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ON-LINE STUDENT SKILLS PORTFOLIOS TO COMPLEMENT STUDENT TRANSCRIPTS

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Abstract:
When evaluating job applications, prospective employers may look at the college transcripts of the applicant to assess the qualifications of the potential future employee. Transcripts only tell part of the story, however. While transcripts show the names of courses the student has taken and letter grades, they do not show the specific skills that the student developed and applied during his or her college career. This descriptive case study reports on the development of on-line student skills portfolios to complement student transcripts, using social media.

Keywords: skills set, skills portfolio, social media

I. INTRODUCTION
When evaluating job applications, prospective employers may look at the college transcripts of the applicant to assess the qualifications of the potential future employee. Transcripts only tell part of the story, however. While transcripts show the names of courses the student has taken and letter grades, they do not show the specific skills that the student developed and applied during his or her college career. Neither the course names nor the name of the degree will tell a prospective employer enough about what a student has learned or can actually do, to make an informed hiring decision.

A primary objective of the undergraduate curriculum in information systems is to prepare students for careers in information systems and technology. This includes an ability to use current techniques, skills, and tools necessary for computing practice. To accomplish this, each course in the information systems major targets specific knowledge and skills for the students to acquire, where some of these skills are acquired by the creation of specific artifacts pertinent to the learning objectives of the course. These learning outcomes are not typically evident in the transcripts.

One way for information systems students or graduates to show what they have learned during the course of their study is to create student portfolios. Just as artists and art students are expected to show prospective clients or employers portfolios of their work, information systems students may present portfolios of the artifacts that they have created in the various courses they have taken (Office of Research 1993, Powell and Jankovitch 1998). Such artifacts may include specific graphical models, like UML diagrams or data models, specific programs they have written, or reports, like a system proposal created in a systems analysis class.

As more and more personal and business communication and interaction is conducted through digital media, and as most students typically are already active participants on social media, such as Facebook and Twitter, creating student skills portfolios on social media seems to suggest itself. Since these portfolios are to be viewed by potential employers though, who are more likely to be on LinkedIn than on Facebook, LinkedIn would seem the obvious medium for this purpose (Waldman 2013).
II. ON-LINE STUDENT PORTFOLIOS AT VCU

Motivation
At Virginia Commonwealth University, an additional impetus for promoting the creation of student skills portfolios came from the recent reaccreditation process of our undergraduate information systems program by ABET. ABET requires not only the specification of program educational learning objectives and student outcomes, but also evidence of ongoing assessment and continuous improvement (ABET 2013). The reaccreditation process forced us to carefully look at our specified learning objectives and student outcomes, as well as at how to effectively assess student performance. Furthermore, our information systems programs advisory board, constituted from local area organizations' chief information officers, felt strongly that our students and graduates should be able to show, not just tell, recruiters and hiring managers what they are capable of doing. Though perhaps not yet seen as common practice, employers seem to show increasing interest in viewing on-line portfolios of prospective new hires (Yu 2012).

Concept and Planning
Though it was discussed to host the portfolios on a University server, the decision was made to go with a public social medium, that would make the portfolios independent from the University and thereby relieve the Department from ongoing monitoring and content responsibility. And as mentioned earlier in this paper, most students are already familiar with social media such as Facebook, and therefore would likely feel comfortable with this. LinkedIn was chosen as the medium, as that is the medium that many professionals and businesses use and that the prospective employers would likely be most comfortable with (Waldman 2013). The concept adopted by the Department was to encourage students to create their own portfolios. Students would be the sole owners of their on-line portfolios, and they would be exclusively responsible for any content. In this endeavor, the Department would help students by identifying specific brand skills for individual courses, as well as artifacts that students typically create in these courses. Furthermore, help sessions would be provided for students to support their creation of individual portfolios.

Identification of Brand Skills and Artifacts for Individual Courses
Brand skills are industry-known and marketable skills that information systems undergraduate students would normally attain by taking specific courses. The purpose of identifying the skills associated with specific courses taught in the Department and making lists of these skills available to the students is to help the students decide on the appropriate skills to list on their individual portfolios, based on the courses they have taken.

Artifacts are industry-known deliverables produced in specific assignments and projects in some information systems courses. The purpose of identifying the artifacts typically produced in certain courses and making lists of these artifacts available to the students is to enable students to decide on the appropriate artifacts they should highlight in their portfolios to make prospective employers aware of experience they, the students, already have obtained.

Course syllabi typically include course descriptions complete with learning objectives and desired outcomes, as well course assessment methods (viz. assignments and projects). Thus, for each course a draft list of skills was created based on the specified learning objectives in the syllabus, and an initial list of artifacts was created based on the assignments and projects specified in the syllabus. Faculty members designated as course coordinators, together with other faculty members commonly teaching these courses, then revised these initial lists of skills and artifacts to arrive at final lists that represent what is being taught in these courses.

Advising Sessions with Students
Students were informed about the project and were invited to schedule one-on-one advising sessions to discuss how to build their portfolios, and how and why to use specific features on LinkedIn. Students
were also advised on the limitations and advantages of a traditional resume or personal website vs. LinkedIn as a means of showcasing their skills.

**Creation of Portfolios on LinkedIn**

The main LinkedIn sections that were highlighted for this project include:

**Education**

For students or graduates just getting started with their professional careers, their education is going to be their strongest selling point. LinkedIn allows for expanded details, such as a description of the program, activities and organizations, courses, and even grades to be incorporated in the profile.

**Skills**

This section consists of specific key words. Prospective employers often search for specific desired skill sets using these key words. Each course is associated with specific skills targeted for development, and students can review the course and skills chart to determine if they do possess the skills in question for any classes completed or in progress. If they decide that they do have a specific skill, it can be added to their LinkedIn profile. Note that there is no place for individuals to include a proficiency level with any particular skill; however, individuals can be "endorsed" for skills by their connections. The number of endorsements, as well as the endorser, shows next to the particular skill. As the number of endorsements grows, the credibility of that person in fact possessing this skill increases.

**Projects**

This section allows students to “show” not just “tell” what they have accomplished. Artifacts produced in their courses can be uploaded, along with a brief description of the project.

**Honors and Awards**

This section allows students to showcase special accomplishments, whether academic, service or social, along with a brief description of the honor or award.

**Interests and Activities**

There has been much discussion about how much personal information should be included in one’s LinkedIn profile. This is a valid question, but it is important to note that including your interests can serve several different purposes. 1) Organizations don’t hire skills. People hire people with skills, who will fit in with the culture of the organization, and the other people there. Including your interests allows you to show that you are an entire person. 2) Interests can serve as “ice breakers” or conversation starters in an interview setting. 3) Interests can serve as a genuine connection point with others who share that interest.

**III. DISCUSSION**

**Where are we now?**

As of the end of July 2015, a total of 84 students completed portfolio-advising appointments. Overall, slightly over 25% of seniors, 35% of juniors, and 20% of certificate students participated. (Certificate students are students with an undergraduate degree in an area other than information systems, that want to migrate into the information systems profession; these students take the same core undergraduate information systems courses as the undergraduate majors, but they do not have to take the general business core and elective courses).

The enthusiasm level on the part of the students varied, with some being strongly motivated to improve their profile, but others seemed indifferent. This perhaps is not entirely surprising, as an on-line skills portfolio is still a new concept to many students (Woodley and Sims 2011). Non-traditional students, already working full-time, generally were already well versed in LinkedIn, but others not so. 20 students were no-shows, after making an advising appointment.

**Support from Advisory Board**
The Information Systems Department at Virginia Commonwealth University has its own advisory board, consisting of Chief Information Officers in the Richmond area. This Information Systems Advisory Board meets regularly and advises the Department on the needs of the business community and on continuous improvement of our programs (undergraduate and graduate). The Advisory Board has two sub-committees, one focusing on the undergraduate and one focusing on the graduate programs, and works closely with Department faculty members and advises on the program objectives. The Advisory Board was party to the decision and planning of the on-line skills portfolio initiative and is continually reviewing its progress, together with the Department faculty.

Advantages and Disadvantages

LinkedIn Limitations

The project section on LinkedIn will only point to one URL and one file – not a folder with multiple files – at a time. Files must be stored in a format and in a place to which it is reasonable to assume the general public would have access. File sharing sites such as Google Drive or Dropbox are acceptable for this purpose, and offer ample storage at minimal or no cost. Files that link to a secured database that requires a sign-in to access defeat the purpose. Likewise, proprietary or specialized software applications required to run the program are also self-defeating. Files are linked via sharing the URL where it is stored. The link allows only one URL to be shared per project. Thus, if a student wishes to showcase, for example, an assignment that consists of a Word document, an Excel spreadsheet, and a Visio diagram, s/he would have to either a) choose which file is most illustrative of the project; b) split the project into several different projects, each with its own file link; or c) find a way to combine all three files into one and share that link. Alternatively, one could store each file in a project folder and list each file’s specific URL in a document, then upload that document as the master file.

Limitations of Traditional Resumes and Personal Websites

Traditional resumes are generally limited to one or two pages, which may not be a big problem for a student just getting started in a professional career. Resumes are text-based and thus do not allow to illustrate how a particular skill has been applied or a responsibility fulfilled. Resumes are non-interactive, static documents, not conducive to searching. Automated resume reading tools, which are increasingly being used by employers for initial screening, further complicate the process. These tools screen for particular key words, which – if not present – will result in a resume or application not being considered. Preparing a resume to accommodate these programs makes customization – and thus the ability to make one’s resume stand out from others – difficult at best.

Personal websites are customizable and can be organized as desired. They pose virtually no limitation on size and can be made to be interactive and easily searchable. However, they tend to remain hidden from most prospective employers – the likelihood of a hiring company finding the personal website is low.

Control over Viewership and Customization

One advantage of LinkedIn versus a traditional resume is that it is on-line, available and searchable whenever anyone wishes to search, for whatever one wishes to search. The disadvantage of that continual availability is the lack of control over when your profile is being viewed or by whom. In this regard, the traditional resume has the advantage of being easily customizable for a specific job posting. As it is highly unlikely that one’s resume will be found, even if posted on a resume site, it is reasonable to assume that if someone is looking at a resume it has been sent in response to a specific job posting. Most, if not all, job postings include a description of the duties and responsibilities for the position in question, as well as skills required. By virtue of electronic storage, it is now quite simple to customize a traditional resume and include only those key skills that are being targeted for the position in question, and the experiences that illustrate how one has performed duties similar to those in the position description. Skills may include identifiers such as “proficient in”, “working knowledge of”, etc.

In a traditional resume, one often sees a “data dump” of skills, consisting of every application or technology that the individual has used, with no level of proficiency included. While this is helpful with automated resume readers, it does not tell the prospective employer how or how well you have used that skill. This is precisely what the skills section on LinkedIn is meant to be. It should include every skill one
possesses, as one doesn’t know who will be looking for what, and when. If a hiring company is looking for a potential employee with specific skills, you want to be sure your profile is among those returned in a search. By linking the traditional resume, personal website if applicable, and LinkedIn profile, one can tailor the resume to the skills and responsibilities for a specific job posting, and showcase other skills and abilities, without losing the convenience and benefit of 24/7 availability.

LinkedIn Advantages
LinkedIn, like personal websites, provides 24/7 availability, interactivity, and virtually unlimited space. Unlike personal websites though, it is easily accessible to potential employers. LinkedIn has become the standard-bearer for professional networking, and the site of choice for recruiters and employers looking for talent. LinkedIn is easily searchable by industry, location, skills, education, and other categories. Recommendations and endorsements by others give additional credibility to postings.

Going Forward
The online skills portfolio project in a way is a pilot program in the School of Business at Virginia Commonwealth University. Throughout the (still ongoing) project, the Director of the School Career Services has been observing and providing advice. It is envisioned that other departments in the School of Business will start similar initiatives, after learning from our experience.

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