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Job Site Evaluation Framework (JSEF) and Comparison of Greek and Foreign Job Sites

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Abstract: Job sites are emerging as a successful way of job finding and filling. Job seekers are using job sites to find appropriate jobs. Recruiters are using job sites to find appropriate employees. This paper provides a Job Site Evaluation Framework (JSEF) both from the job seeker and the recruiter point of view. This framework may be useful for job seekers, recruiters and job site designers. Furthermore, the paper evaluates the state of Greek job sites in comparison to foreigner ones. Guidelines and proposals for job sites improvement are given.

Keywords: e-recruiting, evaluation, Internet job market, Internet job boards, Internet job sites, online recruiting.

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1. Introduction

Recently, e-recruitment is developing with frenetic rhythm. There are many job sites that help either job seekers to find a job, or enterprise recruiters find workers. Previous papers on e-recruiting can be classified into 4 categories. The papers in the first category study the e-recruitment phenomenon stating the advantages and disadvantages for business, economy and society. The papers in the second category provide information and tips for helping job seekers. The papers in the third category provide information and help for recruiters. Finally, the papers in the fourth category analyze and compare job sites. This paper develops an evaluation framework for job sites both from the job seeker and the recruiter point of view.

A framework of the recruitment process is presented in [1]. The major attributes contained in the top five revenue generating Internet Job Boards in the world are given in [5]. These attributes are distinguished in 8 primary, 10 secondary and 15 unique attributes for job seekers. Also, they are distinguished in 10 primary and 3 unique attributes for corporate recruiters. Obstacles in using online employment services are discussed in [6]. Recruiters are concerned about the accuracy, verifiability and accountability of the data. On the other hand, job seekers are concerned about the privacy of their personal data. The lack of personal touch also limits the communication flow leading to frustrations and missed opportunities. Paper job postings were preferred by students to those in a Web-based format as shown in [8]. Also, the students prefer job posted on Web pages of higher quality to those posted on pages of lower quality. Recruitment web site orientation and outcome expectancy influence organizational attractiveness perceptions through influencing the perceived usability of the website [7]. A model in [3] explicates how job seekers interact with and respond to web site characteristics. It is used to predict various job seeker attitudes and behaviours. It is suggested that job seekers are initially affected by the façade of a web site, comprised of the web site's aesthetic and playfulness features. Coupled with system features of a web site, these initial affective reactions then influence perceptions of the usability of the web site. Perceptions of usability and affective reactions work through two key mediating constructs, job seeker search behaviour and web site attitude, to ultimately predict applicant attraction. The impact of the employment web sites of "Best Companies to Work For" on job-seeker perceptions is assessed in [4]. Also, insights are provided on how the form, content, and function of corporate employment Web sites affect job-seek employment-pursuit decisions. A case study for an automated recruiting and screening system of an educational publisher is presented in [2]. The analyses showed conservative savings due to reduced employee turnover, reduced staffing costs, and increased hiring-process efficiencies. These cumulative savings yielding a return on investment of 6 to 1, or a return of $6 for every $1 invested in the program.

Based on these papers, on a survey among students and employees and on our experience on web site evaluation, we develop the proposed Job Site Evaluation Framework (JSEF). This framework may be useful not only to job seekers and recruiters, but also to designers and developers of job sites, job markets, and corporate web sites. These web sites would improve their services considering all criteria. Also, using this evaluation framework, we compare the Greek job sites to foreign ones and state suggestions for improvement.

E-recruitment is not yet widespread in Greece. However there are some Greek job sites that offer a respectable level of services. These are: www.jobclub.gr, www.justjobs.gr and www.skywalker.gr.
Abroad, there are many good job sites. After extensive and thorough investigation, we select three of them. The first job site is that of the USA Ministry of Labour: ajb.org. It helps USA citizens to find a job. The second job site is www.monster.com. It has created "branch-sites" in many countries, in order to cover the job needs all over the word. In this paper, we evaluate the USA version. Thousands of people have found a job through Monster, while many companies use it to find employees. It is one of the leading private job sites. So, we can make a comparison between the private and public USA job sites. The third site is www.stepstone.com. It is a European job site. It also cooperates with other regional job sites such as the totaljobs.com (England) and infojobs.net (Spain). In this paper, we evaluate the French version.

2. Job Site Evaluation Framework (JSEF)

We develop the JSEF, an evaluation framework for job sites across 4 categories: a) Job Market, b) Technical, c) Usability, and d) Social. Each category has different importance (weight). So, the weight of Job Market is 40%, the weight of Technical is 25%, the weight of Usability is 25%, and the weight of Social is 10%. Each category is divided into subcategories of equal sub-weight. Furthermore, every criterion in each subcategory has different weight.
The Job Market category examines criteria related to the jobs offered and requested (Table 1). It consists of two subcategories: 1) Job Seekers requirements, and 2) Recruiters requirements. In the first subcategory, we evaluate the job sites efficiency with respect to the job seeker needs. A job seeker needs some special services from a job site. First, she wants a large number of job openings and an easy way to find the appropriate job. So, a job site must provide a job classification facility and a profile's creation tool. A profile helps the job seeker to find faster the information that she is looking for. The right curriculum vita is very important for a candidate. So, it is very useful if the job site provide help and facilities for the creation of a good curriculum vita. Finally, a job seeker is highly interested in information about the companies that offer jobs. In the second subcategory, we examine the job sites with respect to the services that they offer to recruiters. A recruiter is interested in finding many candidates and a method to select the right one. Also, a recruiter may like to advertise her company on the job site.
The Technical category examines criteria related to the technical aspects of the job site (Table 2). It consists of four subcategories: 1) Interface, 2) Reliability & Credibility, 3) Communications, and 4) Security & Privacy. In the Interface, we examine if the colours, the backgrounds, the graphics and the content are well designed and if the users are pleased with them. In the Reliability & Credibility, we assess the credibility of the job sites. The job sites must inform the users about their reputation, their effectiveness, their updates, their number of visitors, their number of new offers, their services, etc. It is also useful to explain the rewards and the services from registration as well as after an agreement. In the Communications, we examine the various ways that a user can communicate with the job site to acquire information. The job site must support e-mail, telephone, fax, etc. It will be useful to keep on forums, chat rooms, and Frequent Questions-Answers (FAQ). In the Security & Privacy, assess the capability of the job site to secure the user's data. Privacy and confidentiality of the user's data are also included.

The Usability category examines criteria related to the easiness and friendliness of using the job site (Table 3). It consists of two subcategories: 1) Navigation, and 2) Easy of Use. In the Navigation, we examine if the job sites have all the necessary tools as a search machine, a site map, a help button which make the navigation faster and easier. In the Easy of Use, we examine the easiness of using the job site. We assess the speed, the registrations' facilities, the absence of broken or under construction links, the easiness to access specific job categories, and the easiness of using the menu.
Finally, the Social category examines criteria related to the accessibility, multilingualism and other social parameters (Table 4).
The job sites have been evaluated by 102 persons: 42 students, 13 accountants, 28 managers, 12 informatics, and 7 bank employees.

3. Evaluation Results

Foreign sites score higher than the Greek ones for the Job Market criteria (Figure 1). The number of candidates who have deposited their curriculum vitae (CV) and the number of companies which look for employees in the foreign sites is huge. Therefore, the user has many options to choose. Despite this, the Greek sites offer to the users all the necessary functions. The user participation in the Greek sites is low because the use of the Internet for job seeking and recruiting is not widespread in Greece as it is abroad. Moreover, Greece is a small country with 10 million people. So, huge differences will appear in the number of users who are looking for jobs in the internet between Greek and foreign sites.
The Monster achieves the highest score for this category. The number of job candidates and recruiters in the Monster.com is huge. It is globally known and it has branch-sites in many countries. Furthermore, it offers many excellent services.

Fig. 1

Figure 2 shows the scoring from the Job Seekers side. The Greek sites fall short in comparison to the foreign ones. Monster offers the best services to the job seekers.A candidate have the opportunity to create a profile, which gives him many facilities about the information that wants to find and it is free. The CV's creation is a very easy task for the candidate. Monster offers three different ways to create a CV: i) filling a form, ii) automatic transformation of personal information into a CV, and iii) depositing a ready CV. It has many jobs offers and the job categorization is excellent. Finally, it provides extensive information about the potential employers. However, we should make it clear that it is not only the responsibility of the job sites but also of the participating companies that offer jobs to provide as much as possible information about themselves. Consequently, this information not only varies from job site to job site but also between the companies on the same job site.

Fig. 2

Figure 3 examines the services from the Recruiters' point of view. In this subcategory Monster is again the best site. It has a huge number of candidates and many facilities which help the recruiter to find the appropriate employee. It also gives the opportunity to advertise the company and it has a very good briefing via e-mail.

We have to mention that Monster providers a video which shows to recruiters how to use these services. Also, the other foreign sites provide very good services. On the other hand, the Greek sites (except Justjobs) do not seem to manage the recruiters' needs. The main reasons are due to the small job market of Greece.

Fig. 3

In the Technical category, the differences between the Greek and the foreign job sites are not so large (Figure 4). Monster is again the best job site in all four subcategories (Figures 5, 6, 7, 8).

Fig. 4

In the Interface subcategory (Figure 5), the Greek sites are well designed. Monster scores a little higher than the rest ones. The users find the colours, the backgrounds and the graphics very attractive. They also find the content very clear and simple. NORA (National Online Recruitment Awards) has awarded a prize to Monster in 2003.

Fig. 5

In the Reliability & Credibility subcategory (Figure 6), we examine if the user can trust the job site about the offered information. It is important that the information is accurate. Information about the job site, the candidates, the companies, and the advertisements must be precise and updated. JobClub scores a little higher than the others. The users are confident for the accuracy and currency of its information. Greek sites score high exhibiting high credibility and trustworthiness.

Fig. 6

In the Communications subcategory (Figure 7), we examine the different ways that a user can use to communicate with the job sites. It is vital that the user is aware of the fact that she can communicate with the site directly, quickly and easily. This makes the user feel more secure and satisfied as she knows that whatever information she needs she can get it by communicating with the site. Again, Monster scores higher than the other job sites. The users can communicate via e-mail, via phone and via forums or chat rooms in order to find what she is looking for. The Greek sites (except for Skywalker) stand on a very good level.

Fig. 7

In the Security & Privacy subcategory (Figure 8), we examine the security systems used to secure the stored or transmitted data and payments. Monster is the best of all. The users are confident for their data because Monster uses advanced security systems. The Greek sites do not succeed in persuading the users that their data are secured and will not be used inappropriately.

Fig. 8

The next major category is the Usability (Figure 9). Here, we investigate how easily the user can use the job site, find what she is looking for and succeed in her task. Greek sites are inferior to the foreign ones which contain many facilities. The Ajb is the best site in this category. However, the Greek sites are simple and small; therefore the user is not getting tired.

Fig. 9

In the Navigation subcategory (Figure 10), the Ajb is clearly the best. It has all the necessary tools, such as sitemap, search engine, etc. The Greek sites fall short of the foreign ones in the navigation facilities.

Fig. 10

In the Easy of Use subcategory (Figure 11), all the job sites rank at the same level. The Greek sites are small and simple, while the foreign sites offer a variety of tools. So, for different reasons all job sites are easy to use. Stepstone is little bit easier to use. The menu is simple. The registration is very easy and the speed is greater than the other sites.

Fig. 11

The last category is related to social aspects (Figure 12). It is vital that the job sites offer services to all people and do not discriminate. Single mothers, elderly, people with low level of education, people with limited technology experience, people with low abilities, and people with special needs should not be restricted of accessing the job sites.

Fig. 12

The Ajb is pioneering in the accessibility facilities. It's the only site which gives information and offers services to people with special needs and this fact differentiates it from the other sites. Concluding, the social parameters in the job sites should been further developed in order to satisfy all users. It is necessary to give the possibility of use to persons with special needs. The existence of many languages would also be very useful. Moreover, it is important that the structure and the logic of the site facilitate people who are not familiar with computers and Internet. Another useful service is the help to fill in the applications. Furthermore a classification of services per gender, age, nationality and place of residence would be helpful as the user could select the most appropriate services for her.

4. Conclusions

In this paper, we have presented JSEF, a comprehensive framework for evaluating job sites both from the job seeker and the recruiter point of view. We classify the evaluation criteria in four major categories: a) Job market, b) Technical, c) Usability, and d) Social. Furthermore, we divide each category into subcategories. So, the Job Market category consists of the 1) Job seeker and 2) Recruiter subcategories. The Technical category consists of the 1) Interface, 2) Reliability & Credibility, 3) Communications, and 4) Security & Privacy subcategories. The Usability category consists of the 1) Navigation, and 2) Easy of Use subcategories. The criteria in each

subcategory weight differently in the score of the subcategory. There are also weights for each subcategory. Finally, each category weights differently in the total score.
Using this evaluation framework, 3 Greek and 3 foreign job sites were evaluated by 102 persons: 42 students, 13 accountants, 28 managers, 12 informatics, and 7 bank employees (Figure 13).

Fig. 13

Greek job sites fall short against the foreign ones in the Job Market category because they do not have huge amount of job information. In the Technical category, Greek sites do not exhibit large deviation from the foreign ones. However, they do face some problems at their renewal and their credibility mainly because they are at the first stage of their development. In the Usability category, the foreign job sites offer plenty of tools and facilities to the user. It seems that the Greek job sites are hard working to improve their usability. Finally, the social parameters are almost ignored by most job sites. All people should have equal access and opportunities in a civilized society. The public job site Ajb is the only one to consider people with special needs.
Ajb is the most complete job site. It satisfies the criteria in all categories and would be considered as a guide for designing a good job site. Monster closely follows. It is better than the other job sites in the Job Market and Technical categories, but it has some drawbacks in the Usability and Social categories. It provides many navigation tools that could overload a non-experienced user. A novice user would be lost in all this information making difficult to find what she is looking for. Finally, it does not provide many accessibility facilities. Stepstone is a job site that tried hard to spread out all over Europe. At a first glance, it is not so impressive as the Ajb and Monster. However, a user can find a lot of useful and interesting information in it. It is simultaneously simple and complete providing all the necessary tools to use it easily.
Next, we investigated the Greek job sites. Jobclub is a very well designed jobsite but it needs further effort and resources to reach the level of the best foreign sites. This is reasonable due to the small job market of Greece. It has shortages in the Job Market category. It also needs improvement in the Usability category. Its navigation is quite difficult since it does not provide any navigation tools such as site map or search engine. Moreover, improvements should be made in the Social parameters. Skywalker has the necessary tools and data for the user. However, it also has several deficiencies. The quantity of jobs and employees is mediocre yet for the Greek market too. The interface needs to be upgraded and the services for security and reliability are not enough. It lacks very important tools for the navigation like a search engine. Finally, it should further consider the social parameters. Justjobs is the best among the three Greek sites. It is the only Greek site which approaches the levels of the best foreign sites. In general, it provides satisfactory levels in most categories. The interface and the navigation are very good. It seems reliable but it needs improvement in security. In Figure 14, we compare all 6 sites in all categories.

Fig. 14

Concluding, most job sites perform well at most of the evaluation criteria. However, more efforts are needed to enhance the Usability and Social parameters. The distance of the Greek sites to the foreign ones are not so great. Regarding the numbers of job seekers and offers, it is expected to be low due to the small job market. They could increase these numbers by forming alliances with other job sites.

For example, an alliance of major job sites in various European countries would exchange jobs offer and demand. So, a German company that is offering employment to European citizens would have better access to the Greek job seekers via a Greek job site. Regarding the reliability and security they could be supported by accredited security organizations. It would also be easy to incorporate widely available navigation tools such as site map, categorization's lists and search engines. Finally, they should seriously consider people with disabilities. Appropriate facilities should be provided so that all people have equal opportunities and possibilities. For example, text to voice translation may be incorporated into the job sites. They could also ally with organizations and companies that support people with special needs.

To sum up, we provide JSEF, an easy to use and comprehensive evaluation framework for job sites. A job seeker, a recruiter, a job site or a corporate web site would use these criteria to accomplish successfully their tasks. In the same way that each of us has a preferred search engine, a job seeker or a recruiter may select his preferred job site. Furthermore, the job sites or the corporate sites may use this evaluation framework as a guide to improve their recruiting services.

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Appendix

A. Job Market	**40%**
A1. Job Seekers	**50%**
Quantity of Jobs	20%
Job Categories	20%
Per Country – Region	20%
Per Wage	20%
Per Registration's day	20%
Per Convention's Duration	20%
Per User Profile	20%
Profile's Creation	15%
Free	33%
Access to subjects depending on the profile	33%
Briefing via e – mail for subjects on the worker's profile	34%
C.V.	20%
CV's Creation	20%
Help for CV's Creation	20%
By Form	50%
By Advices	20%
By Example	20%
On Payment	10%
Ready CV's Registration	20%
Access and Enrichment of CV	10%
CV's Adaptation depending on the Company	5%
Adaptation to Company's requirements	5%
CV being erased after job agreement	5%
CV's Translation	10%
CV's Receipt and Registration Confirmation	5%
E – learning Seminars for Enrichment of Workers s' Knowledge	5%
Tips for the Workers in the Interviews	5%
Advices	34%
Examples	33%
Proposed Bibliography	33%
Companies	15%
Access to companies information	30%
By Company it self	10%
By Employees of company	15%
By other employees	15%
By independent organizations (Unions, Career Consultant, State)	30%
By Job Site itself	30%
Link to Companies web site	15%
Direct Communication with the company	15%
e-mail	50%
sms	10%
Fax	20%

telephone	20%
Employee's impressions of their company	5%
Acquaintance With the Working place	5%
Comparison of Companies with Criteria Selected by the Workers	30%
A2. Recruiters	**50%**
Quantity of Workers who Search for jobs	30%
Workers' categories	30%
Per Study	30%
Per Experience	30%
Per Requirements	10%
Per Personal Data (Nationality, Religion, etc.)	10%
Per Residence's Place	10%
Per Gender	10%
Workers' Comparison	5%
Company's Publicity in the Central Page	15%
Existence of competitive companies in the site	5%
Briefing via e-mail	15%

Table 1. Job Market criteria

B. TECHNICAL	**25%**
B1. Interface	**25%**
Central Page	30%
Comprehensiveness	40%
Clear	25%
Attractiveness	35%
Use of Colors	15%
Quality	50%
Appealing	50%
Backgrounds	5%
Graphic and Multimedia (Sound, Video, Pictures)	15%
Tangible	20%
Attractiveness	20%
Quality	20%
Appealing	20%
Useful and Interesting	20%
Content	20%
Clear and Simple	25%
Comprehensible	25%
Grammatical Right	20%
Pages adapted to fit in Browser Window	5%
Awards	10%
B2. Reliability & Credibility	**25%**
Reputation	10%
Registration of Personal Data	5%
Profits from registration	10%
Appearance of Authors' Elements on Web page	10%
Renewal of Web page, Updated	10%
Report of Last Renewal's Date	5%
Report of the Site's Operational Date	5%
Report of Visitors' Number	10%
Report of Current Date	2%
Issues' Renewal	10%
Offers' Renewal	8%
Publicities' Renewal	7%
Enterprises 's Natural Elements	5%
After job services	3%
B3. Communications	**25%**
Communication On-line (chat rooms, Forums , etc)	25%
Communication via e – mail	30%
Communication via Telephone	10%
Communication via SMS	5%
Asked Frequent Questions – Answers (FAQ)	20%
Communication After the Agreement	10%
B4. Security & Privacy	**25%**
Security Systems for Data	25%
Security Systems for Payment	25%

Rules about how to use the site	25%
Reasons why I Should become Member	25%

Table 2. Technical criteria

C. Usability	**25%**
C1. Navigation	**50%**
Basic Navigation Buttons in Each Page	15%
Help Button	15%
Directives about the site's Operation	10%
Search Engine	30%
Easy to Use	40%
Comprehensible Results	40%
Possibility to Storage the Results	20%
Pages under Construction	10%
Site Map	20%
C2. Easy of Use	**50%**
Easy to find the Site	5%
Easy Access to Categories	5%
Return to Main Page	10%
Easy in the Menu	15%
Well organised with Reasonable Order Structured the Levels of the Site	15%
Links broken or under construction	10%
Registration's Facilities	20%
Abundance of Elements being asked	60%
Ways of Payment	40%
Money	10%
Credit Card	10%
Electronic Way	10%
Without Payment (free)	70%
Speed	15%
Pages' Loading	50%
Multimedia s' Loading	25%
Files download	25%

Table 3. Usability criteria

D. Social	**10%**
Possibility for Use by Special Needs persons	20%
Help for filling the Applications	15%
Gender Categorization	5%
Age Categorization	5%
Nationality Categorization	5%
Residence's Place Categorization	5%
Support of many Languages	10%
Possibility for Use by persons Without Special acquaintance with PCs	20%
Categorization by social problems	15%

Table 4. Social criteria