith, 2014; Weber, 2012). Career coaches and HR industry insiders recommend that candidates find the hiring manager for positions of interest and connect with that person rather than an HR person at the company (Fertig, 2013; Lucas, 2013; Smith, 2014). When networking directly with the hiring manager is not an option, referrals from others in the company are also highly regarded (Fertig, 2013; Weber, 2012).

Despite candidates being considered for jobs through informal channels, they still need to apply through the ATS. Since HRMS is prominently relied on for HR activities by many companies, anyone using an ATS will require all applicants to fill out an application through the ATS even if they are already hired. In seeking out referrals, candidates should still apply for a position they want online and let their contacts know that they have applied so that the contact could ask the HR department to review the candidate (Fertig, 2013; Lucas, 2013; Smith, 2014).

Legal Considerations

There are some legal considerations that should be addressed by those using an ATS or HRMS to track candidates. According to Hu, (2016), if a company encounters a potential

lawsuit; a litigation hold will require the company to keep all data that may be relevant to the lawsuit; including electronic data in the HRMS or ATS system if it could be relevant. This means that nothing can be deleted; including all automatic data removals which are common in such systems. Not only will the company need to provide information on the HRMS layout and possibly need to find a way to provide the data, but the backlog in data that may be created can cause operational delays in the system (Hu, 2016).

Historical data in HRMS and ATS systems could also be a problem as companies update or upgrade to newer systems. In 2015, a judge ordered Merck & Co to provide all data for their sales representatives from 2009 to 2015. The lawsuit was a \$250 Million class-action lawsuit for gender discrimination. Not only did the company have to supply all the information, but they had to figure out how to provide the information from the HRMS that was used in 2009 before Merck & Co. switched their system in 2010 (Hu, 2016).

Since the HRMS links everything that can concern the company's employees, anything from training, to communication, to employee performance or dismissal can cause the HRMS system to become part of a lawsuit. When hiring new employees, communicating with existing employees, asking for information in the recruitment process, or even conducting performance appraisals, all interactions need to be gender neutral, inclusive of race, ethnicity, age, disability, and even genetics and everything should be accurately documented. Similarly, all protected classes within an organization need to be considered prior to conducting layoffs (Donham, 2014). In anticipation for potential lawsuits, HRMS should be compliant with all laws, only request voluntary equal opportunity information, and capable of producing reports which state the hiring processes for each job, the reason each applicant was rejected, and why individuals were let go (Hu, 2015).

Discrimination as It Relates to Hiring

It was only in the mid to late 1960's that women and minorities started entering the workforce in the United States. At the time, many laws that are now considered basic ideas were still being formulated. Things like child labor, minimum wage, and discrimination laws were just beginning to become key consideration in the Human Resources or Personnel Management field. Unlike the 1960's, today there are many federal laws that protect the rights of workers that fall under the responsibilities of the HR department (Caudron et al., 2002).

The first discrimination Act in the United States was introduced 1964. In the early 1990's there were 9,936 workplace discrimination lawsuits in the United States. By the end of the 1990's, this amount tripled, to 21,540 per year (Weiss, 2004). By 2009, Over 93,000 discrimination charges were filed. These charges cost companies hundreds of millions of dollars in settlement costs and lawsuits (Smith & Mazin, 2011). In a 1999 discrimination lawsuit, the Boeing Company paid \$6.5 million to 3,600 employees, spent \$4.05 million in legal fees, and was mandated to invest \$3.6 million on workplace diversity. A 2000 discrimination lawsuit against The Federal Deposit Insurance Corporation resulted in a \$14 million win for 3,000 African-American employees that had been employed by the company (Weiss, 2004). Although many companies are aware of the expenses tied to discrimination, many discrimination charges occur because the discrimination is often unintentional as a result of company's policy or practice (Smith & Mazin, 2011; Mitchell & Gamlem, 2012).

The Equal Employment Opportunity Commission (EEOC) is the government agency that oversees and enforces cases of employment and recruitment related discrimination. This includes all cases of discrimination in relation to race, color, religion, gender (including sexual orientation, self-identification, and pregnancy), national origin, disability, age, and genetic

information. In respect to recruitment, this includes any tests or questions that may disqualify the applicant based on race, color, religion, gender, national origin, disability, or genetics. All interview related tests or questions that may reveal an association to one of these protected classes must be specific to the job and essential to determining if the applicant is qualified for the job. If a question is remotely related to the candidate’s association to one of these groups, it must be proven that it is essential to the candidate’s ability to do the job or else it is discriminatory (Equal Employment Opportunity Commission, Application & Hiring; Equal Employment Opportunity Commission, Pre-Employment Inquiries; Smith & Mazin, 2011).

Timeline of Key U.S. Discrimination Law Moments

Table 2 demonstrates a timeline of landmark moments in the history of U.S. employment and recruitment discrimination laws.

Table 2

US Employment and Recruitment Discrimination Laws

Law	Explanation
Title VII of Civil Rights Act of 1964	Created for employment decisions and job protection of minorities by prohibiting discrimination based on race, color, religion, gender, or national origin (Caudron et al., 2002; Mitchell & Gamlem, 2012; Smith & Mazin, 2011; Weiss, 2004)
Equal Pay Act of 1963	Legislation acknowledging that men and women performing the same work in similar work conditions for the same employer should receive the same pay (Mitchell & Gamlem, 2012; Smith & Mazin, 2011)
Age Discrimination in Employment Act of 1967 (ADEA)	Legislation preventing discrimination against employees aged of 40 years or older (Smith & Mazin, 2011; Mitchell & Gamlem, 2012)
1971 – Griggs vs. Duke Power	Supreme court case that set a precedent for unintentional discrimination when Willie Griggs was turned down for a promotion because he lacked a high school education and did

Law	Explanation
1972 – Title VII amended	not test well on two tests at the time of hire. Since neither the tests nor a high school education were relevant to the promotion, the requirements were found had a negative impact because it had a discriminatory effect on protected classes even though there was no intention to discriminate. (Caudron et al., 2002; Mitchell & Gamlem, 2012)
Pregnancy Discrimination Act of 1978	Equal Employment Opportunity Commission recognized as its own enforcement authority that could file its own lawsuits. (Caudron et al., 2002)
Immigration Reform and Control Act of 1986	An amendment to Title VII to include discrimination based on pregnancy or childbirth to be treated as a short-term disability (Mitchell & Gamlem, 2012)
1989 – U.S. Supreme Court Decision	Legislation requiring employers to only hire individuals which have the legal right to work in the United States. (Mitchell & Gamlem, 2012; Smith & Mazin, 2011)
1990 – Americans with Disabilities (ADA) Act	Case 110 S. Ct. 38 established the need to prove an employer’s intent to discriminate in order to win a discrimination lawsuit. Proving that the employer should have anticipated the consequences of their actions on the protected class and demonstrated a disregard for the consequences is sufficient proof of intent to discriminate. (Weiss, 2004)
Civil Rights Act of 1991	Legislation protecting individuals with disabilities that are qualified to hold the position (Caudron et al., 2002; Mitchell & Gamlem, 2012; Smith & Mazin, 2011; Weiss, 2004)
ADA Amendments Act of 2008	An amendment to Title VII to include jury trials and more serious damages to the employer. (Caudron et al., 2002; Mitchell & Gamlem, 2012)
2008 – Genetic Information Nondiscrimination Act	Altered the definition of disability to be interpreted more broadly (Smith & Mazin, 2011)
2009 – Lily Ledbetter Fair Pay Act	Legislation protecting genetic information of applicants and employees (Mitchell & Gamlem, 2012; Smith & Mazin, 2011)
	Changed the terms for Equal Pay practice victims to file lawsuits within 180 days of each discriminatory paycheck as opposed to the initial date of compensation agreement (Mitchell & Gamlem, 2012; Smith & Mazin, 2011)

Key U.S. Discrimination Acts Utilized in Hiring

There are many laws that should be taken into consideration with every hiring attempt and decision. The following five Acts are especially important for Human Resources professionals that conduct hiring.

Title VII of Civil Rights Act of 1964

Title VII was created to protect minorities from discriminatory employment and workplace decisions relating to race, color, religion, gender, or national origin (Caudron et al., 2002; Mitchell & Gamlem, 2012; Smith & Mazin, 2011; Weiss, 2004). Minorities became considered as protected classes that had the right to file lawsuits as long as they were being discriminated against by an employer which had 15 or more employees (Caudron et al., 2002; Mitchell & Gamlem, 2012; Smith & Mazin, 2011). In 1991, an amendment was made to Title VII to include jury trials and more serious penalties to the employer. (Caudron et al., 2002; Mitchell & Gamlem, 2012)

As a rule, if a specific group is impacted by a business decision based on any characteristics or assumptions about the group, the company is likely guilty of discrimination unless it can be justified by a logical business decision for which reasonable accommodation cannot be made (Smith & Mazin, 2011).

Examples:

- **Race or Color:** A company may be guilty of discrimination if it implements a no beard policy because African-Americans are prone to shaving bumps. However, if the no beard policy is in place due to a legitimate business reason such as local health codes for restaurant workers, it is not a discriminatory policy. (Smith & Mazin, 2011)

- **Religion:** Employers may be guilty of discrimination if they are not willing to accommodate religious practices unless the accommodation of the practice would cause an undue hardship to the company (Smith & Mazin, 2011). Disqualifying an applicant because they practice Sabbath on a specific day is discriminatory if working on that day is not a necessity for the job. However, accommodating an employee that practices Sabbath on the busy day of the only two days a business such as a nightclub is open may cause undue hardship for the business. (Weiss, 2004).
- **Gender:** Declining to hire a pregnant female would be considered discrimination due to gender. However, declining to hire a pregnant woman for a seasonal position because she cannot work during the peak days that other seasonal employees are being hired for due to her pregnancy is not discriminatory if working on those days is a necessity for the job.
- **National Origin:** Treating someone favorably or less favorably due to their national origin is considered discriminatory. However, it is not discriminatory if the individual has a foreign accent that interferes with effective communication which is a necessity for the job. (Smith & Mazin, 2011)

Equal Pay Act of 1963 & Lily Ledbetter Fair Pay Act

The Equal Pay Act of 1963 addresses differences in compensation based on gender. Men and women performing the same work in similar work conditions for the same employer should receive the same pay unless seniority, job difficulty, job accountability, or workplace environments are different. If two candidates with the same job are required to perform different tasks with different difficulty levels, the job is no longer considered to be the same job. If the jobs are in different work environments with one environment being more hazardous (such as a nurse working with violent patients rather the nurse working with children), or if the jobs are in

two different cities with two different costs-of-living, the work environments result in different work conditions. However, if one candidate possesses skills in-excess of the skills required for the job, the candidate should not be compensated in any differently unless those skills are tied into their seniority within the company (Mitchell & Gamlem, 2012; Smith & Mazin, 2011).

While initially victims had to file their lawsuits within 180 days of their compensation agreement, the Lily Ledbetter Fair Pay Act of 2009 amended the law to allow victims to file within 180 days of the last discriminatory paycheck (Mitchell & Gamlem, 2012; Smith & Mazin, 2011).

Immigration Reform and Control Act of 1986

While Title VII protects individuals from discrimination based on national origin (which includes citizenship), the Immigration Reform and Control Act of 1986 requires employers to only hire individuals whom have the legal right to work in the United States. Hired employees must fill out the top of an I-9 form on the first day of work and provide proof of identity and work eligibility. If the proof of work eligibility (such as a Social Security Number) is not available, the employee must provide a receipt for the application of the documentation within 3 days, and the actual document within 90 days of employment (Mitchell & Gamlem, 2012; Smith & Mazin, 2011).

While the Immigration Reform and Control Act simply ensures that employers are hiring individuals with the legal right to work in the United States, the act does not require that individuals have their physical authorization documents until 90 days after beginning employment. If an employer requires a physical document or a document number rather than a receipt for the application of the document, the employer is still participating in discrimination based on national origin by treating that individual less favorably than a U.S. Citizen that has all

their documents prior to applying for the position. (Mitchell & Gamlem, 2012; Smith & Mazin, 2011).

Americans with Disabilities (ADA) Act of 1990

The Americans with Disabilities (ADA) act protects individuals with disabilities that are qualified to hold a position at a company with 15 or more employees (Caudron et al., 2002; Mitchell & Gamlem, 2012; Smith & Mazin, 2011; Weiss, 2004). The ADA Act requires the employer to provide reasonable accommodation in order for the disabled individual to perform the job, as long as the accommodation does not cause unreasonable difficulty or expense (Equal Employment Opportunity Commission, Pre-Employment Inquiries). The ADA Act also applies to non-disabled employees if they are being impacted due to their relationship with someone that is disabled (Smith & Mazin, 2011). For example, an employer must provide accommodation for an employee that is responsible for taking a disabled relative to their weekly appointments or issuing medication at a certain time as long as the accommodation does not create unreasonable difficulty or expense to the employer.

In 2008 the Act was amended to define a disability more broadly than previous. Since 2008, a disability is defined as “a physical or mental impairment that limits major life activities” (Smith & Mazin, 2011, P.165) which also includes bodily functions, immune system, circulation, bladder, neurological, digestive, or respiratory problems, and any other impairments that are not temporary or minor. For example, while a broken arm is a temporary impairment and does not qualify as a disability, a learning disability which is permanent in nature and may require extra training prior to an employee being able to adequately perform the job is considered a disability as per the ADA act.

While the ADA act has improved the integration of disabled individuals in the workplace, approximately 66% of those with disabilities in the United States are still unemployed and those that are employed generally make less than their non-disabled colleagues (Caudron et al., 2002).

Genetic Information Nondiscrimination Act of 2008

The Genetic Information Nondiscrimination Act of 2008 protects applicants and employees from having family history and genetic information used against them. Employers with 15 or more employees cannot purchase, require, or inquire about genetic information. Inquiring into past or current medical conditions, family history, blood type, allergies, or anything else that relates to an individual's genetics is considered discriminatory (Mitchell & Gamlem, 2012; Smith & Mazin, 2011).

Despite the variations of acts made to protect protected classes from historical discriminations, discrimination is still very present in the 21st Century. It is illegal to discriminate based on any characteristic that is specific to a protected class unless it is essential to the job (such as in the film industry where very specific individuals are required to fill very specific roles). However, Weiss (2004) demonstrates that women have made it past the glass ceiling of the corporate world but they continue to struggle obtaining fast-track roles after graduation from college. Similarly, African-American and Latino men stagnate behind white men, women, and all other racial minorities with the obtainment of high paying jobs, apprenticeships, and skilled positions. Despite all laws and attempts to limit discrimination, individuals are still involved with hiring, promotion, and treatment of employees. Independent of discrimination law awareness, individuals are prone to prejudice (pre-existing opinions and feelings formed about a group of people based on specific characteristics) and this will continue to impact HR decisions (Weiss, 2004). The only way for companies to avoid the growing number of discrimination charges

throughout the United States is by evaluating the business reasons behind their employment and workplace policies and practices to ensure that they do not unintentionally discriminate against a protected class of people (Smith & Mazin, 2011).

The Human Factor Of ATS

With the frequency of informal hiring, there are strong arguments for ATS to be used in order to protect companies from discrimination lawsuits. In Case No. 14-CV-2997 (EEOC v. ACM Services), the court ordered the defendant to implement an ATS in order to document their efforts of recruiting African American and female candidates. ACM Services was found guilty of gender and race discrimination because the company had recruited exclusively through company referrals and could not prove that their hiring of field workers was inclusive of gender and race (Maatman, 2015).

Martinez (2014) supports that individuals use personal judgments to pre-screen applicants which could result in unintentional discrimination. Those that evaluate candidates utilize information such as education and work experience, and classify the individual as either qualified or unqualified. In addition, an applicant may be considered overqualified if they possess a higher education than necessary for the job, and may be eliminated despite being a desirable candidate for a position with opportunities for advancement.

Over-qualification in terms of Human Resources is possession of job qualifications in excess of the job requirements (Erdogan, Bauer, Peiro, & Truxillo 2011). Over-qualification is a key issue across HR literature because approximately half of U.S. employees that possess a degree are overqualified for their jobs (Marklein, 2013). While many HR professionals interpret overqualified individuals as incompatible to the job they are applying for (Worthington, 2002),

others interpret over-qualification as a positive; especially when it comes to over-educated individuals because they are easier to train (Erdogan et al., 2011).

Neither ATS programming nor individual biases of HR professionals account for candidates that intentionally apply for jobs for which they are overqualified. Lifestyle choices, values, and life stage may create a desire for an individual to perform a different job than may be expected. Students completing graduate school may choose to work at an easier job while they focus on school. Parents with children or children with elderly parents may leave full time jobs to take care of their families. Even extremely educated individuals may choose to apply for part-time positions after finding they have too much spare time after retiring from their careers (Martinez, 2014).

An ATS checks to ensure candidates have the basic qualifications to do the job they are applying for (Yeager, 2016), but the selection of candidates is still up to the Human Resources department. The job posting is set up by a HR professional and can be set up to overlook certain candidates. In the case of a woman that had 8 years of experience in academic advising of graduate students, she learned that she was rejected for a job because the job asked for 5 years of experience with undergraduate students (Lucas, 2013). An overqualified candidate such as the woman with 3 extra years of experience in a very similar role can be eliminated from a job due to the bias or lack of knowledge of the HR professional that sets up knock-out questions. Similarly, both an ATS and a human can skip ideal candidates because of a lack of understanding for position specific keywords. If a job posting looks for a financial planning analyst that has experience with mergers and acquisitions and a candidate submits a resume stating that they performed due diligence in advance of company purchase, neither the ATS nor the HR professional may pick up that the candidate did due diligence during the acquisition of a

new company if they do not have the adequate job-specific knowledge (Arms, 2016). With just a little oversight, great candidates may be overlooked by both an ATS and a human.

ATS Formatting

While employers may use the ATS in a custom manner such as searching for employees by a special skill that is needed for a job (Amjad, 2015), resumes should be formatted in a manner that can pass the screening by both Human Resources Professionals, and ATS systems (Fertig, 2013). If the most qualified candidate does not format and write their resume to appeal to the ATS system, the system may miss that individual and not rank them as qualified enough for the job (Lucas, 2013; Moore, 2012; Weber, 2012). Something as simple as listing the name of a past employer after the time period worked rather than before it can confuse the ATS system (Weber, 2012). Since it is highly likely that the ATS will convert a candidate resume into a plain text format, candidates should simplify their resumes to ensure they are read accurately by the ATS, but still keep in mind that it will eventually be reviewed by a human being (Amjad, 2015). See Table 3 for general formatting for resumes.

Table 3

General Layout for Resumes

	Candidates should NOT...	Candidates should...
Fonts	Use bold or italic (Amjad, 2015) Use script or uncommon fonts Use font sizes over 16PT (Gillis, 2016)	Use standard fonts like Arial, Courier Georgia, Impact, Lucinda, Tahoma (Abdel-Halim, 2012; Amjad, 2015)
Special Characters	Use borders, shading, or tabs Use special characters or arrows (Abdel-Halim, 2012; Amjad, 2015)	Use simple bullet points (Abdel-Halim, 2012; Amjad, 2015)
Page	Use logos, tables, columns, graphics, images, headers, page breaks, or excessive bullet points Insert continuous lines into the page (the ATS may red them as page breaks) (Abdel-Halim, 2012; Amjad, 2015; Gillis, 2016; Moody, 2016)	Use a simple template (Amjad, 2015) Use a clean resume with no formatting other than simple bullet points. (Moody, 2016) Organize the resume into clear sections so that they are easy for the ATS to find (Fertig, 2013)
Other	Include an address on a resume because it can be misappropriated to the wrong field (Gillis, 2016) Include a middle initial; it can be parsed into the wrong field (Moody, 2016)	Fill in every field in the online application (Moody, 2016) Use the exact job title in the resume if possible (Gillis, 2016) Avoid gaps between employment because the ATS may rank the application lower because of it (Schultz, 2016)

Resume Skills Section

Applicants should use traditional resume headings such as Summary, Skills Summary, Professional Experience, Education, Training, and Certifications and Skills (Fertig, 2013) on their resumes. A Skills Summary is recommended at the top of the resume (Quast, 2015) as many employees search their ATS systems for specific skills (Abdel-Halim, 2012). Any abbreviations should also be spelled out (Abdel-Halim, 2012), and all relevant skills should be

listed; even if they can be implied through either the job posting or other content in the resume (Amjad, 2015; Yeager, 2016).

Tailoring Resumes for Keywords

Because many ATS' use keywords in the job description to rate the candidate, resumes should be tailored for each job to match the requirements as closely as possible. Candidates can take advantage of the automated software of the ATS by using words and phrases from the job description in a natural way in order to elevate a resume to the top of the ATS list, but still come across appropriately to the hiring manager. (Abdel-Halim, 2012; Amjad, 2015; Lauby, 2012; Smith, 2014; Weber, 2012; Yeager, 2016) In addition to carefully placing buzz words from the job description into a resume, a candidate should also include industry terms that will demonstrate their knowledge to the hiring manager (Amjad, 2015; Schultz, 2016; Yeager; 2016). Lastly, the tailored resume should also be tailored to include key competencies or knowledge of programs mentioned in the job description throughout as many past jobs as possible as the frequency of these key skills will help with the ATS ranking (Schultz, 2016).

PART 3

The Human Resources field has come a long way from the administrative and personnel management roles of the past, and to the Human Resource Management and even Strategic Human Resource Management roles of today. While businessmen like Robert Owen and John Patterson set new standards in workplaces, scientists and theorists like Max Webber, George Elton Mayo and Frederick Herzberg led the field of personnel management into the field of Human Resource Management. The modern thought leadership of Peter Drucker and the business practices of companies like IBM, Southwest Airlines, FedEx, and Marriott International have set a strong path to the acceptance of SHRM. Despite this, the SHRM theory that employees are the competitive advantages that drive the success of a company and HR departments are the strategic partners that will drive that success forward is not as widely practiced quite yet.

Although the tech industry has found success through the utilization of SHRM in workforce planning, the hospitality industries in Des Moines, Nashville, and Cincinnati demonstrate that there are larger HR barriers in the present day that will continue to challenge them from thinking about tomorrow. As large corporations utilize automated ATS software to recruit while local businesses utilize social media, word of mouth, and informal hiring to fill their staffing needs, larger companies may be at a deficit with their talent pool. Since many companies report talent shortages, companies that are reliant on the ATS technology will need to reduce the amount of time and effort spent on applications to increase the application completion rates from the average of 50%. Further, all companies need to evaluate their practices of obtaining and retaining qualified applicants as the long-term value that those individuals deliver

is likely much higher than the cost of potential lawsuits, discrimination fines, and replacement costs of poor hires.

ATS vs. HR Professional

As briefly discussed in Chapter 2, individual human beings are still involved and integral to all Human Resources activities. Human beings are unique individuals; driven by their individual ideas, beliefs, stresses, knowledge and knowledge gaps, training, and even prejudices. Workplace stresses on HR professions are a specific area of concern since the profession involves more responsibilities and requires a higher awareness of workplace trends and legislations than ever before. Despite all attempts to standardize hiring processes through procedures and technology, humans are the individuals behind those processes, procedures, and utilization of technology. While literature involving ATS technology discusses the flaws, the advantages for HR professionals, and the frustrations of applicants, it is important to remember that human beings are behind the design and implementation of the technology rather than the technology itself.

The education of HR professionals is inconsistent and of the minority of those that obtain HR certifications, ATS technology practice or knowledge is not a requirement to certification. Personal communication with ATS providers led to limited insights into the training of HR professionals (Ascendify; iCIMS; Jobvite; SilkRoad; SmartRecruiters; Workday, personal communication, Nov 15, 2016). With the exception of generic demonstrations and set-up assistance from the ATS or HRMS providers, training resources for HR staff must be sought out by the employer through the ATS once it has been selected as they do not exist on the company websites. With the little consistency of education and training methods of the HR professionals

which use ATS software, it is understandable that applicants experience many frustrations when applying for positions.

The following discussion speaks critically of ATS technology, but it is important to note that the pitfalls in ATS can probably be resolved with better understanding and training of the individuals that use the technology.

Previous Tests of Reliability

In 2011 Research firm Bersin & Associates created a perfect resume for a scientist position requiring multiple educational degrees, and submitted that resume for to an ATS operated by an industry leading software called Taleo. The resume scored as only 43% relevant because the ATS misread the formatting and not only eliminated a previous job, but did not read the degrees that were crucial to the success of the candidate (Levinson, 2012).

Peter Cappelli, a Philadelphia Wharton School of Management professor published an essay relating to recruitment in *The Wall Street Journal* in 2011 and a book in 2012. In his book, he discussed the critiques and personal experiences that recruiters had shared with him in response to his article. In one case, 25,000 applicants had applied for an engineering position, yet HR could not find the qualified candidate. In the case of a job applicant, he found out that he was disqualified from the position he was applying for because the job title of his last position which held a title unique to his employer, was a mismatch to the title of the job he was applying. In another case, an HR executive from Philadelphia anonymously applied for a position at his own company but did not pass the ATS screening process (Cappelli, 2012; Wessel, 2012).

In an experiment published in 2014, Humphrey (2014) analyzed 236 resumes/CVs and 212 job advertisements for financial services marketing roles in the financial services sector. Utilizing word clouds (a visualization of the words used in a body of text based on frequency and

relationship of usage), the keywords in job postings were compared to the keywords in applicant resumes. It was concluded that the keywords differed because the intentions of applicants and job postings were different. For marketing manager roles, job advertisers used the word 'marketing' frequently while applicants did not. Similarly, the word 'acquisition' is a common word for financial industries, but was rarely mentioned on the resumes of qualified marketing manager candidates. A similar pattern proved true for product manager roles with the resumes holding appropriate work experience being mismatched to job posting due to the emphasis on the word 'product' that the job description focused on.

In a case study of AirBNB; a peer-to-peer network where individuals can rent short-term accommodations from other individuals or 'AirBNB hosts', Edelman & Luca, (2014) discovered that non-African-American hosts earn roughly 12% more than African-American hosts for similar apartments with similar guest reviews. Discriminatory practices from AirBNB were ruled out as AirBNB has a format profile for hosts and does not set up any intentionally discriminatory questions. However, AirBNB does display photographs of the hosts; thus enabling prejudice from potential AirBNB guests. The study demonstrates that the human behaviors surrounding the use of technology can still result in discriminatory practices.

Discrimination and Elimination of Qualified Candidates using ATS Systems

Considering the hiring challenges and talent shortages discussed earlier in the paper, it is important to ensure that all qualified candidates are considered for positions. Further, it is even more important to ensure that the ATS system is not set up in a way which may unintentionally discriminate against a protected class as such an implication could lead to legal problems. The following sections discuss various ways that the use of an ATS may unintentionally eliminate qualified candidates. The discussed examples are based on four Las Vegas based employers that

operate multiple integrated casino resorts in the Las Vegas area. The following is a list of ATS names for each resort:

- Caesar’s Entertainment iCIMS
- MGM Resorts Workday
- Station Casinos Taleo
- Boyd Gaming HR Logix

Table 4 identifies commonalities in the employer online applications while the following section discusses some of the specifics.

Table 4

Commonality of Online Applications in Las Vegas Integrated Resorts

	iCIMS	Workday	Taleo	HR Logix
Desired Salary / Expected Pay		x	x	x
Company Referral	x	x	x	
Resume Parsed	x	x	x	x
Contact if needing accommodation		x		
Asks if being referred by someone	x	x	x	
Work Gaps must be filled in			x	x
Assumes applicant has U.S. education	x	x		x
SSN Required	x	x	x	x

ATS Formatting Flaws

Literature advising applicants on the best resume formats discusses the use of simple fonts and bullet points and to avoid special characters, lines, tables, arrows, bold or italic font, columns, or graphs. This is problematic since the technology assumes that applicants will submit a resume in a very simple format. While data on resume formatting could not be found, neither could a Microsoft Word resume template without design features that wouldn’t get filtered by an ATS. Assuming that the average applicant would know to submit a simple resume for the ATS

rather than one which is formatted and visually appealing is perhaps the reason that so many employers rely on informal hiring.

In addition to unintentionally eliminating candidates which format their resumes not knowing that they will get eliminated, there is possibility for discrimination on the basis of national origin. While uncommon for individuals born in the United States, individuals from outside the U.S. may have special accents and characters in their names that will not be read accurately by the ATS and re-communicated inaccurately to the recruiter. This could also be the case for past companies, project titles, or cities of employment. If the resume with a legitimate special character makes it to the recruiter, it is feasible for that special character to be interpreted as a typo in the resume and be discarded rather than recognized as a formatting problem within the ATS.

Job Posting and Application Flaws

The online applications of Las Vegas based hospitality employers were used to identify potential issues presented many frustrations. For Station Casinos, the function to refine a job search did not work making the ability to find job openings frustrating. The Caesars Entertainment application process produced technical errors on the Google Chrome internet browser forcing the abandonment of an application as well as caused preventable errors by omitting the format information for the only acceptable phone number format that could be entered to proceed. MGM forces applicants to search for the job that they wish to apply to after being asked to create or login to an account after attempting to apply to the job of choice. All four employers had the application set up in a manner that could either be discriminatory or unintentionally eliminate qualified candidates.

Two of the employers required every employment gap to be accounted for during the previous ten years despite also collecting a resume. Not only could this cause an applicant that had gone through a traumatic life event to abandon the application, but it could also create discriminatory practices based on gender or genetics. Since it is more common for women than men to lack employment because they chose to be homemakers or simply because they chose to be unemployed in order to have more time after giving birth, discrimination based on gender could be implied. If an applicant reveals that they were unemployed due to illness of their own, or because they needed to take care of a sick family member, discrimination based on genetics could also be concluded. Lastly, this could cause a significant amount of application abandonment in a city like Las Vegas where it is very common for individuals to hold multiple jobs at one time and participate in seasonal employment. Requiring ten years of seasonal and part-time employment history could require an extremely long time to fill out an application and unintentionally eliminate qualified applicants from continuing the application process.

Most employers required either a State or Zip Code of past employers or schools. The requirement for a zip code not only extends the length of the application process, but it could cause an applicant to abandon the application if a zip code is not easily obtainable. Assuming that every applicant worked in or went to school within the United States could also cause application abandonment of those that participated in international education programs or employment opportunities, and could be cause for discrimination based on national origin for those applicants that are not originally from the United States.

All four employers required a Social Security Number at some point in the application. According to Section 4 of the Equal Employment and Opportunity Commission's EEOC Enforcement Guidance on National Origin Discrimination, "A policy or practice of screening out

new hires or candidates who lack a Social Security number implicates Title VII if it disproportionately screens out work-authorized individuals of a certain national origin, such as newly arrived immigrants or new lawful permanent residents, and thus has a disparate impact based on national origin. If a new hire or applicant shows that such a policy or practice has a disparate impact based on her national origin, its use is unlawful under Title VII unless the employer establishes that the policy or practice is job related and consistent with business necessity” (U.S. Equal Employment Opportunity Commission. 2016). This means that the ATS of all four Las Vegas based employers discriminates based on National Origin unless there is a legitimate business necessity.

In addition to the specific job posting flaws, many other oversights leave opportunities to support future claims of discrimination. All four employers ask about expected salary or past salary, although not all the employers required the applicant to answer. Given that females historically make less than their male counterparts, this could set a basis for future equal pay discrimination lawsuits. Similarly, asking candidates to select from a list of acronyms relating to their education implies that candidates are expected to have a U.S. based education. Lastly, only one of the four companies provided contact information to those that require assistance or accommodation with the application process, thus paving the way for future claims of not adhering to the ADA Act.

Knockout Questions

Irrelevant knockout questions not only delay the application process, but they can also unintentionally eliminate qualified candidates. Setting knockout criteria for questions that are not imperative to the job can skew the applicant recommendations. For example, one Las Vegas employer required all applicants to read a company vehicle policy and answer if the applicant

had a driver's license. This question was mandatory for the job opening of a seasonal part-time lifeguard, yet there were no questions asking about certifications, first aid training, or any other relevant training that would be expected of a lifeguard. If the inquiry into possession of a driver's license is tied to knockout criteria with an answer of yes valuing candidates higher than those that do not have a driver's license, then that question could disqualify candidates despite a lifeguard not needing a company vehicle to perform their seasonal part-time job. If additional knockout criteria that is specific to the job is not in place, then applicants that have a driver's license could be rated higher than all those that do not despite other more qualified applicants possessing more training, certifications, and experience, but being ranked lower due to their answer to a question that is not relevant to the job.

Another employer asked all candidates if they could perform strenuous and repetitive physical activities. This question was for a revenue optimization manager; a role which requires financial and computer knowledge and is primarily office based. The need to perform strenuous and repetitive physical activities was nowhere in the job description, but it was a mandatory question during the application process. This could create application abandonment by applicants that understand the question as an unusual job requirement rather than an oversight by HR. The question is also discriminatory against those with physical disabilities since it is not an actual job requirement, but it is likely being used to rank candidates by the ATS since it is a legitimate job requirement for other customer facing positions.

Moody, (2016) discussed the ability to work nights and weekends as being a common yet unnecessary rejection criteria in ATS systems. Two out of the four Las Vegas employers utilized this knockout tactic by asking if the applicant could work all/any shift, while the other two asked the applicant to provide the shifts and even the days that they would be available to

work. The all or nothing approach of inquiring about availability can eliminate a large percentage of candidates that are otherwise extremely available to work. Part time positions that require employees to primarily work weekends and evenings may disqualify college students because they cannot work some shifts due to being in class during the week day. Similarly, many office jobs do not need to be available to work weekends, evenings, and overnight shifts.

In addition to using shift availability as an irrelevant basis to qualification for a job, asking candidates if they could work every shift creates a pattern of discrimination for a multitude of protected classes. If a Jewish individual practices Sabbath on Friday night and Saturday, or a Christian or Catholic individual attends church on Sundays, then the question is discriminatory based on religion. If the individual is a parent that requires certain shifts off to take care of their kids, the question can be discriminatory based on gender or age depending on the individual's family situation. If the applicant requires a weekday morning off to attend doctor appointments, or requires a specific time of the day to be available in order to administer medication to a family member, the question is discriminatory on the basis of either disability or genetic information. Asking applicants if they are available around the clock for a job that does not require it establishes unnecessary discriminatory hiring practices that can easily be avoided.

Outliers and Future Improvements

Despite the negatives of ATS, there are many positives of the technology. If used correctly, ATS can be leveraged for communication with applicants in a way that is not possible otherwise. The recruiting process as well as each digital communication with the applicant becomes easily accessible to the entire HR team and not just the individual recruiter. The automation of e-mails that is included in the software allows the company to automatically acknowledge the application, as well as keep applicants updated on the application process

through quick tools which help mass or individually e-mail specific groups of applicants. The ATS not only allows for seamless communication, but it creates collaboration within the hiring process that previously did not exist (Graceya, 2014; Zielinski, 2015).

New ATS providers or product innovations of established ATS providers have implemented new tools that offer more benefits than previous ATS versions. Data and analytics have improved significantly as the technology has become more versatile. While the technology was previously housed on company computer servers, it can now be accessed online without any need for computer servers and very minimal IT involvement. New promotion methods and partnerships with job boards allow employers to advertise job openings more easily and to a much wider audience than ever before. New partnerships between ATS providers and other technology providers have also enabled new specialized technologies such as video interviews or online assessments to seamlessly operate within the ATS. Even the filtering technology itself has improved as the parsing software has learned to scan for context rather than just individual words (Ryan, 2015; Zielinski, 2015).

Despite the challenges with ATS, the ATS process has significantly improved for applicants in recent years and will continue to improve. Traditionally applicants have had to dedicate significant time and effort to apply from a computer. Modern ATS systems have enabled applicants to apply from a mobile device using social media such as LinkedIn in addition to applying from a computer using a traditional resume. This means that applicants can use a smartphone to apply for jobs; provided that their LinkedIn profile is up-to-date and the company is using an ATS that has this capability. As ATS providers continue to develop the technology and recruiters learn from previous challenges, ATS will become less challenging and more beneficial to use (Ryan, 2015; Zielinski, 2015).

Recommendations

There are many things that HR departments can do to ensure that they get the most from their ATS by avoiding unintentional filtering of candidates as well as reduce application abandonment.

Determining existing problems by testing the effectiveness of the hiring process that is already in place can be a great first step. Companies can ask their best employees to apply for relevant jobs with a fake name but their real resumes in order to see how the best employees are ranked by the ATS. Alternatively, companies can submit fictional resumes of an ideal candidate to see how that ideal candidate ranks. Conducting focus groups by asking company outsiders to test the application process can also provide honest feedback and offer insights that someone within the company may not communicate. Asking legal to review random job postings and the application itself can also help identify, correct, and prevent an unintentional pattern of discrimination. Lastly, asking new hires about their application experience could offer the most recent and relevant insights to the process – even if the applicant was hired through networking rather than through the ATS.

Companies should re-evaluate their ATS and HRMS frequently to ensure the features and practices they are using are consistent with the behaviors of potential candidates. If applicants are expecting to apply for jobs with their mobile phones, but an ATS does not offer that option, the ATS is creating a disadvantage to the company. One way to approach this is to require annual training between the HR department at the company, and the provider of ATS software. Although this may not be desirable by some, standardized training with the technology being used will help ensure that all the functions of the technology are being used appropriately. A

formal annual meeting with the software provider will also allow employees to ask questions or communicate software needs.

Given that most of the ATS related frustrations discussed in the literature are applicant experience related, companies should work on improving the application experience. Companies should simplify the online application process by only obtaining the applicant information that is critical to determining if they should be interviewed. Forcing applicants to fill out information that will only be used if the individual moves past the initial interview (such as the name and contact phone number of a supervisor from 8 years ago) is a waste of time for the applicant and increases the chances of application abandonment. In addition, companies should be more transparent about how the ATS works by communicating any nuances of the software to the applicant within the application. This will enable the applicant to avoid accidental self-elimination, and will help provide logical explanations for some of their frustrations with the experience.

Many companies are forgoing the ranking of ATS by choosing to simplify the online application to just the bare necessities and re-focusing the applicant's time onto pre-employment testing. Companies like Talent Insights (www.talentinsights.com), Optimize (www.optimizehire.com) and HackerRank (www.hackerrank.com) enable employers to select candidates based on personality fit, skill, or a combination of both. Foot locker is one example of a company utilizing pre-employment testing. Initially beginning in 2010, Foot Locker screens candidates for cultural fit as well as personality traits that are similar to the personality traits of their most successful employees. Foot Locker has been able to reduce their time-to-hire, and free up the time of managers as a result. Companies which utilize pre-employment testing are

36% more likely than average to be happy with their new hires, and new recruits are more likely to meet their performance goals within the first year of work. (Ring, 2016)

To prevent getting stuck in an outdated recruiting process, companies should continually shop around for new recruitment technology. Even if there is no intention to switch, the search for new technology will provide insight into the features and solutions other companies are offering. This will allow recruiters to evaluate the existing software and determine if there is something that should be expected from the current ATS provider that is not already being utilized.

Researcher Reflections

After multiple cases of application abandonment and a feeling of discrimination due to corporate hiring practices, the researcher grew interested in Applicant Tracking Software after trying to determine how some managed to become employed at the companies with the infuriating application process. While working as a Graduate Assistant at the University of Nevada, Las Vegas, it became very apparent that most students working on the Las Vegas strip were hired through referral rather than by ATS. Following preliminary studies on the topic, it became apparent that application abandonment and the lack of qualified candidates were themes throughout many the Human Resources departments within the United States.

The initial assumption was that the ATS technology was not thought out for all industries and human scenarios. Initial research demonstrated that there was an information gap between the way the software is designed to work, and the way humans that interact with it. With more research, it became clear that the technology is just one of many tools used for recruiting. Unfortunately, the training and education of HR professionals that use this tool is very

inconsistent, resulting in a researcher conclusion that much of the applicant frustrations can be resolved with better training and improvement of HR processes in relation to the use of the ATS.

Suggestions for Further Research

Given that the topic of ATS technology is largely unexplored and constantly evolving, there are many opportunities for further research. Qualitative and quantitative studies with both recent job applicants, and HR professionals into the assumptions and common practices surrounding ATS could offer very valuable insights into the area of recruitment. Interviews with the technical individuals at the ATS providers could help create a comparison of screening options and differences between the technologies. Conducting experiments of submitting fictional job applications like discussed in recommendations will test the effectiveness of the job posting, application process, and the ATS itself. Lastly, gaining access to the data collected by the ATS could afford endless possibilities for further research.

Summary and Conclusion

Research as well as previous tests of reliability both demonstrate that there are significant flaws to Applicant Tracking technology. These flaws include technical glitches, discriminatory practices, and extremely lengthy applications requiring more information than is necessary. Given existing labor shortages, it is important for HR departments to eliminate some of these job application barriers that prevent qualified applicants from being considered. Accountability for frustrating job applications is uncertain as the HR professional using the ATS may not be adequately trained or educated in the functions of the technology. Better company efforts to frequently evaluate and test the effectiveness of the ATS in place will drive HR knowledge and hopefully prevent valuable job candidates from being unintentionally eliminated from consideration.

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