

New Thought of Online Recruitment in the Era of Big Data¹

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Abstract

Traditional online recruitment have several advantages such as wide coverage, low cost recruitment, recruiting without time and space constraints. But also have some problems like information fidelity, low success rate, and homogenization services seriously. The purpose of this paper is to apply the big data technology to online recruitment. In order to know the advantages of online recruitment based on big data fully, we analyze the case of foreign company of TalentBin. The case of TalentBin gives domestic organizations new thought to develop online recruitment based on big data technology which will resolve the deficiencies of traditional online recruitment.

Keywords: Big Data, Online Recruitment

0. Introduction

Online recruitment is also known as e-recruitment, which refers to use the internet technology for recruitment activities, including the release of the posts information, collecting resumes, online interviewing and online evaluation, etc. ^[1]The main channels of online recruitment are business owner sites and third-party platform. Currently, online recruitment has exceed the traditional recruitment manners such as talent fair, newspaper, becoming the most commonly method for enterprise hiring.

1. Status and Problems of Traditional Online Recruitment

1.1 Current Status of Online Recruitment

Chinese online recruitment market enters the mature stage. Comprehensive recruitment market has a steady growth, and at the same time, the emerging recruitment models of vertical recruitment and social recruitment market also increase significantly. According to "2012 China's online recruitment industry annual monitoring report" released by iResearch, China online recruitment market revenue had an increase of 22.2% which reached 2.67 billion yuan in 2012, and the online recruitment market is expected to keep growth in the coming years. Meanwhile, online recruitment patterns have gradually been accepted by users, and the users' habits have also been developed. In 2012, the online recruitment websites average monthly visits have exceed 100 million for the first time.

Ireland Saongroup purchased 90% stake of China HR in January 2013, temporarily breaking the pattern of the original three pillars. Currently, comprehensive recruitment sites 51job and Zhaopin occupy the largest market share. New types of recruitment sites have been growing rapidly in 2012 which have caused some impact on traditional comprehensive websites.

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1.2 The Advantages of Online Recruitment

Wide coverage. Network communication have the advantage of extensive coverage which is difficult for other media to compare with. Thousands of job vacancies information and job-seeking information can spread to every corner of the world in a very short period of time.

Low cost of recruitment. Online recruitment can significantly reduce recruitment costs.^[2]For the job seeker, the only things they need do is to pass the electronic resumes to their interested company without the need for expensive printing, copying, mailing, transportation and other expenses. For the employers, the online recruitment eliminates their advertising costs, travel expenses, intermediary service fees, and the employers only need to pay the fee of releasing information. Timely feedback. Job seekers and recruiters can quickly find their ideal positions and recruiting people through the query filter function on the site, so they can establish contact with each other in a very short time.

Without time and space constraints. You can use the recruitment websites to find job or to recruit employees whenever the time is and wherever you are. The method of online recruitment avoids the restrictions of traditional methods of recruitment in terms of time and space.

1.3 The Problems of Online Recruitment

Low-fidelity information. Most recruitment sites do not require real-name authentication, which easily lead to some job seekers' and recruiters' dishonest behaviors such as false information and exaggerated abilities of job seekers. Because some smaller recruitment sites don't have enough sources of information, so those sites usually steal other renowned sites information. Thus, it's easily to understand why the company recruitment has ended, but the information is still hanging in online.

Low success rate. A large number of invalid information will increase the likelihood of missing real qualifier. Besides, employers will spend a lot of time and effort to find potential employees. Thus, it's necessary to improve the accuracy of information matching.

Homogeneous services. It's inevitable to face the situation of homogeneous competition during the "pack and play" stage, and the online recruitment industry is no exception. Recruitment sites single business and profit model lead to cut-throat competition in this industry.

2. Background, Characteristics and Applications in the Era of Big Data

2.1 Background, Characteristics in the Era of Big Data

In addition to "the internet of things" and "cloud computing", IT industry has recently produced a conception of "big data". It not only becomes an inner key element of the internet of things and cloud computing, but also affect all aspects of social life. [3]According to McKinsey & Company research report in 2011, "massive data, innovation, competition and raise the next generation rate of new areas," points out that mankind has entered the era of big data. Data has penetrated into every functional area of business and industry, it has become an important factor of production. Making full use of huge amounts of data will herald the good new round of productivity growth and the arrival of the new era of consumer surplus.

Concerning the concept of big data, enterprise and academia area have not formed uniform definition.^[4] Wikipedia thinks big data refers to the huge amount of data that can't be interception, management, processing and sorting out to interpretable information by artificial. IT industry renowned consulting company Gartner defined the big data is high-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.^[5] Despite existing different statements, there also have some common views. Big data has several characteristics of large-scale, multiple forms, fast generation, great value but low density.^[6]

2.2 Wide Application of Big Data

Big data is growing at an unprecedented way of all walks of life. The application of big data can help us get more information and more efficiently patterns to deal with and make use of the information.^[7] Big data will have great impact on public monitoring, key words searching, data engineering, intelligence analysis, marketing, medicine, cosmology, astronomy, materials science, meteorology and other fields.^[7] As in the business world, putting vast data into business value is particularly important. Big data technologies help us classify and regroup the complex data from various information platforms. These aggregative data contain a high commercial value which may lead to the success the company.^{[3] [4] [8]}

2.3 New Thought of Online Recruitment in the Era of Big Data

Traditional online recruitment existing three main problems which are low-fidelity information, low success rate, and homogeneous services. During the era of big data, by collating, classifying and aggregating the online social network data and information created by users, we can form users centered database. Those big data technologies give us a new thought of developing online recruitment based on big data technology which will resolve the deficiencies of traditional online recruitment.

3. New Models of Online Recruitment in the Era of Big Data- Take Talent Bin for Example

3.1 The Introduction of Social Recruitment Site: Talent Bin & Its Business Model

TalentBin is an online social recruitment site which was established in 2011. It collates huge social network and vertical professional communities’ data such as Facebook, Twitter, Google+, Meetup, Quora, ithub, Stack Overflow and Behance, etc. TalentBin also collates kinds of unstructured data like U.S. patent database, open source e-mail list service and Life Sciences authorship PubMed database. By analyzing the huge users’ data, it eventually forms an individual-centered database. So it can help the employers find the right person in a more comprehensive vision according to the character, interests and efforts of potential employees. TalentBin provides more information than traditional online recruitment sites. According to TalentBin’s algorithms that recruiters can find those technical genius who are hard to find.^[9]

Key Partnerships Social & Vertical professional communities; Unstructured data	Key Activities Data collating, processing	Value Proposition Technical genius finding communication tools, marketing management & report	Customer Relationship Low cost, high efficiency	Customer Segments Employers
	Key Resources 100M+ social data		Channels TalentBin.com, Application, API	
Cost Structure Marketing, platform establishing, data collating & processing		Revenue Streams Free search+ Value-added services		

Figure 1: The Business Model of Social Recruitment Site: Talentbin

3.2 The Advantages of Online Recruitment Based on Big Data

With the technologies of big data creating and innovating, there exist a new thought to transform the online recruitment. The online recruitment based on big data not only has the advantages of wide coverage, low cost recruitment, recruiting without time and space constraints, but also make up the shortcomings of traditional online recruitment.

More realistic and comprehensive information. By collating and analyzing the huge data created by the users from different communities, it describes the potential employees all kinds of information detailed. So it can help the employers find the right person in a more comprehensive vision according to the character, interests and efforts of potential employees.

Online recruitment is pointed and has high success rate. During the age of big data, it’s so accurate and rapid to find ideal employees by aggregating the massive data and combining advanced searching technologies. So, those methods guarantee the high success of online recruitment. The company of TalentBin collect and compute the talents in computer science. It provides the searching services including the keywords of geographical location, age, gender, and computer science. Meanwhile we can directly see every talent’s scores in targeted fields.

Differential online recruitment service. Compared to traditional recruitment websites which only provide a single information platform, online recruitment based on big data have the function of information interaction. It can also integrate the social data into the process of online recruitment and offer a range of convenient recruitment service.

For example, TalentBin provides the service including searching technique talents, communication tools, sales process management and analyzing reports, which will help employers find the best employees at the lowest cost.

4. Summary

The generation of big data technologies offer new opportunities for online recruitment and highly improve the searching efficiency and matching accuracy of online recruitment. Meanwhile, internet data are faced with the challenges coming from complexity, uncertainty and emergency. Firstly, the complexity of internet data refers to the difficult processes of storage, analysis and data mining. Besides, data uncertainty makes it difficult for data modeling and learning, which is a huge challenge to use its full value. However, emergency refers to the difficulty of measuring, researching and predicting data. These three challenges add some uncertainty of the development of online recruitment. As the data associate with business activities more closely, we look forward to a broader application of online recruitment.

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