The FSU Online Career Portfolio Program (CPP): An Evaluation Report
Technical Report Number 35

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Executive Summary

The FSU Career Portfolio Program (CPP) was in development for five years before its launch in April 2002. This sustained effort can be attributed to several factors, including strong, committed leadership by the university president, the Career Center's Portfolio Task Force, and CPP staff; renewed national interest in the portfolio concept; a clearly written philosophy focusing on student development; technical support systems available at FSU in the AIS unit; numerous presentations to key university committees and advisory councils; and repeated solicitation of feedback from students, employers, and other groups. The successful development and launch of the CPP at FSU was the result of the presentation of a good idea, energetic and sustained leadership, and a critical mass of people, technical resources, and facilities.

A statement of CPP philosophy, along with specified design considerations and program and student outcome goals, were developed and served as guiding principles for development of the system. Nine generic life/career skills were specified and these were reviewed by a variety of university constituents. The CPP was launched in April 2002 and implemented immediately thereafter. Ongoing CPP implementation activities include outreach presentations, staff training, advertising, and consultation with FSU faculty and staff. CPP users, including students and those referred to the system, may begin by selecting one of three options for entry. Students entering the CPP have options to build, manage, or learn about skill building activities related to portfolio development.

A large number of process evaluation activities were undertaken during the development phase of the CPP, and other activities have been initiated since the CPP launch in April 2002. The portfolio staff was especially interested in obtaining feedback from student users in the early stages of CPP development beginning in July 2000 and continuing up to the formal CPP launch. Altogether, approximately 20 different groups participated in this process of evaluating the CPP and its various components. Since the formal launch, 16,048 students have initiated activity with the CPP, with 8,316 having an active career portfolio (accessed the CPP in the preceding year). Students from 17 different FSU colleges and schools (plus Undergraduate Studies) have used the CPP, with seniors (44%), juniors (14%), and graduate students (14%) participating most frequently. Women used the CPP at a rate of 55% and men 45%. The most frequently used skills in the CPP were communication, leadership, and creativity, while research/project development and life management were used least frequently. This section of the report includes information on how students used the artifacts and examples options, and the frequency of use of access keys for referred users.

Information relative to the impact of the program and the learner outcome goals identified earlier was collected. With respect to program goals, the data indicate that CPP is a comprehensive, Web-based system for helping students identify learning opportunities relevant to generic workforce skills sought by employers. Employers continue to indicate acceptance of the CPP and a willingness to use it in making hiring decisions. In addition, the visibility of the program has been established through eight refereed state, regional, and national presentations at professional conferences, several

publications, and Internet citations. Moreover, applications have been submitted by FSU for three patents related to the CPP, and information about the dissemination of the program has been created. With respect to learner outcome goals, data regarding the CPP were obtained from students and employers participating in a career portfolio contest in the fall 2003, and an average of 88% strongly agreed or agreed with positive statements related to the learner outcome goals. The Career Center's Portfolio Committee was pleased with the overall quality of the portfolios submitted by students. In addition to the contest, an electronic survey of students completing portfolios as part of course assignments was conducted. An average of 80% of survey student respondents agreed or strongly agreed with the positive statements related to the learner outcome goals for the CPP. It is concluded that a positive impact on program and learner outcome goals for the CPP has been achieved.

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Introduction

College students have used portfolios for many years. We most often hear of students using them in artistic fields, e.g., a portfolio of photographs or drawings. However, portfolios are increasingly being used today in other fields as well. Teachers may use a portfolio to show examples of lesson plans, lectures, or a statement of teaching philosophy. Job seekers have adopted portfolios to show potential employers examples of their work and to document accomplishments included on the résumé.

A special issue of the *Career Planning and Adult Development Journal* (Kimeldorf, Winter 1996-1997) focused on portfolios, with several articles discussing portfolio use in career development and the job search. In addition, several books have been published to assist job seekers in developing an employment or career portfolio (e.g., Bostaph & Vendeland, 2000; Kimeldorf, 1997; Williams & Hall, 1997). Portfolios are increasingly appearing in electronic formats because of advances in technology related to computers and the Internet. Young (2002) reported that "E-Portfolios" could be the next big thing in campus computing as more and more institutions are encouraging, even requiring, students to create portfolios to highlight their academic work and reflect upon their campus experiences. Young further noted that e-portfolios may breath new life into the academic advising process and help students breath new life into conceptualizing how discrete activities relate to more coherent life/career skills development.

In examining portfolio systems in higher education, one finds that they originate from different offices or departments on campus and have many different purposes (American Association of Higher Education's Portfolio Clearinghouse, June 2004). Institutions are developing student portfolios, faculty portfolios, and institutional portfolios (Cambridge, Kahn, Tomkins, & Yancey, 2001).

The FSU Career Portfolio Program (CPP) described in this report is used as a tool for identifying students' learning experiences that lead to the development of their desired skills, a collection point of students' accomplishments and skill documentation, and a potential marketing tool to be used when students seek further education or employment. This report generally follows the conceptual model (CIPP) described by Stufflebeam (1971). The CIPP acronym includes Context evaluation (e.g., history, needs, and resource assessment), Input evaluation (e.g., an evaluation of the resources and materials available for the intervention), Process evaluation (e.g., monitoring the development and implementation of the program), and Product evaluation (e.g., assessing the impact of the program in relation to its goals and the context).

Context Evaluation

The development of the FSU Career Portfolio Program took approximately five years from inception to campus-wide launch. Appendix A shows a timeline of key events in the project history prior to launch.

The impetus for development of the FSU Career Portfolio began in September 1997, following the Seminole Futures (FSU's bi-annual career exposition) luncheon when the President of the university, Talbot D'Alemberte, approached Jeff Garis and Robert Reardon of the Career Center regarding ideas to teach and/or certify the development of workforce skills in FSU graduates. Following this event, Reardon, in collaboration with Garis and staff members of the Center for the Study of Technology in Counseling and Career Development (Tech Center), wrote a concept proposal (Reardon, October 14, 1997) outlining some of the service delivery gaps, analyzing the causal factors, and proposing a career portfolio program. This document was followed with a more detailed memorandum (Reardon, February 17, 1998) from Reardon to the Commission on the Future, a strategic planning group appointed by President D'Alemberte. (Copies of these documents are available online at http://www.career.fsu.edu/portfolio/index.html.) Meanwhile, two students (Byron Folsom and Jill Lumsden) in Reardon's career development program design course in the Spring 1998 semester drafted proposals in response to a simulated RFP calling for the development and implementation of a career portfolio at FSU.

A formal proposal (May, 1998) to FSU by Garis described the development of a "Competency-Based Career Portfolio Program" utilizing the Success Skills 2000 program developed by Wilson Learning, Inc. The proposal featured the incorporation of the portfolio system into a course module of SDS 3340 Introduction to Career Development. In the meantime, another opportunity for funding arose, and a proposal was drafted in November, 1998, by Garis for submission to Northwestern Mutual Life Insurance Company for funding of an Electronic Career Portfolio and Planner. At the request of the Provost, this proposal was withdrawn due to concerns about corporate sponsorship of a university-wide web-based application.

In December 1998, Dr. Garis, co-chair of the Career Expert Users Group for the Florida Academic Counseling and Tracking for Students (FACTS), submitted a proposal for all career components of the FACTS system, including an online portfolio system for FACTS users.

In January, 1999, at the invitation to request internal funding from FSU, Garis submitted a budget request for expense and OPS funds, as well as an A&P line, to support the development and implementation of an online career portfolio program. The Career Center was provided with OPS funding in summer, 1999, along with technical and design support from Administrative Information Systems (AIS) to develop a portfolio system. Jill Lumsden was hired with OPS funds to begin research on portfolio systems to determine if FSU could use or adapt an existing system. (Lumsden was later employed in a permanent, full-time position.) Portfolio systems at major universities were reviewed,

including the University of Southern California (USC), Michigan State University, and the University of Oregon, as well as one developed by a private vendor, Bridges.com. It was determined that existing systems did not meet FSU's needs. The Career Center wanted to create a program with University-wide applications, and thus decided to develop a portfolio system specific to FSU, leveraging existing technology, i.e., the student online security system.

In August 1999, The Career Center established a Portfolio Task Force (now its permanent Portfolio Committee) to facilitate the development of an online portfolio system. The task force included Jill Lumsden, Assistant Director and staff project assistant; Jeff Garis, Director; Robert Reardon, Professor and Program Director; Janet Lenz, Associate Director of Career Advising, Counseling, and Programming; and Myrna (Unger) Hoover, Associate Director of Career Placement Services. A representative from Administrative Information Systems (AIS), Joe Clark, Coordinator of Computer Applications, was assigned to work on web design aspects. The task force met weekly to discuss the development of the FSU Career Portfolio. In December of 1999, the Career Center was given a full-time line to coordinate this project. Jill Lumsden was hired as Project Coordinator/Career Development Coordinator. Later, this Portfolio Task Force was expanded and additional Career Center staff members, including Britton Powers, Systems Coordinator, and Juliette McDonald, Associate Director of Career Experience Opportunities, joined the group. In the summer of 2000, Scott Arkin, Research Assistant/Web Designer, was employed to assist in portfolio design and development.

The Portfolio Task Force developed a prototype over a period of approximately 18 months. The prototype was shared with administrators, students, and employers to gather feedback and assist in further development. The prototype was used as the basis for AIS to build the technical infrastructure to support the system. The prototype provided clear and detailed specifications for what was requested of the programmers. This allowed AIS staff to understand and support the vision of the Career Center. AIS had a team of 12 programmers, technical managers, and project managers who contributed to the development of the system (two of whom worked full-time on the Career Portfolio during the development phase). The AIS team met with members of the Portfolio Task Force (Project Manager, Career Center Technology Coordinator, and Graduate Assistant/Web Designer) on a regular basis throughout development. The prototype can be viewed at www.career.fsu.edu/portfolio/index.html.

FACTS funded a programmer through AIS to work on the development of the FSU Career Portfolio. Once the FSU system was complete, it was later adapted for FACTS. (It may be noted that FACTS pilot-tested this portfolio system in Spring 2004 with eight Florida postsecondary institutions, and launched the FACTS system statewide in June 2004.)

Assessing Internal and External Support

In order to develop information that would lead to the design and operation of an online FSU Career Portfolio Program (CPP), members of the Portfolio Task Force sought

feedback from administrators, staff, and employers. Task Force members met with staff from several offices on campus to ask for input and feedback on the general outline of the CPP during 1999-2000. These other offices were seen as important links in making the CPP a successful University-wide program. In July 1999, Task Force members met with the University Registrar and Associate Dean of Undergraduate Studies. In August 1999, Task Force members met with the Dean of Students, and the Director of the Center for Civic Education and Service. On September 16, 1999, The Career Center held its bi-annual Advisory Board Committee Meeting, made up of employers, students, faculty, administrators, and Career Center staff. The beginning FSU Career Portfolio prototype was demonstrated to this group and feedback was requested. The response was very positive, with employers, faculty, administrators, and students reacting favorably.

Employer Survey I: Skills Content

Several of the student learner outcome goals of the Career Portfolio relate to identifying, developing, and communicating workforce skills. To ensure that the CPP described skills that employers need, an employer survey was conducted in September 1999 during the Seminole Futures Career Exposition. Employers were asked to respond to a questionnaire regarding skills needed to succeed in the workplace. These eight transferable skills, (1) communication, (2) creativity, (3) critical thinking, (4) leadership, (5) personal management, (6) social responsibility, (7) teamwork, and (8) technical/scientific, were adapted from the University of Oregon's College Outcomes System. Employers were asked to rate the skills in terms of the <u>importance</u> of the skill and the <u>frequency</u> of use. Results of the survey are found in Appendix B. Employers validated these eight skills as important to their organizations and utilized frequently within their organizations. The Portfolio Task Force added a ninth skill area, research/project development, at the urging of President D'Alemberte, to reflect the importance of research at FSU.

As the prototype was being developed, the CPP was shared with faculty and staff throughout FSU during 2000-2001. In early 2000, the Career Portfolio prototype was presented to the Division of Student Affairs Central Staff, which is comprised of the directors of all the student affairs units and the Vice President and Associate Vice Presidents of Student Affairs. In April 2000, the prototype was demonstrated to President D'Alemberte, who was very pleased with the direction that his initial vision had taken. Later that month, the Career Portfolio prototype was demonstrated to the University Technology Steering Committee. In May 2000, the prototype was demonstrated to the Council of Informed Advisors, which is made up of academic advisors and related staff on campus. Then in July 2000 it was presented to the FSU Council of Deans.

Employer Survey II: Usefulness

A follow-up questionnaire was distributed at the Fall 2000 Seminole Futures Career Exposition to determine if employing organizations would find an online career portfolio system "useful" in their recruiting efforts. This survey took place before a

prototype was completed and focused on the general concept of an online career portfolio. The questionnaire consisted of five questions requiring a "yes," "no," or "unsure" response, and provided an opportunity for employers to supply comments and/or a rationale for their answer. Eighty-seven (N = 87; 33%) employers responded to the survey, and 88% indicated they would be interested in an online portfolio system; 87% stated they would use an online portfolio system to screen candidates; 71% stated they would use it to supplement a candidate's interview; 66% stated that they would not prefer a paper portfolio to an online version; and 87% felt that access to a candidate's self-reported employability skills would be useful in screening potential candidates. The complete results of this questionnaire can be viewed in Appendix C. These results revealed that employers validated the idea of an online portfolio system and felt that access to employability skills would be useful. This was important data for the Task Force in developing the Career Portfolio system.

In January 2001, President D'Alemberte suggested that FSU's Director of Technology Transfer, John Fraser, meet with the Career Center Director regarding the Career Portfolio and possible commercialization. As a result of this meeting, a process of exploring copyright and patent applications was initiated.

In April 2001, the Career Portfolio was presented to the University Retention Committee and a second meeting of the University Technology Steering Committee, and in July 2001 it was presented to the Dean of Students staff. The Career Center consistently received high praise and positive comments regarding the Career Portfolio Program.

Summary

The FSU Career Portfolio Program was in development for five years before its launch in April 2002. This sustained effort can be attributed to several factors, including strong, committed leadership by the university president, the Career Center's Portfolio Task Force, and CPP staff; renewed national interest in the portfolio concept; a clearly written philosophy focusing on student development; technical support systems available at FSU in the AIS unit; numerous presentations to key university committees and advisory councils; and repeated solicitation of feedback from students, employers, and other groups. The successful development and launch of the CPP at FSU was the result of the presentation of a good idea, energetic and sustained leadership, and a critical mass of people, technical resources, and facilities.

Input Evaluation

The philosophical basis of the FSU Career Portfolio Program grew out of a desire to link the various constituencies of the university, e.g., faculty, students, parents, public officials, employers, contributors, citizens, into a common purpose that furthers the core teaching/learning mission of the undergraduate program. This idea can be summarized as "career preparation," which was viewed as an outcome of career planning interventions. In this regard, it is important to define two terms, "career" and "work" (Reardon et al.,

2000). Career is defined as the "working out of a purposeful life pattern through work undertaken by a person" (Reardon et al., 2000, p. 6). This is not simply a matter of choosing an occupation or finding a job; career is a much broader concept. A career is unique to a person; it is a process of balancing life roles, for example, student, parent, spouse/partner, citizen, worker, which occur throughout one's lifetime. Work is defined as "activity that produces something of value for one's self or others" (Reardon et al., 2000, p. 7). This includes unpaid, volunteer work, as well as paid employment. The Career Portfolio designers believe that career preparation, given these definitions, is consistent with the core educational mission of a liberal arts curriculum at the undergraduate level. Indeed, they considered career preparation as enabling students to live as contributing citizens in a global community.

Four philosophical principles are basic to the FSU Career Portfolio Program (CPP). First, CPP involves a desire to create a system that enables students to develop and pursue a personal, strategic career vision. Second, CPP is founded on a belief that the university should be dedicated to producing graduates needed in an emerging global economy characterized by lean production, information technology, and alternative ways of working (Reardon et al., 2000). Third, CPP focuses on employers of college graduates who value evidence that students are ready to make effective contributions in the contemporary workplace. Employers include market, governmental, and service kinds of organizations that create valuable goods and services in the marketplace and the community. Fourth, CPP was based on the idea that career-planning services are a boundary spanning function linking education and employment, providing for connections between education, work, and community organizations. In summary, the Career Portfolio Program was viewed as an operational system that could provide a new scheme for introducing the concepts of career and work to the university and its constituents. It was seen as having the potential to provide a developmental, comprehensive, learner-centered emphasis for educational and career planning services at the university.

Design Considerations

Based on the results of the early research, surveys, and development work, thirteen design considerations for the FSU Career Portfolio were developed by the Portfolio Task Force:

1. Be student-centered, based on learning activities throughout the undergraduate years;
2. Enable students to plan and pursue a strategic career vision;
3. Enable students to select and pursue learning activities within and outside of their formal curricula that would enhance the likelihood of their achieving personal and professional goals;
4. Be initiated and sustained by student involvement, with assistance from many university resources;
5. Be available to students in all majors, in both self-help and brief staff-assisted modes of intervention;

6. Use sophisticated technology available via the Internet;
7. Provide a method for selecting, acquiring, and documenting career skills;
8. Be available to students at any level, from lower division students to final-term seniors, from graduate students to alumni;
9. Provide employers with documentation that FSU students are ready to make effective contributions in the workplace;
10. Promote career preparation throughout students' undergraduate educational experiences, not as something that can be accomplished with one visit to the Career Center;
11. Address the needs of students, faculty, employers, and citizens, including parents;
12. Increase the economic productivity and career satisfaction of graduates, as well as public support for higher education; and
13. Involve many different offices and programs in the university, such as service learning, academic advising, student recruiting, job placement services, cooperative education, classroom instruction, student activities and organizations, liberal arts courses, and pre-professional training programs.

Goals

After reaching a consensus on the general characteristics and scope of the proposed FSU Career Portfolio Program, the Task Force specified four general program goals. FSU would seek to develop:

1. a comprehensive system for helping students connect learning opportunities with employer needs.
2. a program for helping students integrate curricular and co-curricular experiences (e.g., academic/career advising, courses, and service learning).
3. an innovative Internet-based system to promote student learning, career preparation, and employment, and
4. a high-visibility program to positively support student recruitment and retention.

With respect to student learner outcomes, it was determined that as a result of using the FSU Career Portfolio Program students would be able to:

1. develop strategic planning skills that prepare them for the job campaign.
2. be aware of the importance of identifying and developing workforce skills.
3. identify learning opportunities that foster workforce skills.
4. know how to communicate and market workforce skills to potential employers.

A key ingredient of the Career Portfolio was the identification of skills that were valued in the workforce and in many other life roles. These skills, which later became the Career Portfolio's Career/Life Skills, include (1) Communication, (2) Creativity, (3) Critical Thinking, (4) Leadership, (5) Life Management, (6) Research/Project Development, (7) Social Responsibility, (8) Teamwork, and (9) Technical/Scientific (Lumsden et al., 2001). This list was developed by the Portfolio Task Force, and was based on research regarding the skills that employers look for in prospective employees.

The development of a consensus within the university community about this list of career/life skills, including faculty from across the campus in professional schools and liberal arts areas and advising staff from varied offices, was an important accomplishment of this career portfolio program. While a few "liberal arts" faculty were uncomfortable in identifying skills outcomes of a college education, the prevailing consensus was that these skills were highly compatible with a liberal arts education and should be at the core of this online portfolio.

Employer Survey III: Usability and Effectiveness

Once the Career Portfolio prototype was completed in April 2001, a third employer survey was implemented to determine employer reactions regarding the usability and effectiveness of the Career Portfolio. From December 2001 through January 2002, employers who actively recruit at FSU were e-mailed access to a student's portfolio and asked to respond to five questions. Twenty-one (23%) of the employers responded. The results of this survey can be viewed in Appendix D. All of the responding employers strongly agreed or agreed that the Career Portfolio was easy to use, and 95% strongly agreed or agreed that the design was user friendly. All respondents strongly agreed or agreed that the Career Portfolio was well organized, 98% strongly agreed or agreed that the Career Portfolio validated candidates' skills, and 95% strongly agreed or agreed that the Career Portfolio would be useful in assessing candidates' qualifications. Overall, employers endorsed the Career Portfolio as easy to use and effective in assessing and validating candidates' skills.

Launch of the FSU Career Portfolio

The FSU Career Portfolio was launched on April 26, 2002, at a formal reception attended by over 150 faculty, administrators, staff, students, and friends. Representatives from 19 different majors, several advising staff from Undergraduate Studies and across campus, as well as staff from the Division of Student Affairs administration, the FSU Foundation, and the FSU Alumni Association attended the event. Student leaders also attended, including the Student Body Vice President. Community members included the superintendent of Leon County Schools and several representatives from employers who recruit FSU students. Pictures from the Portfolio launch are available at http://www.career.fsu.edu/portfolio/photogallery.html. The event attracted local media and the CPP launch was highlighted on the local evening news. In addition, articles were published in the *State*, a bulletin for faculty and staff of FSU, as well as the *FSView*, the student newspaper of FSU, and the *Tallahassee Democrat*, the local newspaper.

The Career Center targeted faculty, staff, and administrators in marketing the Career Portfolio launch event. The rationale was to partner with these groups in promoting the system to students. Since the launch and through June 2004, over 16,000 students have initiated portfolio activity in the system. Additional information about Career Portfolio usage will be provided later in the Process Evaluation section of this report. In the following section, we provide a narrative description of the program.

Program Description

A preview of the CPP is available at http://www.career.fsu.edu/portfolio/index.html. The homepage of the CPP provides users with three selection options: (1) First Time User: Start Here, (2) FSU Students: Enter Portfolio, and (3) Referred User: View Portfolio (see Figure 1). Each of these three options is described below.

Figure 1. Career Portfolio Homepage

1. First Time User: Start Here

This selection is intended to provide an introduction or overview of the system and motivate students to become involved in the program. This ten-step "tour" also provides information about the nine career and life skills and the five experience categories through which students develop their skills. The nine career and life skills include: communication, creativity, critical thinking, leadership, life management, research/project development, social responsibility, teamwork, and technical/scientific. The experience categories are courses, jobs/internships, service/volunteer work, memberships/activities, and interests/life experiences. Because this system is online, it can be previewed in classes, workshops, residence halls, or individual offices by advisors, counselors, or instructors. It can also be previewed directly by students themselves via

the Internet. To view the first-time user tour and descriptions of the career/life skills, visit http://portfolio.fsu.edu, and click on First Time User: Start Here.

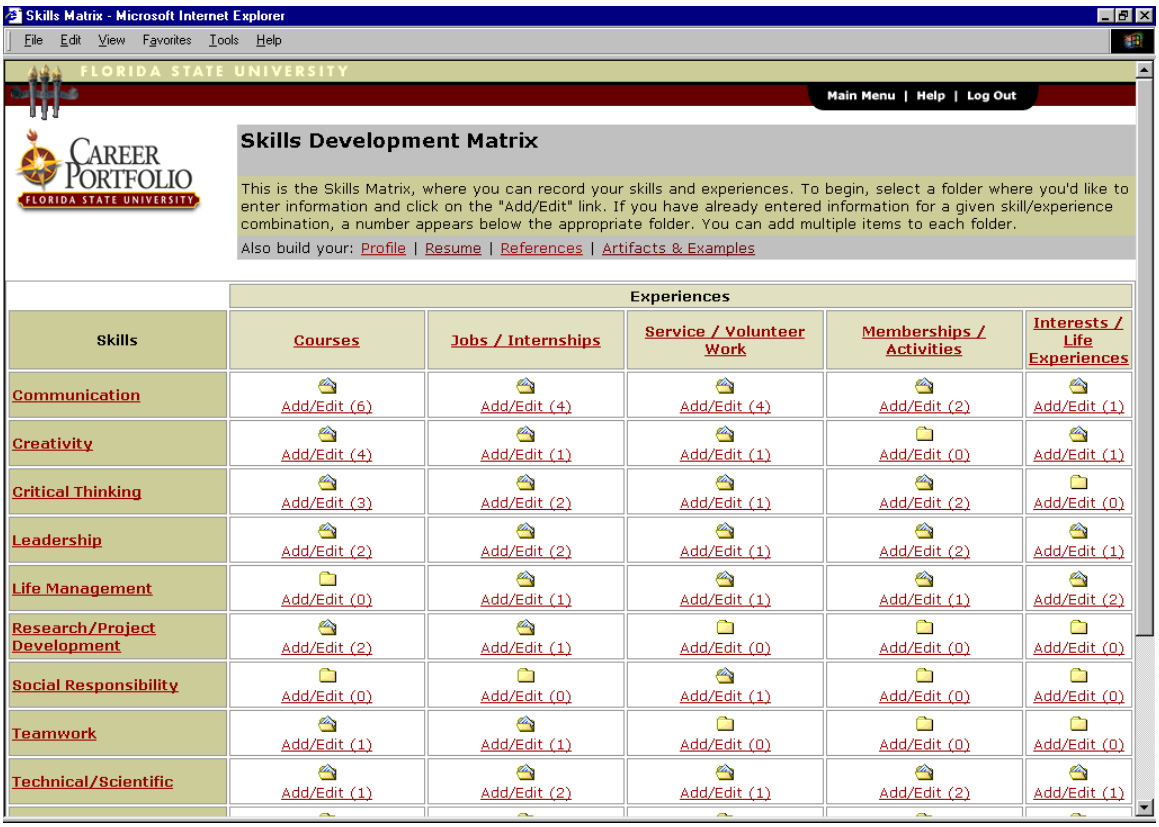
2. FSU Students: Enter Portfolio

The second selection requires the user to log in through the FSU secure Web portal and takes the user to their main menu. At the main menu, students have options to build, manage, or learn in relation to their career portfolio.

Build. Within the build section, students can begin building their skills matrix, profile, résumé, references, and artifacts. Each of these provides an option for an additional tour if students would like more information. Tours provide students with guidance and assistance on an "as needed" basis. The remainder of this section provides details about the five methods students can use to build their career portfolio.

1. *Skills Matrix.* The skills matrix is the heart of this online CPP (see Figure 2). In the skills matrix, students build their portfolio by documenting the experiences that have contributed to the development of the nine skills areas identified above, plus one skill area of the student's choice. Each "cell" within the matrix contains data entry screens that give students a framework for entering information about their skill development. Through the skills matrix, students can access all courses on their academic transcript, as well as service experience on their service transcript, by a link with the university registrar database, and import the information directly into the data-entry screens. This feature demonstrates one of the ways the CPP is integrated with many different academic support services of the university.

Figure 2. Career Portfolio Skills Matrix



	Experiences				
Skills	Courses	Jobs / Internships	Service / Volunteer Work	Memberships / Activities	Interests / Life Experiences
Communication	Add/Edit (6)	Add/Edit (4)	Add/Edit (4)	Add/Edit (2)	Add/Edit (1)
Creativity	Add/Edit (4)	Add/Edit (1)	Add/Edit (1)	Add/Edit (0)	Add/Edit (1)
Critical Thinking	Add/Edit (3)	Add/Edit (2)	Add/Edit (1)	Add/Edit (2)	Add/Edit (0)
Leadership	Add/Edit (2)	Add/Edit (2)	Add/Edit (1)	Add/Edit (2)	Add/Edit (1)
Life Management	Add/Edit (0)	Add/Edit (1)	Add/Edit (1)	Add/Edit (1)	Add/Edit (2)
Research/Project Development	Add/Edit (2)	Add/Edit (1)	Add/Edit (0)	Add/Edit (0)	Add/Edit (0)
Social Responsibility	Add/Edit (0)	Add/Edit (0)	Add/Edit (1)	Add/Edit (0)	Add/Edit (0)
Teamwork	Add/Edit (1)	Add/Edit (1)	Add/Edit (0)	Add/Edit (0)	Add/Edit (0)
Technical/Scientific	Add/Edit (1)	Add/Edit (2)	Add/Edit (1)	Add/Edit (2)	Add/Edit (1)

Furthermore, the skills matrix can also be used as planning tool. When looking at their individualized skills matrix, students can quickly see what skills they have documented and what skills they need to acquire. Each cell of the matrix shows how many items are included for that particular area. Students can work with academic advisors in selecting coursework that will help them develop a particular skill. They can talk with career advisors, faculty, and others about other experiences they can be involved in to further develop their skills.

An important component of this portfolio-building process is that students are asked to reflect upon their experiences. They are encouraged to describe specifically how a particular experience led to the development of a career and life skill. This reflective process is valuable for students when they engage in the job search or graduate-school application process, because it helps prepare them to market their skills to potential employers or admissions committees. Many different university personnel assist students with this process.

2. *Profile.* The profile section enables users to present a biographical sketch, or brief introduction to their career portfolio. It is the first page a referred user will see when viewing a student's online career portfolio. The profile allows students to say a little about their background and plans. Students are encouraged to include items such as goals, qualifications, and career objectives.

3. *Résumé.* The résumé section allows students to upload their résumé directly into the career portfolio. Students are encouraged to create their résumé in a generic format that can be used for other purposes and are able to maintain multiple versions of their résumé in their career portfolio.

4. *References.* This section allows students to enter contact information for people who can provide references for them. Students are encouraged to be proactive in developing and maintaining relationships with such persons both on campus and in the community.

5. *Artifacts.* In the artifacts section, students upload samples of their work in a variety of formats. For example, students may want to include writing samples, PowerPoint presentations, research papers, artwork, links to Web sites, or other artifacts that show the scope and quality of their work. This section can be useful for students to keep track of work they have done throughout their college experience, and is the epitome of the term "portfolio."

These five subsections of the CPP build section provide a rich variety of methods for students to construct their online portfolio. The remaining two sections of the CPP main menu, manage and learn, are described below.

Manage. The manage section of the main menu allows students to personalize their career portfolios (each user is allowed to have up to three versions of their portfolio).

Because students will be documenting their skills and experiences for an extended length of time (ideally, from freshman to senior year or throughout a graduate program), they may have a large number of items in their career portfolio. Students can customize each of their three portfolio versions to target specific career objectives. They can choose to show only a subset of all the information they have included through the build section. Student can also choose to make available their unofficial academic and/or service transcripts for others to view.

Through the manage section, students also create access keys (passwords) that allow referred users (e.g., employers, faculty members, graduate school admissions committees, parents) to view their career portfolio. In addition, students can view their career portfolio through the manage section and send e-mails with access information directly to people they want to have view their career portfolio. Lastly, students can track the use of access keys to know if and when referred users have accessed their career portfolio.

Learn. The learn section of the main menu allows students to access all of the tours in the CPP, view sample portfolios, and learn about other services the Career Center offers. Most importantly, students can access "Opportunities for Experience," where they can find out about opportunities on campus and in the community that will help them develop their career and life skills. This section includes links to more than 300 campus organizations and Web pages of almost all student-affairs and academic-support offices on campus. In this regard, the CPP is a systemic career-planning intervention for students.

3. Referred User: View Portfolio

The third selection from the homepage of this career portfolio is called Referred User: View Portfolio. In this section, those persons referred by students can access a particular career portfolio and examine the information provided there. Tabs organize the output of a particular career portfolio across the top of the screen, which first opens to the profile screen, where students briefly summarize the information they want the referred user to see. By clicking on the tabs, referred users can then view a student's résumé, skills, unofficial transcripts, references, and artifacts—but only those sections that a student has made available for viewing. Through the referred-user option, students can also obtain consultation and assistance from faculty, academic advisors, and career counselors regarding the development of their career portfolios. In this way, many varied university personnel can become an active part of this career-planning intervention if a student desires.

Program Implementation

The FSU Career Portfolio Program is targeted to students, employers, faculty, administrators, and staff. Besides direct, self-help use, students are encouraged to develop their career portfolio in the context of various courses, academic advising, career planning classes, outreach presentations, and one-on-one career advising. Each of these

interventions involves varied faculty and staff working with students in their respective roles and relationships.

Every section of First Year Experience (FYE) classes (approximately 45-55 sections per year) visits the Career Center and is introduced to the CPP. During freshman orientation, all incoming students and their parents can attend an information session on the CPP. Outreach presentations are conducted throughout campus, often at the request of faculty members or student groups. Since launching the CPP in April 2002 and through June 4, 2004, more than 102 information presentations have been made by Career Center staff to members of the FSU community. Over 4,230 students have attended these presentations. During the 2003-2004 academic year (Summer/Fall/Spring), Career Center staff made 52 presentations to 1,992 students. Appendix E details the groups and numbers of outreach presentations since the launch.

Academic advisors use the CPP when meeting with students to develop programs of study and establish educational goals, particularly in conceptualizing generic skills drawn from learning activities in the liberal studies curriculum and other courses. Advisors encourage students to find courses and activities that will help in the development of desired career/life skills.

The Career Center offers multiple sections of a career planning class, and building a career portfolio is incorporated into the course. The CPP is introduced during career advising, where students drop in to get assistance with their career planning and employment needs. Internship, cooperative education, and volunteer work experiences also provide learning events that can be categorized into one or more of the career/life skill categories. Reflection upon the meaning of these learning experiences with a mentor or advisor will facilitate portfolio development.

University faculty, administration, and staff have been exposed to the CPP through demonstrations and they are also encouraged to develop their own career portfolio, to help further their understanding of the process. Many of the university's schools and colleges have expressed interest in the program, some to aid in their accreditation process, e.g., Engineering and Athletic Training. Several faculty members, in the colleges of Human Sciences, Education, Nursing, and Business, now require the CPP as a part of their class assignments. Other instructors offer extra credit for students who complete specified sections of the CPP. In this way, students are encouraged and assisted in developing their career portfolio throughout their college career.

Continuing education about the value of the CPP and how it can be used effectively is critical to the continuing adoption of the program university wide. It is important for members of the faculty and administration to recognize how the CPP connects with the mission of the university.

Staff Training

An important part of implementation was training Career Center staff and graduate assistant career advisors in the use and support of the CPP. Training sessions were held to show a completed career portfolio, and staff are all encouraged to build their own career portfolios. To help staff and career advisors provide feedback to students regarding their individual career portfolio, portfolio staff prepared a document that identifies steps that can be taken in critiquing a career portfolio (Critiquing the Online Career Portfolio; see Appendix F). Training sessions, which include demonstration, hands-on practice with the site, and practice critiquing portfolios, occur at regular intervals for both staff and career advisors. In addition, academic advisors are offered training sessions to familiarize themselves with the system and demonstrate how they can incorporate the CPP into their advising sessions. Future trainings will continue to include academic advisors, as well as be available for staff in FSU's student leadership development center.

Summary

A statement of CPP philosophy, along with specified design considerations and program and student outcome goals, were developed and served as guiding principles for development of the system. Nine generic life/career skills were specified and these were reviewed by a variety of university constituents. The CPP was launched in April 2002 and implemented immediately thereafter. Ongoing CPP implementation activities include outreach presentations, staff training, advertising, and consultation with FSU faculty and staff. CPP users, including students and those referred to the system, may begin by selecting one of three options for entry. Students entering the CPP have options to build, manage, or learn about skill building activities related to portfolio development.

Process Evaluation

Early Evaluation Activities

This section describes a variety of evaluation activities undertaken by the portfolio staff to obtain feedback from students and other portfolio users as elements of the CPP were created and implemented. The CPP was tested as a prototype and then during each phase of development. Early testing focused on the basic portfolio concept and the system's navigation and usability. More detailed usability and acceptance testing took place throughout development of the live system and focused on finding any technical problems, as well as assessing usability and student potential usage. Feedback was provided on the usability, content, and potential usefulness of the CPP through focus groups, pilot tests, and acceptance testing.

It was important to the Portfolio Task Force to obtain students' feedback on the CPP to ensure that the system would be easy to navigate and understand, as well as be helpful for students in their career development and job search. The student groups represented a wide variety of college students e.g., both undergraduate and graduate students; students in athletic training, business, dietetics, engineering, higher education;

disadvantaged and first generation college students who participated in the CARE (Center for Academic Retention and Support) program; and honors students from Lambda Pi Eta (a communication honor society). It was also important to gather feedback from other groups who work with students in the career development process, including graduate students serving as career advisors at the FSU Career Center, full-time Career Center staff, and Career Center Advisory Board members.

The first user trial took place in July 2000 using an early prototype of the CPP with 13 testers. Career Center staff and FSU students were asked to provide detailed feedback on all sections of the prototype through a free-response sheet, as well as answer 21 specific questions using a Likert scale (strongly agree to strongly disagree), and five additional open-ended questions. While the feedback was overwhelmingly positive, we also received suggestions for improvement. Many changes were made based on this early testing, primarily related to the amount of information provided to the students at one time. The early prototype was very linear in nature, taking the student through information one screen at a time. This was changed to using optional "tours" which the student could view to obtain more detailed information.

The next round of testing occurred in October 2000 with eight staff, graduate students, and student assistants, all of whom worked in the Career Center. The new CPP design, including the tours, was evaluated by this group and was favorably received. As before, helpful comments from the reviewers provided opportunities to improve the system.

In November of 2000, 22 students were recruited from SDS 3340 (Introduction to Career Development) classes to test the CPP. Students were asked to utilize the system and provide feedback on all sections of the system. All of the students liked the design/concept of the CPP and all indicated that they would use it when it became available. Following the testing, a focus group was conducted with seven of the students to obtain more detailed feedback. The focus group reaffirmed that the students were excited about the CPP and provided some additional suggestions for improvement.

During the bi-annual Career Center Advisory Board meeting in January 2001, the CPP prototype was demonstrated and feedback was requested from members, which included employers, students, faculty, and staff. All constituents expressed support for the CPP system.

As each phase of the CPP was completed, staff and students were asked to provide feedback and ensure that components were working properly. The first round of this "acceptance testing" focused on the skills matrix, profile, and references sections, as well as some components of the manage section such as personalizing and ranking items. This testing occurred in March and April 2001 with six staff of the Career Center and 14 students from SDS 3340 classes, respectively. No major problems with the system were discovered, and students reported the CPP was easy to use and they expressed strong interest in using it when it became available.

In May 2001, a pilot test with 23 students enrolled in a business communication class took place. Students were given approximately 10 days to work on their career portfolio, after which each student filled out an evaluation form. Again, responses were overwhelming positive: 100% strongly agreed or agreed that they were able to easily navigate the site; 96% strongly agreed or agreed that they liked the overall look and feel; and 91% strongly agreed or agreed that they liked how the portfolio was presented (Referred User view). Comments indicated that the CPP was easy to use; professional; organized; and students liked that others would be able to view their career portfolio online. Only minor technical issues were discovered, which were easily rectified.

During the summer of 2001, students from the College of Engineering, as well as those participating in the Center for Academic Retention and Enhancement (CARE) program were invited to provide feedback on the CPP.

Two rounds of acceptance testing occurred in October 2001, with students and staff testing additional completed sections of the CPP. The sections included artifacts, verify email address, access keys, send portfolio, view access details, and referred user viewing. Following this, in November, staff and graduate assistants provided feedback which resulted in 59 different feedback responses. In December, students from SDS 3340 were again used to solicit feedback, and 67 different feedback items were received. Through this acceptance testing, many technical issues were discovered and ultimately resolved. Students continued to express excitement and positive comments regarding the system.

With the CPP system mostly complete, pilot testing during Spring 2002 introduced the system to selected groups of students. Student groups who participated included those enrolled in First Year Experience, higher education graduate students, members of Lambda Pi Eta, and CARE program participants. Feedback obtained throughout this semester was used to ensure that the program was in full operation in preparation for the campus-wide launch that took place on April 26, 2002.

Portfolio Usage

Portfolio staff used Business Objects software to report data for student usage from April 26, 2002 (the formal launch of the Career Portfolio) to June 4, 2004. Summary tables of this information are included in Appendix G of this report. This report will be updated on a yearly basis. Inspection of Appendix G reveals the breadth of data available regarding student usage of the FSU Career Portfolio Program. A summary of the highlights of this information is provided below.

In the fall 2003, the student enrollment at FSU was 37,328 (*FSU Fact Book, 2003-2004*). The total number of CPP student users was 16,048 (this number may include alumni up to five years out and students who may have left the university). Of this total 8,827 (55%) were female and 7,221 (45%) were male. It may be noted that this distribution is very close to that of FSU students in the fall 2003: 56% were female and 44% male (*FSU Fact Book, 2003-2004*). Seniors enrolled at Florida State University

were the largest users of the system, N = 7,114 (44%), and they comprised 23% of fall 2003 enrollment (*FSU Fact Book, 2003-2004*). Juniors were the second largest users (2,855; 14% and 21%) followed by graduate students (2,312; 14% and 18%). The fourth largest group was freshmen comprising 6% (891) of the total number of student users. Finally, "other" users made up 4% (651) of the total users. This group included students granted special student status through the university.

Of the 16,048 student users who created portions of an online FSU career portfolio, 8,316 students had active portfolios, as indicated by the fact they had accessed the system in the preceding 365 days. Inactive portfolios (8,535) were those that had not been accessed within the last year (366 days or more).

Students using the CPP represented a wide variety of colleges and schools within the Florida State University. Altogether, students from 17 FSU colleges or schools and Undergraduate Studies used the system. The top five colleges or schools represented by student users were: Undergraduate Studies (3,671), College of Business (2,280), College of Arts and Sciences (2,168), College of Social Sciences (1,447), and College of Human Sciences (1,177).

The Career Portfolio contains nine transferable skills that students can develop and demonstrate through a variety of different experiences. The most often used skill was communication (4,134), followed by leadership (1,881), creativity (1,734), teamwork (1,687), technical/scientific (1,680), social responsibility (1,171), critical thinking (1,158), research/project development (1029), and life management (868).

It is not too surprising that the two skills used most often by FSU students were communication and leadership. Communication skills may be the easiest to document because of the types of communication activities that students engage in as part of university course requirements and organizational activities. It is also a skill that is frequently mentioned as important in human relations and problem-solving activities. The frequent use of the leadership skill documented by students may be due in part to the emphasis that FSU has placed on this area in the past and the emerging LEAD initiative (Leaders Educated to Make a Difference) at Florida State University. This new program is part of the university's quality enhancement plan in reference to the Southern Association of Colleges and Universities accreditation review. The two skills cited least often in portfolios by FSU students could be due to several factors. First, research/project development was the 9th skill added by the task force. While an important activity in a large research university such as FSU, the inclusion of this skill was based on feedback from university administrators and it is not typically included in lists of generic portfolio skills. Second, life management skills may not be easy for students to document without appearing to be unduly self-absorbed or self-assured.

Students have the opportunity to include a tenth skill of their own choice. The ten most frequent skills added by students were history, history/geography, student development, professional, human resource development, athletics, child development,

housing, finance, teaching, programming languages, and global knowledge. The last four skills were used the same number of times so they are included in this listing.

In addition to documenting skills, students can also showcase samples of their work in the artifacts and examples section. The average number of artifacts per student was 2.3 as of June 4, 2004. It should be noted that documenting the average number of artifacts is difficult because new users are constantly entering the system. The most common artifact shown is Word documents (1,271). The following is a list of other documents uploaded into the Career Portfolio system: PowerPoint presentations (206), Image (202), Rich Text Format (40), Microsoft Works (39), Portable Document Format (PDF) (33), and Excel Spreadsheets (32). Two hundred and ten students (210) have provided links to their artifacts. Students also have the opportunity to show an unofficial academic transcript in the Career Portfolio system. Nine hundred and forty students (N = 940) elected to show their transcript. Furthermore, 2,098 resumes have been uploaded.

After students have built a career portfolio they can create access keys for referred users, who use it and the student's e-mail address to access the career portfolio. In 2002, 418 access keys were created from April to December. These data were not completely accurate because the CPP system did not save these keys once they were deleted. Portfolio staff decided to change this component of the system so more accurate information about the use of access keys could be obtained. In 2003, 1,441 access keys were created and as of June 4, 2004, 910 had been created. The breakdown by year and month can be viewed in Appendix G.

Summary

A large number of evaluation activities were undertaken during the development phase of the CPP, and other activities have been initiated since the CPP launch in April 2002. The portfolio staff was especially interested in obtaining feedback from student users in the early stages of CPP development beginning in July 2000, and continuing up to the formal CPP launch. Altogether, approximately 20 different groups participated in this process of evaluating the CPP and its various components. Since the formal launch, 16,048 students have initiated activity with the CPP, with 8,316 having an active career portfolio (accessed the CPP in the preceding year). Students from 18 different FSU colleges and schools have used the CPP, with seniors (44%), juniors (14%), and graduate students (14%) participating most frequently. Women used the CPP at a rate of 55% and men 45%. The most frequently used skills in the CPP were communication, leadership, and teamwork, while research/project management and life management were used least frequently. This section of the report concluded with information on how students used the artifacts and examples options, and the frequency of use of access keys for referred users.

Product Evaluation

In this section, we provide an overview of the Career Portfolio Program (CPP) goals and activities, followed by a presentation of information related to a summative evaluation of the CPP.

Program Goals

As stated earlier, the FSU CPP was designed with program and learner outcome goals in mind. Specifically the program goals were to develop:

1. a comprehensive system for helping students connect learning opportunities with employer needs.
2. a program for helping students integrate curricular and co-curricular experiences (e.g., academic/career advising, courses, and service learning).
3. an innovative Internet-based system to promote student learning, career preparation, and employment, and
4. a high-visibility program to positively support student recruitment and retention.

Learner Outcome Goals

With respect to student learner outcomes, it was determined that as a result of participating in the FSU CPP students would be able to:

1. develop strategic planning skills that prepare them for the job campaign.
2. be aware of the importance of identifying and developing workforce skills.
3. identify learning opportunities that foster workforce skills.
4. know how to communicate and market workforce skills to potential employers.

To date the Career Center has undertaken several activities aimed at evaluating these goals. These activities include presentations at national, regional, and state conferences; publications regarding the CPP; a university-wide Career Portfolio Contest; and online surveys for portfolio users to complete. Each of these activities will be discussed in relation to the program goals listed above.

Conference Presentations and Publications

In order to document the completion of the four program goals, the Career Center submitted documents and proposals for publication or presentation at meetings. All of these presentations were refereed, meaning that the reviewers evaluating the program proposals or articles for publication did not know the names or affiliations of the authors. The results of these submissions are described below.

The CPP has been presented at eight state, regional, and national conferences. Information about these presentations is provided in Appendix H, showing the date, title, conference sponsor, location, and referee status. PowerPoint materials for the conference

presentations can be viewed at the Career Portfolio Informational Site (www.career.fsu.edu/portfolio/index.html <http://www.career.fsu.edu/portfolio/index.html>).

In addition to the conference presentations, the CPP has also been described in three publications. The CPP was presented in the *Journal of Career Planning and Employment* in the fall 2001, and won honorable mention in the Outstanding Achievement Award for Innovative Programs in the Career Services Field (NACE/Chevron Texaco Award) in 2002. This award recognizes and honors a college member for development of a groundbreaking program in the career services field, and was featured in the Fall 2002 issue of the *Journal of Career Planning and Employment*. Finally, a refereed chapter, "Career interventions: Facilitating strategic academic and career planning," was published in *Student academic services: An integrated approach* (Kramer and Associates, 2003).

Career Portfolio Internet Citations

To identify resources that cite the Career Portfolio Program, searches were conducted utilizing scholarly databases as well as Internet search engines. A search of the ISI Web of Science, PsychInfo, and ERIC did not yield results; however, Internet searches with meta search engines including Metacrawler, Metasearch, and Dogpile, which compile findings from various search engines such as Google, LookSmart, and Yahoo, were productive. Also, Web searches with Hot Bot and Ixquick were utilized. The searches included variations of the key words "portfolio," "career," and "Florida State University." In addition, some citations were located through information provided by the portfolio staff. Appendix I shows the 25 citations found in these searches for the CPP as well as the three additional citations found for the *Journal of Career Planning and Employment* article published in 2001 (Lumsden et al., 2001).

Career Portfolio Contest

In the fall 2003, the Career Center decided to hold a university-wide career portfolio contest for two reasons. First, there was a lack of information regarding the quality and content of career portfolios being created by FSU students. Second, there was a need to increase awareness among employers about the CPP and to learn more about their inclination to use it in the evaluation of candidates. The career portfolio contest also served to meet the program goals of helping students to connect learning opportunities with employer needs (program goal 1) and integrate curricular and co-curricular experiences (program goal 2), and to establish a high-visibility program to positively support student recruitment and retention (program goal 4). In addition, Career Center staff believed that contest participants would be aware of the importance of developing and identifying workforce skills (learner outcome goal 2), identifying those opportunities they have been involved in (learner outcome goal 3), and communicating those skills and experiences clearly and effectively to employers (learner outcome goal 4).

To promote the career portfolio contest, print-based promotional materials were distributed throughout the campus beginning in August 2003. Electronic media used by the Career Center (e.g., website, email) was used to communicate with students, employers, and university faculty and staff about the contest. Rules and procedures for the contest were posted online and students were encouraged to visit the site for information pertaining to the minimum criteria required to enter the contest. The entry period was open for approximately two months, with the submission deadline occurring October 30, 2003. Cash scholarships in the amount of $500, $300, and $100 were awarded to the first, second, and third place winners. The first place award amount was donated by one of the Career Center's Placement Partners (e.g., corporate sponsor).

The overall quality of the submitted portfolios was impressive. Many students included a variety of different courses they completed over their college years. In addition, entrants chose to include many different types of documents in the artifacts section. Some examples of these artifacts included PowerPoint presentations, statements of purpose, syllabi for courses they taught, websites they designed, an audio clip of the student playing a selected piece of music, and sketches they drew. Furthermore, a wide range of work and volunteer experiences were represented by the contest entrants.

All contest entries were evaluated using a three-step screening process. First, entries were screened by portfolio staff to ensure that each met the minimum requirements outlined in the contest rules. Students that did not meet the minimum requirements were not advanced to the second phase of the process. Those entries that met the contest requirements were then passed on to the Career Center Portfolio Committee for a second review. This review focused on content and spelling/grammatical errors contained in the submitted portfolios. The top 13 scorers from this review process moved to the next round, which was a thorough review by employer judges. Employers who serve on the Career Center Advisory Board were invited to be contest judges. A total of eight employers volunteered to review the submitted portfolios. The top entrants were randomly assigned to three employer judges. The 13 finalists represented a variety of academic programs, including both undergraduate and graduate disciplines. Each employer evaluated four or five student portfolios and submitted their ratings to the portfolio staff. To adjust for differences among employer ratings the difference between the overall mean and each employer's mean was calculated. The result was then added to or subtracted from each entrant's original rating from each employer.

The top three students were contacted by phone and invited to attend a luncheon during Seminole Futures, Florida State University's bi-annual career exposition. At the luncheon the first, second, and third place winners were recognized for their achievement and awarded a certificate stating their accomplishment. The first place winner is currently an undergraduate student in Engineering, the second place winner is in her final semester of the MBA program, and the third place winner is a doctoral student in the College of Education. Portions of the winners' career portfolios are available at www.career.fsu.edu/portfolio/contestwinners. The Career Center plans to repeat the career portfolio contest again in the future.

At the conclusion of the first portfolio contest, the Career Center Portfolio Sub-Committee planned a focus group with the employers who served as contest judges. Of the eight judges invited, five were able to attend. The intent was to receive feedback from employers who had thoroughly examined students' portfolios. Judges completed a survey about the CPP system and how they might use it during the selection process. The employers were then asked questions to generate discussion about aspects of the career portfolio. Forty-three percent of the employer judges believed they would use a students' career portfolio during the secondary interview process and 29% believed they would use it during the application process. Overall, 86% of employer judges believed they would use the CPP in assessing candidates for their organization. Employers were asked to rank, in order of usefulness in evaluating candidates, the different components of the CPP system. This resulted in the resume being ranked as most important by 86% of the judges. According to 57% of the judges, the artifacts section was second in importance. The profile was ranked as third by 57% of the employers, and the student transcript was ranked fourth according to 57% of the judges. The references section was ranked as least useful by 86% of the judges.

In addition to the focus group with the employers, the FSU Portfolio Sub-Committee provided feedback on the contest entries they reviewed in the second stage of the evaluation process. Overall, most of the comments were positive regarding the content of the career portfolios (e.g., interesting artifacts and skill descriptions). Some of the committee member's criticisms pertained to the number of grammatical and spelling errors students had within the portfolio sections and in their uploaded artifacts.

Finally, to further evaluate the program and learner outcome goals discussed previously, portfolio contest participants were sent an online evaluation form. Fifteen students responded to the online evaluation. Eighty percent of the respondents planned to use the career portfolio to identify their skills, 53 percent planned to use it when applying for a job, and 40 percent planned to use it to prepare for an interview. The majority of students who participated in the portfolio contest and completed an evaluation had positive views of the CPP, which support the learner outcome goals listed earlier. The following is a summary of the findings:

1. 80% strongly agreed or agreed that the CPP System helped them find experiences at FSU that will lead to the development of transferable skills.
2. 66% strongly agreed or agreed that the CPP helped them to find experiences in the community that will lead to the development of skills.
3. 93% strongly agreed or agreed that the CPP helped them to understand how their academic and professional skills relate to my career goals.
4. 86% strongly agreed or agreed that the CPP helped them to show evidence of interpersonal skills needed to work with or for others.
5. 93% strongly agreed or agreed that the CPP helped them to show evidence of skills developed in their academic program.

6. 86% strongly agreed or agreed that the CPP helped them to show evidence of skills developed through volunteer experiences, part-time employment, internships, and/or a cooperative education program.
7. 93% strongly agreed or agreed that the CPP helped them to show evidence of skills that can apply to a variety of occupations.
8. 93% strongly agreed or agreed that the CPP helped them to show evidence of skills necessary to obtain and maintain employment.
9. 93% strongly agreed or agreed that the CPP helped them to communicate my skills to potential employers.
10. 93% strongly agreed or agreed that the CPP helped them prepare for job searching and interviewing.

Career Portfolio Electronic Survey

To further evaluate the goals of the CPP, an electronic survey was distributed to all students enrolled in courses that required use of the system. The use of the online evaluation was intended to evaluate the effectiveness of the four program goals identified earlier. Career Center staff often become aware that university faculty require their students to build a career portfolio when faculty request a portfolio presentation in their classes. After conducting the presentation, Career Center staff request permission of the faculty members to survey the students via email. All faculty members agreed to this request. Through the use of an online tool at Florida State University, Career Center staff emailed each student the online evaluation form after the career portfolio had been submitted to the instructor. In most cases, students had one month to complete the survey. Each week those students who had not responded received a reminder email to submit the completed evaluation form.

Surveys were emailed to 693 students enrolled in a variety of courses ranging from an undergraduate nursing class to a graduate level higher education class. Completed surveys were obtained from 96 students, a response rate of 14%. Eighty-five percent of the respondents were female. Students were asked to check off all the people who helped them develop their career portfolio. The most frequent individuals helping students build their career portfolios were faculty (43%), or career advisors working in the Career Center (18%). Twenty-one percent received help from no one. These individuals most likely were able to navigate the CPP on their own and follow the directions to build and manage their career portfolios.

Students were also asked to indicate how they intended to use their completed career portfolio. The most common use was to satisfy the course requirement (33%), which was not surprising because the online evaluation was only sent to students enrolled in a course that required the career portfolio. Besides using it for a class assignment the top three ways students planed to use their career portfolio were applying for a job (20%), identifying their skills (15%), or applying for graduate or professional school (12%). The two least frequent uses identified by students were applying for an internship (11%) and interview preparation (8%).

The survey included 10 items related to the four learner outcome goals specified earlier. Students had the option of strongly agreeing, agreeing, disagreeing, or strongly disagreeing to statements aimed at evaluating the effectiveness of the CPP. Students could also check "not applicable." The majority of students had positive views of the CPP. A summary of the findings is shown below.

1. 70% strongly agreed or agreed that the CPP helped them find experiences at FSU that would lead to the development of transferable skills.
2. 63% strongly agreed or agreed that the CPP helped them find experiences in the community that would lead to the development of skills.
3. 83% strongly agreed or agreed that the CPP helped them understand how their academic and professional skills related to personal career goals.
4. 80% strongly agreed or agreed that the CPP helped them show evidence of interpersonal skills needed to work with or for others.
5. 85% strongly agreed or agreed that the CPP helped them to show evidence of skills developed in their academic program.
6. 85% strongly agreed or agreed that the CPP helped them show evidence of skills developed through volunteer experiences, part-time employment, internships, and/or a cooperative education program.
7. 81% strongly agreed or agreed that the CPP helped them show evidence of skills that could apply to a variety of occupations.
8. 83% strongly agreed or agreed that the CPP helped them show evidence of skills necessary to obtain and maintain employment.
9. 85% strongly agreed or agreed that the CPS helped them communicate their skills to potential employers.
10. 80% strongly agreed or agreed that the CPS helped them prepare for job searching and interviewing.

Employer Survey IV: Familiarity, Access, and Effectiveness

After the launch of the CPP in April 2002, the Career Center decided to institutionalize employer feedback on the system. Questions regarding the CPP were added to employer evaluations for career expositions and on-campus recruiting. Data were collected from fall 2002 through spring 2004 from 351 employers (an average response rate of 34%). Five groups were included in these data: (1) on-campus recruiters 2002-2003; (2) on-campus recruiters 2003-2004; (3) Seminole Futures Career Exposition fall 2003; (4) Seminole Futures Career Exposition spring 2004; and (5) Engineering Day Career Exposition fall 2003. The respondents of the survey represented industries that typically recruit at FSU: 32% retail, 27% financial, 18% engineering, 16% technology, and 7% government. These results are presented in Appendix J.

In terms of familiarity, 42% of employers were familiar with the CPP across the five groups. Twenty-seven percent (27%) of these respondents had been given access by a student to his/her career portfolio. Those employers who had been given access rated the career portfolio as above average in terms of being beneficial in identifying students' skills. In summary, <u>familiarity</u> with the online portfolio is increasing among employers,

yet only 1 out of 11 have been provided access by a student. Employers with access rated the effectiveness of the online portfolio as above average.

Dissemination (inquiries/adoptions/adaptations)

The FSU Career Portfolio Program has attracted the attention of many colleges, universities, associations, and governments, both nationally and internationally. Inquiries have been received from over 60 higher education institutions regarding the CPP. Presently, two universities, Georgia Institute of Technology (Georgia Tech) and the University of California, San Diego (UCSD), are actively involved in adapting the CPP for use at their institutions. UCSD plans to role out their version of the Career Portfolio in fall of 2004, and Georgia Tech is in the process of customizing the system for their use. The State of Florida has just rolled out a version of the FSUCPP through the Florida Academic Counseling and Tracking for Students (FACTS) program at postsecondary institutions throughout the State. Information about this program is available at http://facts023.facts.usf.edu/portfolio/.

In 2002, Florida State University initiated the costly process of applying for a patent for the CPP. Patent attorneys were hired to develop the patent applications in conjunction with FSU's Technology Transfer Office and the Career Center. Three patent applications were filed in April 2002, and are currently pending. These three applications were titled: Portfolio Creation Management System and Method, Personal Information Presentation System and Method, and Personal Experience Analysis System. During this process, inventors of the Career Portfolio were specified for each of the three applications. A list of inventors by application is included in Appendix K.

Inquiries regarding possible licensing and purchasing of the CPP are initially directed to the portfolio project coordinator. The project coordinator provides interested parties with more detailed information about the system, and, if necessary, gives them guest access to the live CPP site in order to explore the system in its entirety. Often, the most common questions that follow this step relate to the technical requirements of the system. Appendix L describes the basic technical requirements of the CPP. Detailed questions about the technical requirements are directed to an assistant director in Administrative Information Systems who may direct parties to more detailed information at http://www.oti.fsu.edu/portfolio/index.html. If the parties are still interested, the Director of the Career Center, Project Coordinator, and Director of Technology Transfer will share the licensing terms, and work with parties to transfer the CPP. Career Portfolio licensing terms can be reviewed in Appendix M.

Summary

In summary, information relative to the impact of the program and the learner outcome goals identified earlier was collected. With respect to program goals, the data indicate that CPP is a comprehensive, Web-based system for helping students identify learning opportunities relevant to generic workforce skills sought by employers. Employers continue to indicate acceptance of the CPP and a willingness to use it in

making hiring decisions. In addition, the visibility of the program has been established through eight refereed state, regional, and national presentations at professional conferences, several publications, and Internet citations. Moreover, applications have been submitted by FSU for three patents related to the CPP, and information about the dissemination of the program has been created. With respect to learner outcome goals, data regarding the CPP were obtained from students and employers participating in a career portfolio contest in the fall 2003, and an average of 88% strongly agreed or agreed with positive statements related to the learner outcome goals. The Career Center's Portfolio Committee was pleased with the overall quality of the portfolios submitted by students. In addition to the contest, an electronic survey of students completing portfolios as part of course assignments was conducted. An average of 80% of student survey respondents agreed or strongly agreed with the positive statements related to the learner outcome goals for the CPP. It is concluded that a positive impact on CPP program and learner outcome goals has been achieved.

Conclusions and Implications

The FSU Career Portfolio Program (CPP) is now in its eighth year of development and operation. Undertaken almost exclusively with internal funding and the allocation of FSU staff time and resources, CPP represents an expenditure of at least three million dollars. In this section, we summarize what has been accomplished and learned, what remains to be done, and what could happen in the future.

Accomplishments

In developing and operating the CPP for the past seven years, several noteworthy outcomes have been accomplished and achieved.

1. The conceptual foundation and philosophical bases of the CPP appear to be sound and valuable. The Career Portfolio Program has been embraced by a wide array of divergent groups within and outside of Florida State University, which is an unprecedented endorsement of the concept of "career preparation" as conceptualized in this program.

2. The FSU Career Center has succeeded in developing and launching a systems level intervention at the university to promote career development among students. Students do not need to come to the Career Center to use the portfolio system. This career intervention has been endorsed and supported by faculty and university staff in many areas of the university.

3. The skills matrix embedded in the CPP, which enables students to locate learning activities related to nine generic work skills and then enter accomplishments and outcomes, appears to be one of the most unique and noteworthy features of the program.

4. The identification of and consensus about nine core, generic career-related skills across divergent university constituencies is a noteworthy accomplishment. For the first time, there is agreement about the value of work-related skills needed by FSU students entering the workforce.

5. Related to a consensus about the nine generic skills, the CPP permits students to add a tenth skill of their choice that is related to their accomplishments and goals.

6. By June 2004, over 16,048 students out of 37,328 currently enrolled had initiated some level of contact with the CPP. By connecting with such a large number of students, the Career Center has established the most extensive outreach in its history with its core constituency, including liberal arts and professional majors and undergraduate and graduate students.

7. It is noteworthy that FAMU students enrolled in the FAMU/FSU College of Engineering have access to the CPP and can use it in relation to their career preparation activities.

8. The CPP represents an eight year sustained commitment by the FSU administration, particularly the Administrative Information Systems (AIS) unit, to a single program. While the university president who initially led this effort has retired, the program has been continued by the succeeding administration and continues to be sustained through budget support and resource allocations.

9. The CPP has been presented at eight state and national conferences, and other information has been disseminated through professional publications and the Internet (http://www.career.fsu.edu/portfolio/index.html). CPP has attracted attention from other postsecondary institutions in the U.S. and abroad, and efforts are underway at two other universities to adapt and implement it.

10. Because almost exclusively FSU internal funding has supported CPP, this has helped keep the project focused primarily on internal student services and goals. Extramural funding would have introduced another element into the program development activities and it would have attracted personnel with different interests. The FSU Career Center and its Portfolio Task Force (now Committee) has maintained ownership and sustained initiatives over the eight years of CPP operations.

11. The FSU CPP concept, design, and code have now been launched statewide in Florida through the FACTS system. Moreover, the FSU has now established procedures for licensure and purchase of the CPP.

Ongoing Work

Accomplishments notwithstanding, the CPP continues to challenge the staff to improve the implementation and operation of the program. Some of these areas of continuing work are described below.

1. When the CPP was initially conceptualized in 1997, the state-of-the-art in computer technology and the Internet was very different than in 2004. Constant and rapid changes in technology provide continuous pressure to update a technology-based program such as the CPP.

2. In recent FSU accreditation activities for the Southern Association of Colleges and Schools, the Career Portfolio Program was identified as an essential component in enabling the university to implement a major new initiative, the LEAD Program (Leaders Educated to Make a Difference). LEAD is included in the university's Quality Enhancement Plan to demonstrate its ongoing commitment to planning and evaluation as part of its accreditation review. The mission of LEAD is "To provide education and experiences that develop students' knowledge of leadership and ability to demonstrate leadership skills in their scholarly, creative, campus and wider communities." Optimizing CPP in the LEAD Program will provide a high profile opportunity to increase the impact of CPP.

3. There is an ongoing need to help employers and faculty reviewing applicants for jobs or graduate school to learn how to use portfolios in making decisions for hiring or admissions, respectively. Although employers indicate a commitment to use portfolios, the actual use of portfolios in the recruitment process appears to be limited.

4. It is clear that parents of undergraduate students embrace the portfolio concept and the CPP. When presentations are made to parents at orientation sessions, strong interest is evident. Freshmen students, however, are typically focused on other matters during orientation. Developing ways to involve parents in marketing the CPP remains to be done. Formal evaluations of parent views of the CPP should be undertaken.

5. Although 1,441 access keys were created in 2003 and 910 were created in the first six months of 2004, efforts need to be made to increase students' practice of making their portfolios accessible to employers, faculty and others.

6. While Undergraduate Studies (the lower division of the university) recorded the highest number of student users (N = 3,671), only 5.5% of users were freshmen. This suggests that freshmen may be making initial contact with the Career Portfolio Program because of heavy promotion included in the university's First Year Experience Program (FYE) and Orientation.

7. The introduction of CPP to incoming students in FYE and other current students in the university is a time-consuming process for the Career Center staff and CPP managers. To make CPP more visible at FSU, other offices and program staff need to become proficient in delivering information presentations on the CPP. This will be especially true of the LEAD Program's staff.

8. Further research needs to be done on employer usage and reactions to the CPP. We have little data on reactions from employers who do not participate in FSU career expositions or on-campus recruiting.

9. In addition, it is important to learn how students who complete the CPP perform in job interviews. Do students who develop portfolios perform better in interviews than students who do not? Will students report increased usage of the CPP in interview preparation in the future? If portfolios have such an impact, this finding will help students appreciate the benefits of building a career portfolio, even if an employer does not have access to it.

Future Possibilities

What does the future hold for the FSU Career Portfolio Program? We offer the following possibilities.

1. Even though it is a very complex career treatment or intervention, the CPP would benefit from theory-based research. For example, do students with low vocational identity or self-efficacy develop online career portfolios? Do dysfunctional career thoughts impede student development of a career portfolio? Are certain personality types, e.g., Holland's Realistic and Investigative types, more likely to successfully undertake the portfolio development process?

2. There are indications that portfolios will become an important component of accreditation reviews. Organizations that accredit programs and institutions are increasingly including portfolio documentation as evidence that program goals have been achieved. The CPP may have a role to play in that process.

3. Research is needed to examine the extent to which the FSU Career Portfolio Program helps students conceptualize strategies for acquiring and documenting generic workforce skills from available educational experiences within and outside of the formal curriculum. This may have to do with the extent to which the quality of reflective thinking, or positive meta-cognitions, contribute to exemplary portfolio development. Cognitive Information Processing Theory (Peterson, Sampson, Lenz, & Reardon, 2002) might provide a useful scheme for investigating this matter.

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Lumsden, J. A., Reardon, R. C., & Lenz, J. G. (June, 2001). *Online career portfolios: Using technology to promote career development.* National Career Development Association, Tucson, AZ.

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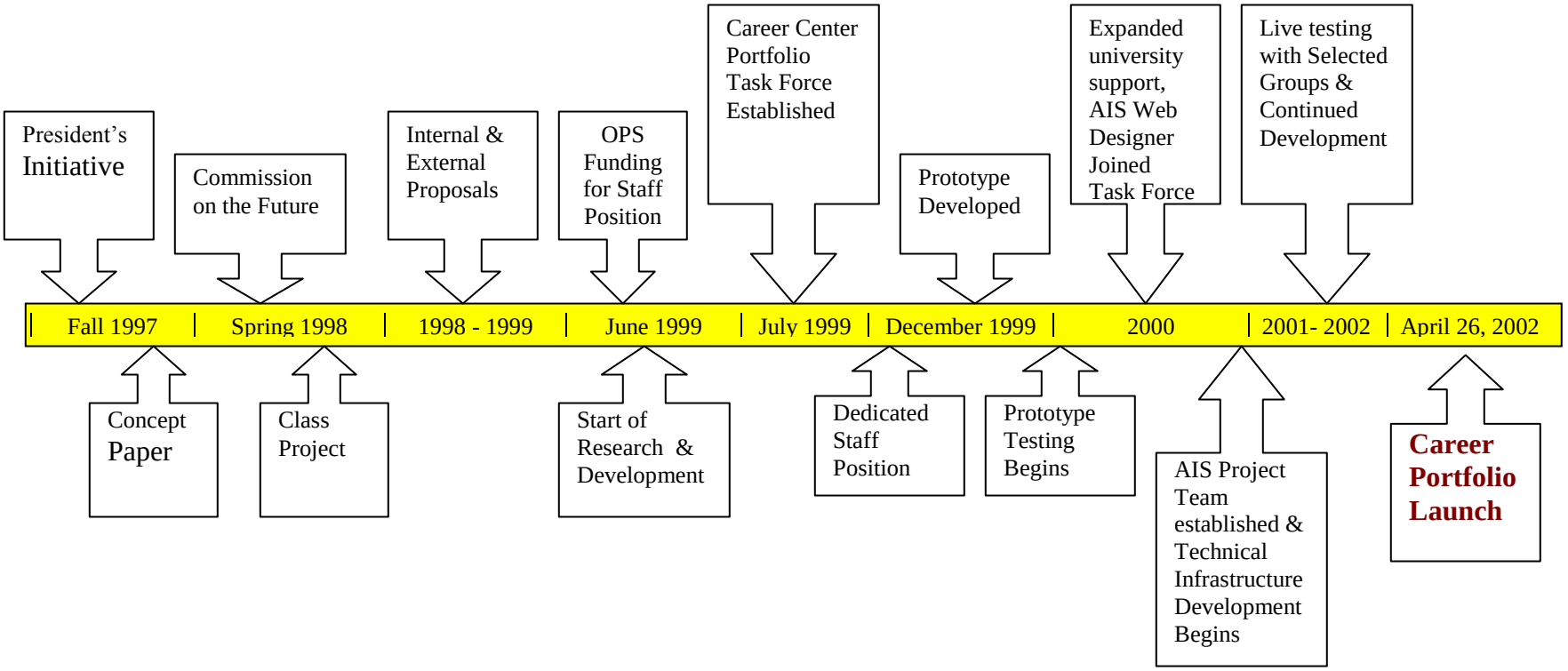
Appendix A

Project Development Timeline

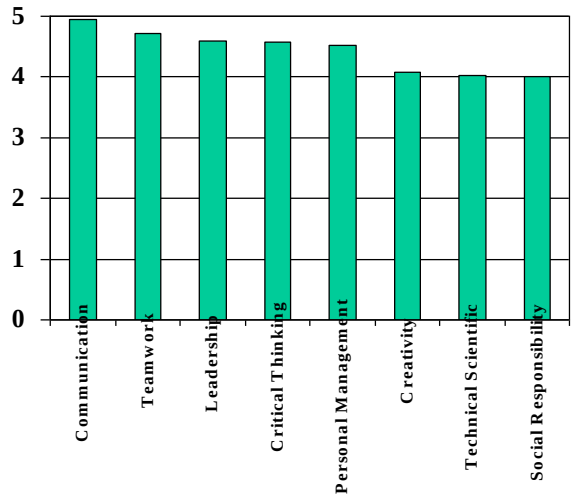


Appendix B

Employer Survey I: Skills Content

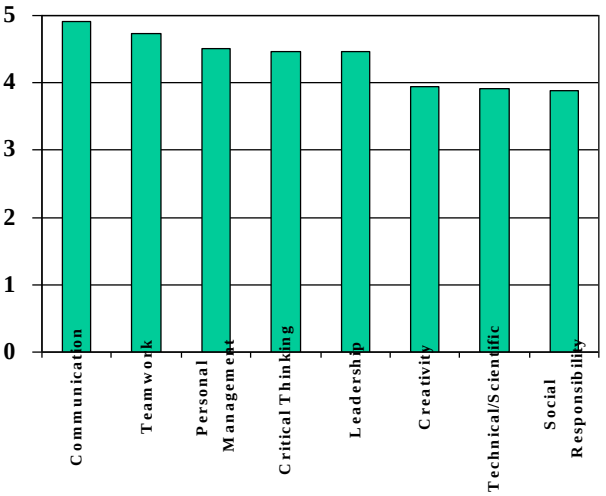
RESULTS:
Importance of Skill to be Successful in Your Organization
(On a scale of 1 to 5; 1 being least useful and 5 being most useful)

Communication	4.94
Teamwork	4.72
Leadership	4.60
Critical Thinking	4.57
Personal Management	4.52
Creativity	4.08
Technical/Scientific	4.02
Social Responsibility	4.01



RESULTS:
Frequency of Skill Use in Your Organization
(On a scale of 1 to 5; 1 being least useful and 5 being most useful)

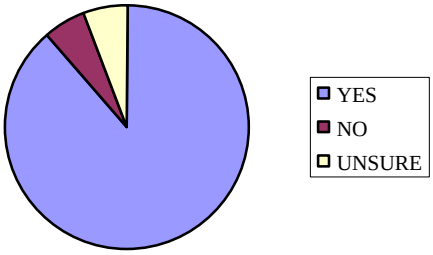
Communication	4.91
Teamwork	4.73
Personal Management	4.51
Critical Thinking	4.47
Leadership	4.46
Creativity	3.95
Technical/Scientific	3.91
Social Responsibility	3.89



Appendix C

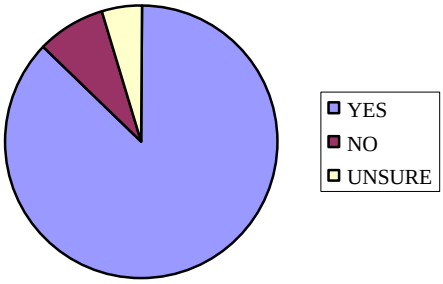
Employer Survey II: Usefulness

1. "Would you be interested in an on-line portfolio system?"



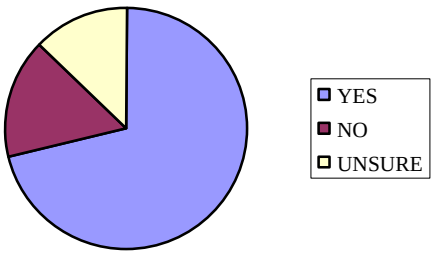
Yes	*88%*
No	6%
Unsure	6%

2. "Would you use an on-line portfolio to screen candidates?"



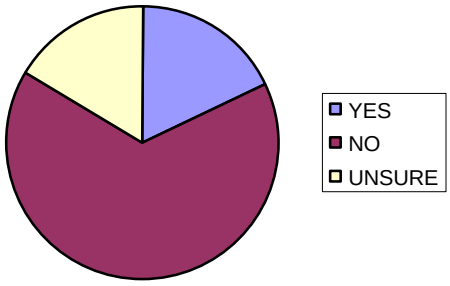
Yes	*87%*
No	8%
Unsure	5%

3. "Would you use an on-line portfolio to supplement a candidate's interview?"



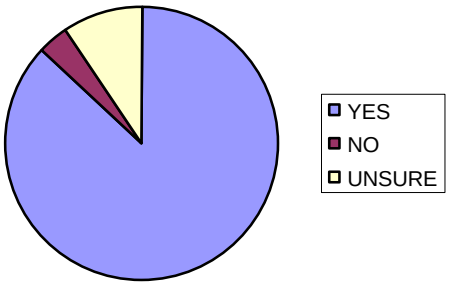
Yes	*71%*
No	16%
Unsure	13%

4. "Would you prefer a paper portfolio rather than an on-line portfolio?"



Yes	*18%*
No	66%
Unsure	16%

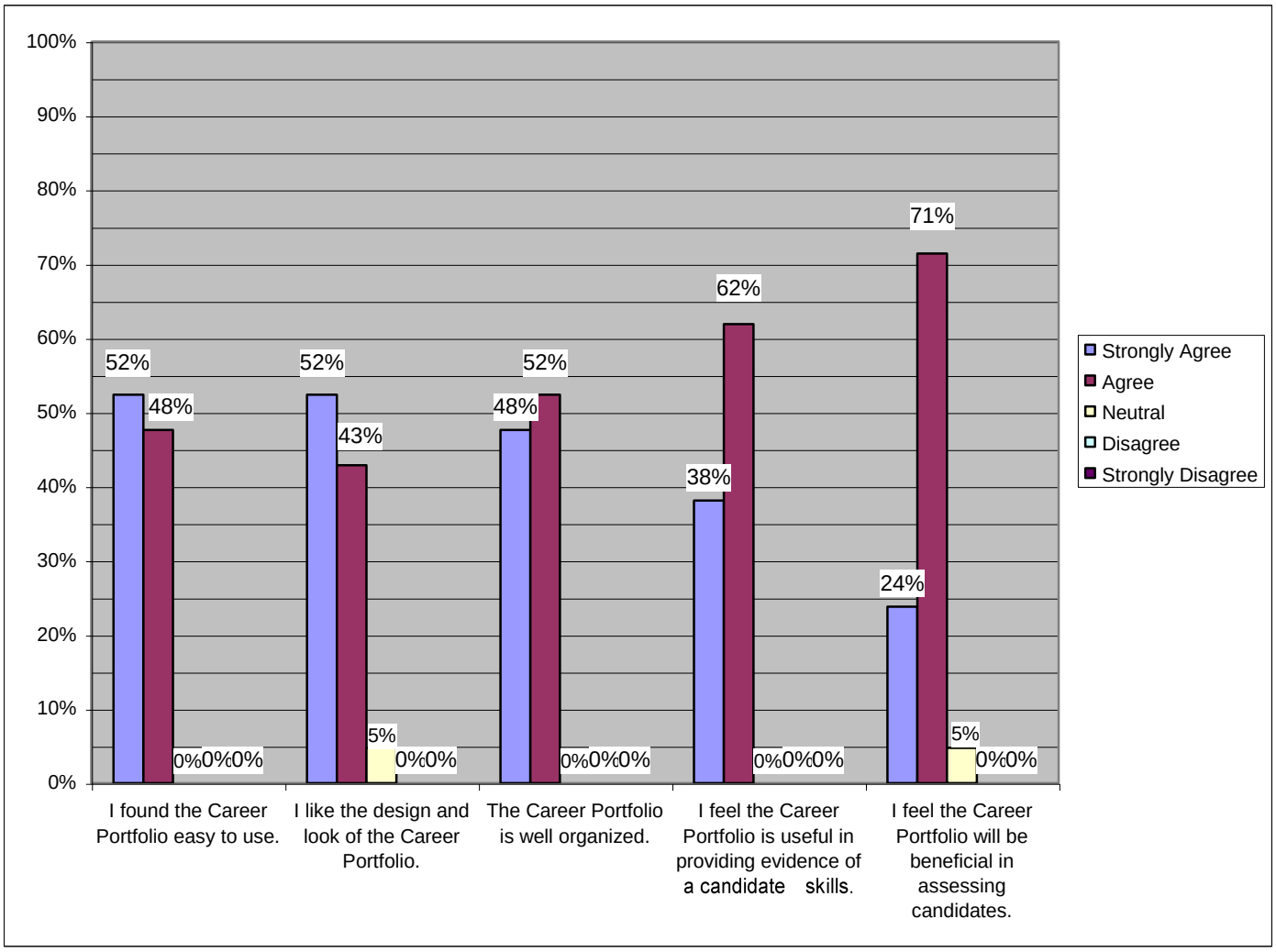
5. "Would access to candidates' self-reported employability skills be useful in screening potential applicants?"



Yes	*87%*
No	3%
Unsure	10%

Appendix D

Employer Survey III: Usability and Effectiveness



Appendix E

Portfolio Outreach Presentations

As of June 4, 2004

Summer 2002

Organization or Group	Number of Attendees
Higher Education	16
Information Studies (LIS 5316)	10
Freshmen Orientation (14)	682
CARE students	300
First Year Experience Instructors	5
Human Sciences (HOE 3050)	75
Biology TA's	55
TOTAL (20)	**1143**

Fall 2002

Organization or Group	Number of Attendees
First Year Experience (4)	72
Human Sciences (HOE 3050)	70
Film	10
Recreation and Leisure	13
Dietetics	55
Nursing	70
Society for Women in Science	40
Career Center Workshops (3)	10
TOTAL (13)	**340**

Spring 2003

Organization or Group	Number of Attendees
Career Center Workshops (3)	15
Higher Education	20
Nursing (2)	126
Golden Key Honor Society	44
Education Honor Society	29
Business (GEB 1030)	108
College of Medicine	60
TOTAL (10)	**402**

Summer 2003

Organization or Group	Number of Attendees
Freshmen Orientation (9)	590
Higher Education	8
MBA	19
Human Sciences (HOE 3050)	70
Resident Assistants (RA')s	35
Biology Teaching Assistants (TA's)	68
TOTAL (14)	**790**

Fall 2003

Organization or Group	Number of Attendees
Career Center Workshops (4)	13
FYE (7)	148
Business	87
Nursing (2)	136
Graduate Textiles and Consumer Science	30
Human Sciences (HOE 3050) (3)	171
Women in Engineering (2)	72
Senior Mechanical Engineering	11
Arts Administration	18
Delta Sigma Pi	12
TOTAL (23)	**698**

Spring 2004

Organization or Group	Number of Attendees
Career Center Workshop	2
Higher Education	15
Communication Graduate Students (2)	19
Business (GEB 1030)	87
Engineering	30
Education (EDF 1005)	35
Nursing	82
Academic Advisors	10
Human Sciences (HOE 3050) (3)	176
MBA Orientation	42
Preview	2
Honors Preview	4
TOTAL (15)	**504**

Summer 2004

Organization or Group	Number of Attendees
Freshmen Orientation (6)	283
Human Sciences (HOE 3050)	70
TOTAL (7)	**353**

Total Since Portfolio Launch: 102 Presentations with 4,230 Attendees

Appendix F

Portfolio Critiquing Form

CRITIQUING THE ONLINE CAREER PORTFOLIO

CRITERIA	COMMENTS
Profile: Does the profile reflect career goals? Is it clear and concise? Does it avoid overwhelming the reader with too much detail?	
Skill Areas: Are skills ranked to reflect objective? Is it stated *how* the experience relates to skill area?	
Resume: Are requirements for viewing included? Is a resume critique needed?	
References: Is all necessary contact information included? Variety of references? Was permission of references obtained? Consistent use of abbreviations?	
Artifacts: Are requirements for viewing included? Does the title tell the reader what the artifact is? Does the description provide the reader with an explanation for including the artifact?	
Overall Appearance: Does the portfolio look professional? Do you want to read it? Correct grammar, spelling, and punctuation?	
Clear and Concise: Are clearly written phrases and paragraphs used throughout?	
Bottom Line: How well does the portfolio present a positive and complete picture of the applicant's qualifications and skills?	
Additional Notes:	

Appendix G

Student Portfolio Usage

Table G1

Student Users by Month and Year°

	Number of Student Users		
Month	2002	2003	2004
January		704	695
February		374	375
March		406	437
April	335	502	435
May	863	658	377
June	748	736	36
July	787	805	
August	1,145	978	
September	752	731	
October	638	556	
November	486	459	
December	613	433	
Total	6,367	7,342	2,355

°As of June 4, 2004

Table G2

Student Users by Gender°

Gender	Users	Percentage
Female	8,827	55.00
Male	7,221	45.00
Total	16,048	100.00

°As of June 4, 2004

Table G3

Student Users by Class°

Class	Users	Percentage
Freshman	891	5.55
Sophomore	2,225	13.86
Junior	2,855	17.79
Senior	7,114	44.33
Graduate	2,312	14.41
Other	651	4.06

°As of June 4, 2004

Table G4

Active and Inactive Portfolio Use°

Activity	Number of Users
Active	8,316
Inactive	8,535
Total	16,851

°As of June 4, 2004

Table G5

Student Users by College or School°

College or School	Number of Students
Arts and Sciences	2,168
Business	2,280
Communication	497
Education	980
Engineering	498
Human Sciences	1,177
Law	99
Medicine	24
Social Sciences	1,447
Criminology and Criminal Justice	501
Information Studies	634
Motion Picture, TV, and Recording Arts	27
Music	331
Nursing	399
Social Work	255
Theatre	103
Visual Arts and Dance	331
Special Student	526
Transient Student	100
Undergraduate Studies	3,671

°As of June 4, 2004

Table G6

Frequency of Skills Cited°

Skill	Number of Uses
Communication	4,134
Leadership	1,881
Teamwork	1,687
Creativity	1,734
Technical/Scientific	1,680
Social Responsibility	1,171
Critical Thinking	1,158
Research/Project Development	1,029
Life Management	868

°As of June 4, 2004

Table G7

Most Used Artifacts°

Artifact Type	Number of Uses
Microsoft Word (.DOC)	1,271
URL Links	210
PowerPoint (.PPT)	206
Image (.JPG)	202
Rich Text Format (.RTF)	40
Microsoft Works (.WPS)	39
Portable Document Format (.PDF)	33
Excel Spreadsheet (.XLS)	32

°As of June 4, 2004

Table G8

Access Keys Created by Month and Year°

	Number of Keys Created		
Month	2002	2003	2004
January		45	87
February		104	233
March		84	197
April	21	251	326
May	34	43	58
June	24	208	9
July	8	142	
August	11	20	
September	67	51	
October	49	164	
November	71	250	
December	133	79	
Total	418	1,691	910

°As of June 4, 2004

Appendix H

Professional Conference Presentations

1	December, 2000, "Connecting Students and Employers: FSU's Online Career Portfolio," Southeastern Association of Colleges and Employers (SACE), Tampa, FL	Refereed
2	March, 2001 "Online Career Portfolio," National Association of Student Personnel Administrators, Seattle, WA.	Refereed
3	May, 2001, "Online Career Portfolios: Powerful tools for colleges, candidates, and employers," National Association of Colleges and Employers (NACE), Las Vegas, NV	Refereed
4	June, 2001, "Online Career Portfolios: Using Technology to Promote Career Development," National Career Development Association (NCDA), Tucson, AZ.	Refereed
5	October, 2001, "Online Career Portfolios: Connecting Academic Advising and Career Development," National Academic Advising Association (NACADA), Ottawa, Canada.	Refereed
6	March, 2002, "Online Career Portfolios: Connecting Scholarship and Practice," American College Personnel Association, Long Beach, CA.	Refereed
7	June, 2004, "Reactions to the Latest Job Search Tool -- Online Career Portfolios," National Association of Colleges and Employers (NACE), Orlando, FL.	Refereed
8	July, 2004, "Evaluation of an Online Career Portfolio: How Technology Promotes Career Development," National Career Development Association (NCDA), San Francisco, CA.	Refereed

Appendix I

FSU Career Portfolio Citations

Compiled by Margie DeBroux

July 28, 2004

Art Institute of Houston. (no date specified). Other Career Portfolios. Retrieved June 21, 2004, from http://www.aih.artinstitutes.edu/qeplinks.asp

- FSU was part of a list of 5 schools and the Electronic Portfolio Initiative.

American Association of Higher Education. Portfolio program search. (no date specified). Retrieved June 16, 2004, from http://www.aahe.org/teaching/portfolio_db.htm; link to information about FSU's Career Portfolio is http://www.aahe.org/teaching/pfoliosearch3.cfm?pfolioid=23.

Burkhart, J. (2003, February 1). Portals and portfolios: Customizable tools for improving e-learning. *Best Educational E-Practices (BEEP). Number 29.* Project Eagle, St. Petersburg College: St. Petersburg, FL. Retrieved June 14, 2004, from http://www.spjc.edu/eagle/research/beep/BEEP29.pdf.

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- 1 of 2 links to portfolio examples.
- Discusses the Skills Matrix.

Butler County Community College. (2002, January 15). 21st Century Learning Outcomes Project Quarterly Report. El Dorado,KS: Butler Community College. Retrieved July 21, 2004, from http://www.butlercc.edu/league/quarterly_report.cfm.

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Career Planning and Employment Centre. (2004). Pathfinders: Helpful CPEC pages to help you find your way! Resumes, CV's, portfolios, cover letters. Retrieved June

16, 2004, from http://careers.mcmaster.ca/pathfinders/resumecv.htm. Hamilton, Ontario, Canada: McMaster University.

- One of two links of career portfolio examples

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Smith, R. (2004). Lee Haines career portfolio profile. *Rebecca Smith's eRésumés & Resources E2portfolios-Explore- Individual Portfolios.* Retrieved June 16, 2004, from http://www.eresumes.com/e2portfolios_explore.html.

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Staub, J. & Johnson, G. (2003, April). Assessment of on-line student portfolio initiatives at Big-10 and other institutions. College Station, PA: Pennsylvania State University College of Earth and Mineral Sciences John A. Dutton e-Education Institute. Retrieved July 21, 2004, from http://www.e-education.psu.edu/portfolios/benchmarking_03.shtml.

Examined all schools in the Big-10 and identified schools outside of the Big-10 who have a major e-Portfolio initiative. FSU was one of the 5 selected as having a major e-Portfolio initiative.

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Vanides, J. & Morgret, K. (2002) STEP ePortfolio Workspace © : A Web-based learning environment supporting pre-service teachers with electronic portfolio creation, reflection and online collaboration. Masters Project for the Stanford School of Education, Learning Design and Technology. Stanford, CA. Retrieved 14 June 2004, from http://ldt.stanford.edu/~keri/project/mySTEPstanford.doc.

"Online portfolio systems range from one page html templates with subheadings to comprehensive systems that scaffolded the user and allow the user to make a variety of portfolios. An outstanding example is the career portfolio offered by Florida State University."

Citations for "A Blueprint for Building an Online Career Portfolio" in Journal of Career Planning & Employment (2001)

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- Listed as a student reading for the proposed course

Voithofer, R. (2003). Supporting digital portfolios in the K-12 classroom: Policies, assessments, training, and technology. Macromedia Educators Resources. Retrieved June 14, 2004, from http://www.macromedia.com/resources/education/whitepapers/.

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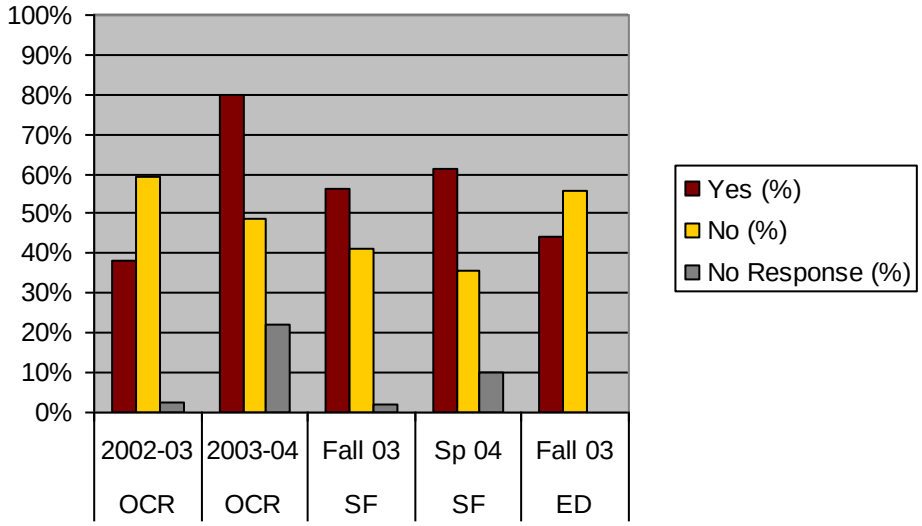
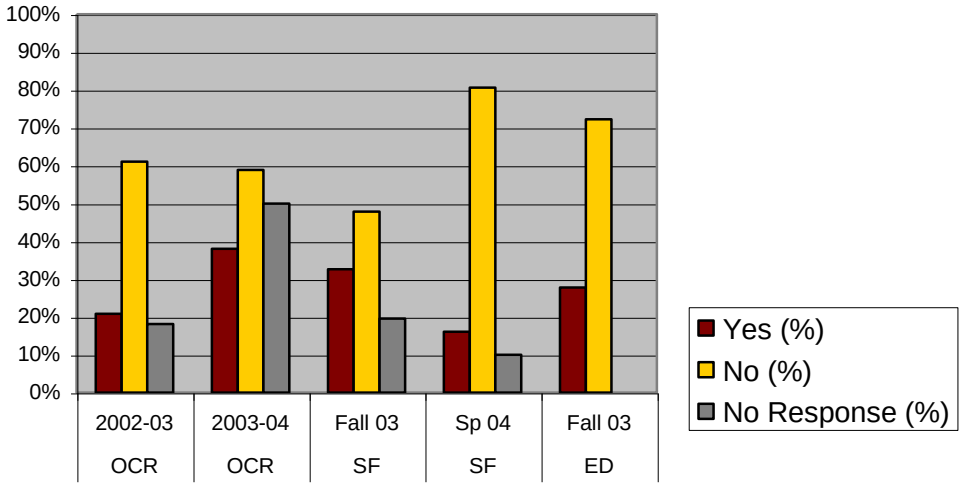
Appendix J

Employer Survey: Familiarity, Access, and Effectiveness

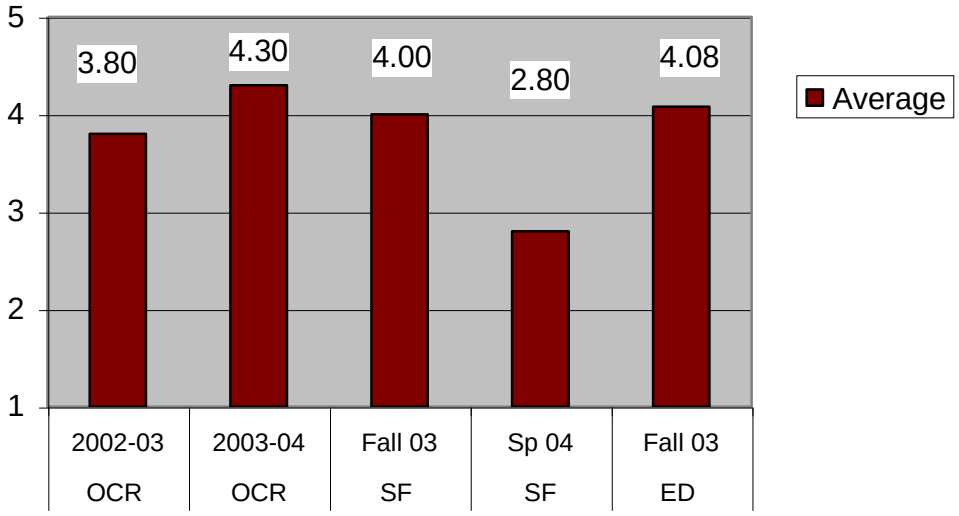
Are you familiar with the FSU Online Career Portfolio?



Have you been given access to a student's Online Career Portfolio?



If yes, how beneficial did you find it in identifying the student's skills as they relate to your organization's opportunities?
(1= not beneficial, 5= very beneficial)



Appendix K

FSU Career Portfolio Inventors

Patent Application 1: Portfolio Creation Management System and Method

Inventors:
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Jeffrey W. Garis
Robert C. Reardon
Myrna P. Hoover
Janet G. Lenz
Juliette L. McDonald
Britton C. Powers
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Patent Application 2: Personal Information Presentation System and Method

Inventors:
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Patent Application 3: Personal Experience Analysis System

Inventors:
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Appendix L

FSU Career Portfolio Technical Requirements

These questions and answers provide an overview of basic information for an institution's Information Technology organization.

How do students interact with Career Portfolio? The system is designed for your students to be 100% web based - once implemented it can be accessed worldwide through the Internet.

What programming language was used for Career Portfolio? This is a Java-based application that will require a Java web application server supporting JSPs and Java servlets.

What Application Server is needed? The system was developed in a Solaris environment with IBM WebSphere as the web application server.

What is the underlying database? The system uses SQL to store and retrieve data from an Oracle database. With refinements it can use most standard relational databases using SQL. (FSU's current users average less than 1.5 KB per student for storage of the personal data in this database.)

How are examples of student work (known as *artifacts* in Career Portfolio) retained? FSU uses an Electronic Document Management System (EDMS) that is shared by other applications serving business activities university wide. If you do not have an EDMS that supports an external Java interface, then you can adjust the system to retain the artifacts in the same database that holds the CP's core personal data. (FSU Students with CP currently average 1.5 MB for their artifacts storage.)

How are features like the unofficial transcript and course validation implemented? CP has access to FSU's SIS which includes the Academic Records database and the Service Records database. The system invokes unofficial Academic and Service Transcripts provided by FSU companion systems. CP has control points to allow each institution to bypass these data sources if they are not appropriate for your institution.

How do students gain access to this secure application? FSU has an integrated secure web services environment that provides authentication level security for many web applications. Each institution will provide their own authentication layer to connect this service to their other offerings. FSU can provide basic information about how this is addressed and how we maintain a "secure state" across various services.

How does the application provide spell checking? FSU procured a spell checking Java object, for a few hundred dollars. This object is sharable by all applications hosted on the server. The system can have the spell checking service deactivated if an institution elects not to provide this service.

Appendix M

Florida State University Career Portfolio

Terms For Non-Exclusive Educational Licenses

1. **License Agreement** - FSU and its Research Foundation (FSURF) as LICENSORS will provide non exclusive licenses to educational institutions (LICENSEES) to modify and use the Career Portfolio concept, design and software for all educational, administrative and non-commercial purposes across their institution for a minimum 10 year period extendable at the request of the LICENSEE.

2. **Field of Use** -The rights are restricted to any and all educational, administrative and non-commercial purposes across the LICENSEE institution. Rights to grant sublicenses to others, for example local high schools, can be provided upon written request to LICENSORS.

3. **Technical Support** – LICENSEES are responsible for the adaptation, customization and implementation of the Career Portfolio software at their respective institutions. FSU will consider requests for contracted programmatic or technical support on a case-by-case basis.

4. **Collaborative activities** - Continuing collaborations amongst all LICENSEES and LICENSORS via a USER Group is proposed (to be elaborated at the Seminar).

5. **Improvements and New versions** will be made available to the members of the Users Group by LICENSORS cost-free, but with minimal technical support, or at a level as negotiated amongst, and paid by, members of the User Group.

6. **Compensation to IP Owners** – A one-time license sign-up fee of $ 20,000 is being charged. There will be no other fee, except as agreed amongst the User Group members.

7. **Patent activity** – FSU Career Portfolio is covered by three FSU patent applications. LICENSEES will receive rights under any issued Patents. FSU Is solely responsible for patent maintenance and seeking any additional patent coverage. If there is evidence of patent infringement, FSU will determine appropriate action.

8. **Indemnification and Warranties** - FSU is unable to provide any warranties with respect to suitability for the markets, freedom from infringement of third party patents, etc. FSU will be unable to indemnify any LICENSEE.

9. **Boilerplate terms** – The License will also contain other legal terms as are common in agreements amongst not-for-profit educational institutions.