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# Online Resumes: Optimizing Design to Service Recruiters

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### Online Resumes: Optimizing Design to Service Recruiters

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## ONLINE RESUMES: OPTIMIZING DESIGN TO SERVICE RECRUITERS

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### Abstract

*Despite the increasing number of publications in e-Recruiting, there is still scant research on the specific requirements of online resume fields, in particular from the recruiters' perspective. In this paper, the fields for resume forms are investigated by analyzing literature, interviewing recruiters and systematically categorizing and content-analyzing the resume fields of the 40 largest Dutch e-Recruiting sites. The findings reflect the main categories currently used in online resume forms: current career status, desired job, education, work experience, extracurricular activities, skills and personal and contact information. These identified online resume fields are discussed in light of prior resume design literature and compared with resume requirements derived from interviewing recruiters. Recommendations for resume design theory and practice are proposed.*

*Keywords: e-Recruiting Requirement Analyses, Online Resume, e-Resume Form Design, Website Content Analysis.*

## 1 INTRODUCTION

Employee selection has been an important issue to academic researchers and practitioners in both the United States and in Europe (Anderson et al. 2004, Salgado 2001). Although the employment interview and its use in selection has attracted much attention from researchers (Huffcut et al. 1994, McDaniel et al. 1994, Huffcut et al. 2001) there is a major gap in research about specific requirements of online resume forms. The available literature on resume preparation, including resume construction, design and content, and (e)-Recruiting, stems largely from practitioner journals and books (Crosby 1999). Much of this data, however, is rather subjective and not supported by empirical research (Ross & Young, 2005). Also, most of the resume design literature is focused on the American context. Scant academic research in the European context is available. However, resume forms aimed at attracting employees other than American employees may require other design specifications due to different demographics, industries and laws affecting the job search and hiring process. Compared to research into applicants' perceptions on e-Recruiting (Dineen et al. 2007, Feldman & Klaas 2002), less research attention has been paid to recruiters' views (Zusman & Landis 2002). This is surprising since recruiters are the clients who usually have to pay for using commercial e-Recruiting services (Zhao 2006). Although the dominant perspective in human resource management research, and particularly in selection research, has been that of the organization and the recruiter (Anderson et al. 2004), their perceptions on resume field design have received little attention (Tong 2005).

Therefore, the purpose of this study is to fill this gap in the literature. Based on the available literature on resume design, and after interviewing recruiters and systematically categorizing and content-analyzing the resume fields of the 40 largest Dutch e-recruiting sites, we propose a new framework for resume design. We investigate which fields in online resume forms are significant from the recruiters' perspective and discuss how online resume fields and search functions may be complemented to improve the identification, assessment, and selection of relevant staff.

## 2 LITERATURE REVIEW

Recent developments in recruitment practices show that job applicants, as well as professional recruiters and organizations in need of personnel, are increasingly using the internet to advertise job postings and search applicant pools (Ross & Young 2005, Gueutal & Stone 2007). In the last decade, e-Recruiting spread around the globe. All Fortune 100 companies recruit via the internet and currently roughly 40,000 job boards exist (Lee 2005). In fact, e-Recruiting is one of the leading e-commerce applications as a method for quickly reaching a large pool of potential job seekers. Major advantages cited as related to the rapid and successful adoption of e-Recruiting methods include cost savings, efficiency, and convenience for both recruiters and job seekers (Cappelli 2001, Harrington 2002). A number of e-Recruiting sources are available for job seekers and recruiters, including commercial job boards, niche job boards, e-Recruiting consortia and corporate career websites. Commercial job boards are recruiting intermediaries between recruiters and job seekers (Lee 2005).

Reflecting on resume design research, a resume should represent a structured, professional profile or summary that showcases applicants' strengths, accomplishments, interests, skills, and work-related experiences (Ross & Young 2005). Recruiters use resume information to draw conclusions about an applicant's work-related skills, abilities, motivation, personality, and job fit (Cole et al. 2007). The resume is a critical tool for evaluating the potential qualifications of an applicant (Ross & Young 2005) and to determine who is invited for additional screening. The pre-screening of resumes is an important phase in personnel selection processes (Schmidt & Zimmerman 2004). Virtually every corporate website and commercial job board accepts online resume submissions via online forms and resume builders. Resumes are transmitted to an internal database to be used for automated candidate management (Lee 2005). The use of these resume databases has become very popular in recent years.

Despite the increased popularity, little research has been conducted on the design and effect of resume databases (Dipboye et al. 1984, Smith & Rupp 2004, Parry 2008). While most professionals agree that resumes are vital, there is much disagreement about resume design requirements, i.e., the specific content to be included in resume forms.

In the academic literature, Ross and Young (2005) comprehensively reviewed the resume design literature including journals, periodicals, and book publications. Their research revealed eight key resume categories: (1) career objectives, (2) educational record-college, (3) educational record-high school, (4) related work experience, (5) non-related work experience, (6) personal information, (7) professional and personal involvement, and (8) references. Based on the available literature on resume design, they derived 72 resume content items. While the research of Ross and Young provides a starting point for this paper's study, some limitations should be mentioned. Ross and Young's resume items have been tested with recruiters from the recreation and leisure services industry. It is unclear if these resume items are similarly relevant for other industries. Further, the research was undertaken in the American context with US recruiters only. Recruiters from other countries or industries other than recreation and leisure services will most likely demand adjustment of the current categorization of resume items. However, most general job boards provide one standardized resume form to be filled out by all applicants regardless of age, gender, culture, or industry. Sorting out applicants quickly, without screening out good candidates poses a time-consuming challenge in recruitment. The Web makes it easy for job seekers to apply for many jobs in a short time period. This has the effect that applicant pools and job boards tend to inundate companies with large volumes of resumes, many from unqualified applicants (Cappelli 2001). This literature review clearly shows that more research in resume design is needed. Therefore, we investigate the following research question: "What are the information requirements of online resume forms from the recruiters' perspective?" In order to answer the main research question, three sub-questions are studied.

1. How can the fields used in online resume forms be systematically clustered?
2. Which fields in online resume forms are significant from the recruiters' perspective?
3. How can online resume fields and search functions be complemented to improve recruiters' identification of relevant staff?

### **3 RESEARCH METHOD**

To start answering this paper's research questions, the requirements for resume forms are examined by applying a mixed methods approach, i.e., analyzing literature, interviewing recruiters and systematically categorizing and content-analyzing the resume fields of the 40 largest Dutch e-Recruiting sites. In order to gain a wider perspective and understanding of requirements for resume design, it seemed reasonable to compare the design of resume forms on existing e-Recruiting sites with literature and interview data. This mixed methods approach contributes to theory and practice by offering a more comprehensive understanding on resume design.

#### **3.1 Interviewing recruiters**

Involving end-users (such as users of e-Recruiting sites, i.e. recruiters) in system design has frequently been argued to be a critical factor in the successful implementation and operation of information systems (Patton 2002). Several IS researchers have argued that the direct interview remains the best elicitation technique for requirements analysis (Alvarez & Urla 2002). For eliciting requirements of resume forms, data was collected by interviewing seven recruiters at a career fair and ten recruiters online. The seventeen recruiters consisted of twelve females and five males from 22 to 37 years of age (average 30 years). The recruiters had between one and 15 years (average 5 years) of professional experience. Four recruiters work for banks, four in finance and accounting, three for an IT companies,

three for technical companies, one in utilities, and two work for commercial recruiting agencies. The interview questions were pilot-tested and included mostly open-ended questions. Recruiters were inquired about important resume fields and fields that should be added to current online resumes, important search options and search functions they felt were lacking. During the interviews at career fairs, the interviewer first observed the recruiters and made sure to only approach them when they were standing alone, waiting for potential applicants, and appearing to have time. The average interview took about 15 minutes. In most cases it was not possible to interview the recruiters longer since applicants came and waited to talk with them. While a tape recorder was taken to the interviews, the noisy environment at the career fairs led the interviewer to instead take comprehensive field notes during and after each interview. For the online interviews, email addresses of recruiters were searched for in job ads at Dutch e-Recruiting websites. An invitation to fill out the survey was sent to 55 recruiters who are active on e-Recruiting websites. Ten recruiters (18%) responded and filled out the online survey form, which comprised the same questions as the ones used at the career fairs.

### **3.2 Data-analyses of e-Recruiting websites**

For this research, the 40 largest Dutch e-Recruiting sites were chosen (Cappelli 2001). We selected the largest sites since these attract a wide variety of different applicant groups, and therefore should represent the state-of-the-art of resume design in practice. Because there were some notable differences between the resume forms at general sites and those of students (part-time jobs, internships, seasonal jobs), we analyzed these differences in more detail. In the analysis process, we first familiarized ourselves with all sites by visiting the sites, and carefully reading and comparing the different resume fields across the sites. Then we wrote down every resume category including fields, field type and input options. Differences in labeling and categorization were discussed between the two coders. After the classification of the resume categories, the fields from all recruiting sites were categorized and a resume content framework was derived.

To control how many websites we needed to analyze to reach code saturation of resume fields, we documented the progression of resume field identification after each website. Code saturation was reached by analyzing 14 e-Recruiting sites. In total, 114 resume fields were identified, all of which have been used in at least one website. Of these attributes, 78 fields (68%) were identified within the first two websites. An additional 36 attributes were identified in the next twelve websites. After the fourteenth website, no new fields were discovered. A distinct resume content framework has been coded for students' e-Recruiting sites. In this case, code saturation was achieved earlier (after analyzing seven sites) than on general job sites. In sum, 40 resume fields (70%) that are suitable for student resume forms were identified in the first two websites. In the next two websites, 14 additional attributes were identified, for a cumulative total of 54, or 95% of all attributes of the framework. The three remaining attributes were found in the fifth and sixth websites. By controlling code saturation of resume fields, we can infer that our findings apply to the larger context to resume design practices of Dutch e-Recruiting websites.

## **4 RESULTS**

The results are presented in two main sections. First, the main findings emerging from the interviews with recruiters in regard to resume design are displayed (4.1). Then, we present the results of the website analyses on Dutch e-Recruiting sites including our proposed resume framework (4.2).

### **4.1 Recruiters' preferences**

The interviews with recruiters were useful to gain insight into their usage of e-Recruiting sites, and helped to get a first impression of recruiters' perspectives regarding important resume and search fields. Applicants' education and years of professional work experience were mentioned as highly

important resume criteria by seven of the 17 recruiters. Further, they frequently mentioned extracurricular activities (6 times), ambitions (six times), personality (five times), hobbies and interests, desired job, phone number, and personal information. Four recruiters were satisfied with the current e-Recruiting websites and thought that nothing was missing. Two of these recruiters said something to the effect of: "There are too many fields in a resume. I only want to know their name, address, education and work experience". Another recruiter said: "I see no need for additions because then it would be even less manageable and would take away more administrative time". One recruiter mentioned: "I only want to the point: work experiences, not paper filling! I get impatient when I see a similar job listed five times". One recruiter found it very important that resumes should be easily readable. Another recruiter wanted to know why an applicant left the previous job. Further, one stated: "Before an applicant gets invited for a job interview, the applicant has to do an analytical and mathematical test online". Three recruiters requested the inclusion of phone numbers so that they could immediately call and talk to a potential applicant, before another employer makes contact. Two recruiters found the highest education level highly important. Two recruiters mentioned the importance of business courses or training. One recruiter wanted to know how quickly an applicant finished their education.

Further, recruiters identified several search criteria they find highly important for filtering online resumes. The most important criterion to search resumes in e-Recruiting sites is years of professional work experience. Eleven of the 17 recruiters (65%) mentioned that one of their first search criteria is years of work experience. Nine recruiters (53%) said they search suitable applicants by searching for job titles, or synonyms of that job title or similar jobs. Further, six recruiters prefer to recruit applicants who live close to their company location. Six of the recruiters tend to search for education level, such as Bachelor or Master. Surprisingly, only four interviewees expressed an interest in searching for the exact field of education. One recruiter claimed: "It is more important to know how easily someone can learn something new, something other than what he already knows. Most of the learned knowledge is either outdated or used differently in the company". Three recruiters like to search for industry or branch type. This finding is supported by the following quote: "Sometimes a job title has multiple meanings, like an architect can design buildings or computer software". Three of the recruiters explained that they want as many suitable applicants as possible, and then want to manually check all resume forms of the applicants. Six recruiters said that it largely depends on the position to determine what resume design and search criteria are important. In this context, two IT recruiters mentioned that additional criteria could be expertise or years of experience with a specific programming language. Two recruiters search for applicants with a certain career level. One recruiter suggested filtering out applicants who are not actively seeking a job. Another recruiter requested the ability to filter out applicants who do not want to travel. One recruiter wanted to search applicants who indicated as their desired salary a similar salary to that offered by the hiring organization.

#### **4.2 Website analysis**

The categorization of resume fields has been inductively developed by analyzing the 40 largest Dutch e-Recruiting sites. While the recruiting sites have many overlaps between the resume categories and subfields, the sites differ in several fields, labeling and extensiveness of resume fields. For instance, some sites include a field only for the most recent professional work experience while others provide the option to fill in multiple work experiences. The most common labels and input options derived from the sites are classified according to categories. Every resume category is presented in a box, with the title and cardinality shown in the table header. The cardinality shows how many times the box can be filled in. For example an applicant can fill in no work experience, or multiple work experiences (0..\*). Personal information can only be filled in once (1). Further, the fields (attributes) and their field types and input options are given. The type of the field is included if this is not a text field (for example Select). "Select" means that the applicant has to select an option from a drop-down menu; the options are given in brackets. Based on our literature review, the e-recruiting website analysis, and interviews with recruiters, we derived the following resume design framework.

Current Status	Cardinality: 1
-CareerStatus:Select (actively looking for a job, open to new opportunities, exploring careers) -CurrentOrLastJobTitle -CurrentOrLastEmployer -CurrentOrLastSalary:Amount:Integer, Period:Select (hour,day,month,year), Currency:Select -Industry:Select -CareerLevel:Select (high school, bachelor, master, entry level, experienced (non-manager), experienced (manager), manager, executive, senior executive) -EducationLevel:Select -YearsOfProfessionalWorkExperience	

DesiredJob	Cardinality: 1
-Description:Textbox -MinimumSalary:Amount:Integer, Period:Select (hour,day,month,year), Currency:Select -MaximumSalary:Amount:Integer, Period:Select (hour,day,month,year), Currency:Select -Industries:Checkboxes -BusinessArea:Checkboxes -JobTitlesYouWant:Checkboxes -JobTitlesYouDontWant:Checkboxes -JobStatus:Checkboxes (fulltime, part-time, per-diem) -JobType:Checkboxes (Employee, Temporary, Internship, Seasonal, Volunteer) -MinimumHoursPerWeek:Integer -MaximumHoursPerWeek:Integer -StartAvailability:Date -EndAvailability:Date -CompaniesWhereYouWantToWork:Checkboxes -CompaniesWhereYouDontWantToWork:Checkboxes -FringeBenefits:Textbox -MinimumCompanySize:Integer -MaximumCompanySize:Integer -MinimumEducationLevel:Select -MaxDaysPerMonthAwayFromHome:Integer -DiversityPolicy:Checkboxes (job for person older than 45, disabled person, foreigners) -PreparedToMove:Checkbox -DesiredLocations:Multiple Country:Select, Province:Select, Place, WorkJurisdiction:Checkbox -TravelDistance:Integer	

Education (Highest – current and previous )	Cardinality: 1..*
-EducationLevel:Select (high school/bachelor/master) -Category:Select -FieldOfStudy -Diploma:Checkbox -InstitutionName -Country:Select -City -Description:Textbox -InternshipExperience:Textbox -StartDate:Date -(Expected)EndDate:Date	

WorkExperience	Cardinality: 0..*
-JobTitle:Select -CompanyName -Industry:Select -BusinessArea:Select -City -Country:Select -StartDate:Date -EndDate:Date -CurrentPosition:Checkbox -JobDescription:Textbox -JobResponsibilities:Textbox -AchievementsAndAccomplishments:Textbox -PartTime:Checkbox -LearnedSkills:Textbox -SupervisoryPosition:Checkbox	

Skills	Cardinality: 1
-ComputerSkills:Multiple Skill:Select, ExperienceLevel:Select (beginner, intermediate, advanced, expert) -BusinessSkills:Multiple Skill:Select, ExperienceLevel:Select (beginner, intermediate, advanced, expert) -Languages:Multiple Language:Select, Level:Select (Beginner/Intermediate/Advanced/Fluent) -DriversLicence: Checkboxes (Motor/PassengerCar/CarTrailer/Truck/Bus/BusTrailer) -Skills:Textbox	

Resume	Cardinality: 1
-ResumeTitle -Date:Date	

ExtracurricularActivities	Cardinality: 1
-Memberships:Multiple StartDate:Date, EndDate:Date, OrganisationName, OrganisationDescription:Textbox, Activities:Textbox -Careerhighlights:Multiple StartDate:Date, EndDate:Date, Description:Textbox -HonorsAndAwards:Multiple StartDate:Date, EndDate:Date, Description:Textbox -ProfessionalPresentations:Multiple Date:Date, Description:Textbox -ProfessionalPublications:Multiple Date:Date, Description:Textbox -HobbiesAndInterests:Textbox	

PersonalInformation	Cardinality: 1
-Title -FirstName -MiddleName -LastName -Personality:Textbox	



<b>Certificate</b>	Cardinality: 0..*
-CertificationName -InstitutionName -Location -StartDate:Date -EndDateOrDateOfReceipt:Date -RequiredEducationLevel:Select -Description:Textbox	

<b>ContactInformation</b>	Cardinality: 1
-Street -HouseNumber -PostalCode -City -Province -Country:Select -TelephoneNumber -MobileTelephoneNumber -EmailAddress -AlternateEmailAddress -ContactPreference:Select (phone/mobile phone/email)	

<b>CareerGoal</b>	Cardinality: 1
-DesiredCareerLevel:Select -DesiredSalary:Amount:Integer, Period:Select (hour,day,month,year), Currency:Select -Industry:Select -CompanySize -CompanyType (public/private/non-profit/government) -WhatDoYouFindImportant:Textbox -Companies:Textbox -FringeBenefits:Textbox -SkillsToDevelop:Textbox	

Table 2. Recommended resume design framework

## 5 DISCUSSION

In this section, we discuss the differences of resume fields based on our interview results, the recruiting website analysis, and extant literature. We also show differences in resume fields between general resume forms and student resume forms.

### 5.1 Resume fields

#### Current career status

We found that recruiters first want to filter for years of experience, job title(s), education level and the region of the applicant. This complies with the “current career status” category, which is used as search filter as well as to get a quick overview. Only if recruiters are interested in the rough resume profile, will they read the rest of the resume.

#### Desired job

The survey by Ross and Young (2005) conducted with leisure and service recruiters shows that an objective statement is very important. They suggest including a brief but specific objective statement identifying the type of position the candidate is seeking in resumes. This could be either job focused or career focused. However, our interview results and the website analysis show that a brief objective statement is not satisfying recruiters’ needs. Recruiters need more detailed information about applicants when the recruiter uses resume database search functions. In this case, applicants do not directly apply to the recruiters’ job ad, instead recruiters themselves assume the proactive role in searching for suitable candidates in resume pools. Naturally, applicants only apply to job ads when they know the job description and the hiring company. This implies that applicants take the proactive role, and can decide themselves before applying if the job and company fit their requirements. When recruiters use resume databases to filter for the best-fitting applicants for their advertised jobs, this poses several challenges. In all likelihood, the chosen applicant is by this time no longer available and has found a job elsewhere, or the applicant found the company or job description unattractive, and consequently does not respond to the recruiter’s invitation for an interview. In our interviews with recruiters, we found that recruiters, if using resume databases, desire an extra resume category, which we have labeled desired job. In the desired job section, the applicant should at least fill in when he or

she is available to start a new job, preferred job titles, industries, companies, salary, and hours per week he or she wants to work. Also, location is important, some recruiters want to be given information on the work commuting distance from the applicant's home address, or eventually relocation in order to judge feasibility. We recommend including the applicants' availability, start date and possibly an end date (for seasonal jobs, internships). If a website also offers international jobs, the desired salary should also take currency into account (select currency from a list).

### **Education**

A significant number of researchers (Knouse 1994, Ross & Young 2005, Lee 2005) agree with our interviewed recruiters that educational experience is an essential component of a good resume. The resume reader, i.e., recruiter, may use this section to match educational accomplishments of the applicant with job requirements. The applicants' competence may be further discerned from the reputation of schools attended (e.g., a prestigious private school versus a regional or state university) and the field of study. Moreover, one may even attempt to discern the motivational level of the applicant in terms of length of duration of study. Degrees received and dates when degrees were conferred should be included under the education section in reverse chronological order. The most suitable education to be included in resumes should be either university/college or high school level. Crosby (1999) suggests that high school educational information should be included for applicants who apply for internships or student projects, and recent graduates. Hutchinsons and Brefka (1997) indicate that there is little value in listing high school information unless it is the applicants' sole educational experience or directly related to the open position. Researchers have suggested that the frequent use of grade point average (GPA) is due to recruiters' beliefs that GPA partially reflects an applicants' intelligence, motivation, and other abilities needed on the job (Roth & Bobko 2000). Hutchinsons and Brefka (1997) however, state that information such as grade point average (GPA) and class rank are relatively unimportant. Recruiters will attribute more weight to entry-level applicants' academic qualifications (Cole et al. 2007). For experienced professionals, recruiters will put more emphasis on previous work experiences. Ross and Young (2005) differentiate between college experience and high school experience. From college experience, field of study, internship experience, major area of study, type of degree earned and date of graduation are rated as very important (Ross & Young 2005). Name of college attended, honors and awards, participation in campus organizations, grade point average in major, grade point average overall, list of college courses taken, transcripts, participation in athletics and class rank were rated as somewhat important. For high school, honors and awards, date of graduation, and activities in high school are rated somewhat important, and name of high school attended, participation in athletics, grade point average and class rank are rated as not important.

### **Work experience**

The work experience section may be the most important part of a resume. In this section, job titles, major duties and responsibilities of the jobs listed by the applicant can be compared with the requirements of the job to which an applicant applies (Hutchinsons & Brefka 1997). Ross and Young (2005) found job responsibilities, dates of employment, position title, achievements and accomplishments, reason for leaving, name of employer, name of supervisor, part-time or full-time status, location of employer and salary very important. Cole et al. (2007) found that individual job achievements, holding a supervisory position, full-time work experience, and internship experience provide significant information to hiring managers. Although Augustin (1991) recommends including full- and part-time jobs as well as related and non-related work experiences, Ryan (1997) suggests including only work experiences that are most meaningful and directly related to the position sought. Project-based teams and more flexible assignments are eroding the tradition of clearly defined jobs with position titles that convey meaning outside particular work groups and companies, hence, it is important to have descriptions and titles for open jobs that will be understood by employers.

In our recruiting website analyses, we found that some sites require applicants to only fill in the most recent or current work experience. This finding also corresponds with our interview results: Four

recruiters mentioned that resumes should be easily readable and should not be overloaded with information. If a site enables filling in multiple experiences, then the most recent or current relevant work experience related to the desired job should be clearly indicated. Based on the literature, recruiting websites should include a checkbox so applicants can see if a job is full-time or part-time. Also, an applicant's prior responsibilities and achievements should be collected. Both literature and interviews show the high importance of job titles. The current recruiting websites force recruiters to try a lot of different job titles since many job titles are used for similar work (software engineer, software developer, programmer). Also some job titles like architect can have multiple meanings, e.g., an architect for designing houses or a software architect for designing computer programs. It is therefore very important that job titles are clearly defined (Alvarez & Urla 2002) and recruiting sites should take synonyms into account. We therefore recommended standardizing and carefully categorizing job titles.

### **Extracurricular activities**

Cole et al (2007), Brown and Campion (1995) as well as our interviewed recruiters consider extracurricular activities the third most important section of the resume. These activities include memberships in professional societies, memberships in college clubs, holding elected offices, memberships in social fraternities or sororities, and voluntary community activities (Cole et al. 2007). The number of activities, type of activities (i.e., professional vs. social), and number of leadership positions held influence an applicant's leadership capabilities, interpersonal skills, and motivational qualities. Given that most entry-level applicants' prior work experience is either limited or non-existent (Kinicki & Lockwood 1985), recruiters are likely to focus more on applicants' academic qualifications and extracurricular activities. Ross and Young (2005) label this category "personal and professional involvement", and find it should include, in order of importance: certifications, professional organizations, community involvement, professional presentations delivered, professional conferences attended, and professional publications. All of these are considered very important, and hobbies are considered somewhat important. However, four of our 17 interviewed recruiters considered hobbies highly important. The resume design literature finds the applicants' prior positions held in extracurricular activities to be very important. This information should be included in resume forms. Collecting information about extracurricular activities could be more structured, for example by enabling applicants to fill in separate experiences, like in the education and work experience sections. For each experience the date (for publication or presentation) or period (for community involvement and memberships) should be stated.

### **Skills**

The online resume forms of the 40 Dutch recruiting sites require applicants to fill in only standard skills. For instance, in regard to computer skills, only knowledge of Microsoft Office such as Outlook, Word, Excel, PowerPoint and Access are specifically listed in the Dutch resume forms. Certainly, these rough skill lists need to be extended so as to more comprehensively reflect an applicant's computer skills. For instance, programs like AutoCAD, Photoshop or other industry specific software and programming languages need to be included. An indication of level of experience (beginner, intermediate, advanced, expert) would strengthen the readability of the skills section. Two recruiters in IT state that information on applicants' detailed programming languages and experience level is needed. Ontology-based skill databases need to be integrated in human resource information systems to systematically match language skills, software skills, business skills, law skills, project management skills etc with the open position.

### **Personal and Contact Information**

The inclusion of personal information, such as age, gender, ethnicity, marital status and a photograph is seen as being at the discretion of the applicant perhaps to be excluded (Ryan 1997). Over time, fewer employers indicated that personal information is desirable in resumes. Similarly, Hutchinson and Brefka (1997) found that inclusion of personal information was considered to be unimportant, and some respondents pointed out that such information would be "struck out" for legal reasons. Holley et

al. (1998) discovered that over half of the applicants for Director of Personnel positions provided their marital status, and large numbers indicated their age and number of children in their resumes. These researchers suggest that, as prospective employers are barred from requesting certain types of information, some employers may prefer not to receive such information due to fears of discrimination claims. Personal information is usually supplied by job applicants to enhance their chances of obtaining an interview (Hill 1995) even though such information has also been found to create discriminatory evaluations in pre-selection decisions (Oliphant & Alexander 1980, Bennington & Wein 2002). It is possible, too, that some applicants believe that they are required to provide personal information in their resumes; they may be unaware that antidiscrimination legislation, in some countries, makes it illegal for employers to base decisions on such information (Fournier & Spin 1999).

Ross and Young (2005) identified a telephone number as essential information in resumes. Also three of our interviewed recruiters requested the inclusion of phone numbers so that they could immediately call and talk to a potential applicant before another employer makes contact. The current permanent address is seen as very important, while fax and social security number are somewhat important. Age, military experience, birth date, gender, marital status, word "resume" as title of resume, number of dependents, birth place, photograph and ethnicity were rated not important by Ross and Young (2005). Whereas Monsterboard.nl, a US e-Recruiting website, does not require applicants to fill in personal information like gender or birth date, all other analyzed e-recruiting sites require applicants to fill in gender and birth date. Stepstone.nl, a Norwegian site, even demands information about nationality. Further, werkenbijdeoverheid.nl, a Dutch site, asks for marital status. Similarly, one of our interviewed recruiters stated: "As a recruiter, you want to know everything you can about any potential applicant". Yet, most resume forms let the applicant choose to show or hide personal and contact information to potential employers. In case of a full anonymous resume (a resume without personal and contact information), recruiters can get into contact with applicants by anonymous mail. Also the applicant can choose not to include resume information in resume databases. In such cases, applicants can manually send in online resumes when applying to a job ad. Nuwerk.nl gives the option to explicitly include or exclude companies from seeing the resume profile. In this way, applicants can assure that, for instance, current bosses cannot find them. We conclude that since employers are prohibited to select employees based on gender, birth date, nationality or marital status, online resume forms should not ask for this personal information.

## References

Ross and Young (2005) have found overwhelming agreement in academic (i.e. Hutchinson and Brefka 1997) and practitioner literature that neither references, nor even the statement "references available on request" should be included in the resume. Ross and Young (2005) identified references from previous employers as very important, and teachers as references, complete reference citations, reference letters attached and references available on request as somewhat important, and relatives as references as not important. As an alternative to including references in the resume, Fournier & Spin (1999) and Besoon (1999) preferred that a separate list of references be sent to the prospective employer only when the candidate becomes a finalist for the position. In our website analyses, only one website asked applicants for references. Similarly, none of the interviewed recruiters expressed the need for references.

## 6 CONCLUSIONS

This paper addresses requirements of online resume forms. We conducted interviews with 17 full-time recruiters and content-analyzed the resume forms of the 40 largest Dutch e-Recruiting sites. The content-analysis provided insights into the state-of-the-art practical realization of content items used in resume forms. These current practices were compared with extant resume design literature and concepts emerging from interviewing recruiters. Based on this multi-method approach, recommendations for resume design theory and practice have been made. Consequently, our research

is useful for managers and designers of online resume forms, recruiters, applicants and academics doing e-Recruiting research. We also developed a resume field framework, which includes the following categories: current career status, desired job, education, work experience, extracurricular activities, skills, personal information and contact information. Our research provides two new resume fields beyond what is found in existing academic literature: "current status" and "desired job". Both categories provide significant information for recruiters using resume databases. "Current career status" makes it virtually effortless to quickly sort out applicants that are not suitable for the open position, and "desired job" gives the recruiter information as to whether an applicant would be actually interested in an offered job vacancy. This study is not without limitation. Quantitative research involving a larger sample of recruiters would be needed to study our identified resume categories in a more comprehensive way. Furthermore, our suggested resume framework may need revision depending on branch and industry type of e-recruiting services. Also, this research focused on analyzing Dutch e-Recruiting sites and interviews with Dutch recruiters, however resume preferences and resume fields may be categorized differently in other cultures.

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