LAUNCHING YOUR CAREER IN HF/E:
GUIDELINES FOR SOARING HIGH IN THE JOB MARKET

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Welcome to the Eleventh Annual Human Factors and Ergonomics Society Career Panel. This year's proceedings paper emphasizes the importance of career planning and preparation throughout the graduate school experience. It addresses what to do if you are getting an early start on career planning and if you are fairly far along in the graduate school experience, even if you did not begin early career preparation These topics are most timely, because in a very competitive labor market outstanding preparation is vital, and if one did not do the appropriate preparation remedial action may be necessary.   Fortunately, early preparation (or even taking remedial action) enhances the entire graduate school experience. The panel itself will address questions from the audience about careers preparation. A second paper will be produced by Christina Mendat, a PhD Candidate at North Carolina State University based upon the panel presentation and will be available upon request to session attendees and included alongside this paper in the 2005 edition of the Career Resource Guide.

THREE-TWO-ONE, BLASTOFF!
Anthony D. Andre, Ph. D.

Let's face it; you are not going to conquer the current HF/E job market by simply meandering your way through the process. Not in this economy. To gain a competitive edge, and to land one of the few premium jobs available to recent graduates, you have to take your game to a higher level! The following are some guidelines for soaring above the competition; or at the very least, presenting yourself in the best light possible.

Step 1: Walk Away from Graduate School with Something in Your Hand

For starters, you have to actively craft your graduate career in a manner that generates tangible examples of your experience, skills, approach and philosophy. The main goal here is to be able to leave graduate school with samples of your ability to evaluate a product or work environment, design a user interface, perform an ergonomic evaluation, design and conduct a usability test, etc.
Here are some tips towards that objective:

- Keep an electronic copy of all reports and exercises.
- When possible, revise your materials to reflect the comments and suggestions made by your professors.
- If you evaluate or design a real product as part of a class exercise, consider contacting the company behind the product about extending the project beyond the class.

- If you have a choice between two courses, one that includes a project or design exercise and one that doesn't, take the former (all else being equal).

Step 2: Focus on Process First, Then Results

I realize that you are probably experiencing a chicken-egg dilemma right now. You ask "how can I show my work when I don't know what I'm doing yet?" The answer is to focus on process first, results last. It's a huge mistake to show a prospective employer (or more accurately a group of people at a company you want to work for who have nothing better to do than to criticize everything you show them) your (re)design of a user interface. What you should do instead is describe, as visually as possible, the process you engaged in that allowed you to confidently create a better design. How did you learn about the users, their interaction contexts, their goals or their interface needs? How did this information translate into general usability objectives and specific design attributes? How did you establish the optimal workflow and interface architecture? These are the more important (and safer!) experiences, skills and approaches to demonstrate.

Step 3: Develop a Multi-Media Resume

Now that you have something worth showing you need to present it in a form that is worth seeing! So, make a paper airplane out of your boring resume and learn how to present yourself in a way that makes you soar high above all other applicants. Don't limit yourself to just a paper document--think "multi-media experience." Create a PowerPoint, Flash or HTML presentation that highlights your HF/E approach,

skills, experiences and impact.   Not only is this the most powerful and effective method for demonstrating your abilities, the design of the presentation itself is yet another opportunity to showcase your talent. And don't be afraid to be dynamic here. After all, it's the "new" millennium, so include images, animations, movie clips, etc.

Step 4: Prepare for Steps 1-3 Now, Not Later!

Truth be told, the key to this plan is to document your education, internships, past jobs, etc. while they occur, not after. Make sure you: 1) obtain photos of yourself conducting contextual inquiry tasks in various user environments, 2) capture images and video of users struggling with work environments or product interfaces, 3) scan drawings and illustrations of brain storming sessions and early design concepts, 4) develop a visual flow chart of your design and evaluation process, and 5) maintain a collection of good and bad interface examples.

Step 5: Close the Deal
Once you have created your presentation you can either send it to the interviewer via email, to review before your interview, or show it during your interview via a laptop. I suggest doing both. I hope that I have convinced you that a more modern approach to the traditional resume will allow you to more easily demonstrate, to any employer, that you belong in this field and can have a positive impact on their product or workplace!

CONVERTING GRADUATE SCHOOL EXPERIENCES INTO A JOB
Janet I. Creaser

Students should carefully consider all their graduate school experiences when looking for their first job. The first thing required is a reality check. Graduate school can be highly rewarding and sometimes daunting. At the end of the process, your ability to adequately assess your own value and skills may be skewed—you may believe you're not quite ready for the demands of a job or you may believe you're the most exceptional student in the world. Either way, you may not be adequately assessing your total value. It is important that you leave graduate school motivated and confident in your abilities, but you also want a clear picture of what you can do and what you still want to learn.

Sit down and write out everything you did and were connected with during graduate school. Note every conference you attended, professors or industry professionals you made contacts with, courses you took, fields of research that interested you, and work you did for classes, your supervisor and for yourself. Document all your skills gleaned from your HF work and from other activities—even if you only did something once, it's an item worth thinking about. Chances are if you did something once, you can probably do it again. If there is something you cannot do, always wanted to learn, but

did not have the resources to do so during graduate school, put that on your list. A good first job is one that provides you with the right balance of tasks you can do and those which challenge you to learn new skills in order to complete them.

Figuring out what career path to follow is possibly the hardest question for those looking for their first job. Is it necessary to do a PhD? Is it better to secure an internship first then look for a permanent position? Do you stay in the domain (e.g., transportation) you focused on in graduate school, or do you look for jobs outside of it (e.g., medicine)? There is no right answer to any of these questions. Once you have a comprehensive list of your skills, abilities and interests, you may find it easier to decide. If you want to branch out into a new domain, consider how your current skills may transfer. Reframe your thinking from, "I only did driver safety research" or "I only did aviation" to "I worked with simulation environments. I studied training techniques. I have a strong experimental background and knowledge of human factors practices."

Internships can help with career-path decisions. An internship offers the chance to practice your skills and to figure out what skills you still need to make yourself more marketable when competing for permanent positions. For example, a psychology grad might learn the benefits of being able to do simple programming to create rapid prototypes, or a design grad might realize the benefits of knowing more HF psychology. If you are uncertain about pursuing a PhD, a well-timed internship at the end of your master's degree will let you know whether you can be successful without it and expose you to opportunities you might like to pursue that do not require a doctorate. A good internship will hopefully put you in direct contact with a network of individuals with PhDs and with master's degrees who can explain the opportunities for each degree level. For example, certain government agencies prefer to fund proposals from individuals with PhDs. If your interest lies in research—even at the corporate level—a PhD might be the way to go. However, in many industries, a master's degree and appropriate experience is sufficient for success. One issue with only having a master's degree is that it may take a little longer to reach certain career objectives. But if you know this, are prepared for it, and a PhD is not on your agenda, you can plan accordingly. Finally, performing well during an internship could also land you a full-time position with the company if one becomes available, or at the very least, provide you with connections for future opportunities.

If you prefer a full-time position immediately, considering the above information can also help you choose opportunities appropriately and cement career goals. Consider your first job, whether it's an internship or a permanent position, as the best chance to learn everything you possibly can. Perform well, develop new skills, network and you are on your way to a successful career.

INTERVIEW PRESENTATION TIPS
Jeff English, Ph. D.

Congratulations! You've got the interview. In preparing for it, you will want to focus on the aspects of your education and work history that demonstrate your suitability for the position. Managers making hiring decisions are generally risk-averse and look closely for evidence that you will be a good fit in terms of education, experience, potential to grow, and team relationships. As a result, interviewers commonly require candidates to present examples of their work history in an informal discussion or full presentation. This is especially true in design and usability positions. There are 4 key points to consider when preparing yourself and your portfolio that will give you a clear edge over others: organization, confidence, knowing the audience, and clarity of communication.

Point 1: Organization

Are you ready to demonstrate that you are a great fit for the job? Be ready early, thoroughly prepared. There are few things more distracting than a candidate that is late, has computer setup problems, or does not bring copies of their resume and presentation printed out and ready to go. Leave a lot of extra time for travel. You can always get near your interview location early then find a coffee house to relax and review your presentation one more time.

Many candidates spend too much time on weak introductions and their early portfolio. Start off with a succinct overview of your education, years of experience, and career highlights. Invest your time wisely by practicing your introduction. The impression that you make in the first few minutes is the most important for engaging your audience.

After the introduction, many candidates begin a retrospective of their work, starting with their first job in the field. Instead, consider starting with your most recent relevant experiences. The content will be fresh in your mind and more contemporary than something that you worked on several years ago. Be sure to watch the time during your presentation and pace yourself so that you cover your material and have time to take questions.

Point 2: Confidence

A firm handshake, eye contact during the greeting and a pleasant smile are all of the freebies that let the interviewers know that you belong in their environment. It's normal to be nervous – but remember that interviewers are ultimately trying to picture themselves working with you. It's simple to picture a candidate starting the job that appears comfortable in the corporate surroundings and with the interviewers. Finally, be sure to project your voice during the presentation and bring a small bottle of water with you to calm your stomach and avoid cottonmouth.

Point 3: Knowing your audience

Many interview presentations include participants from the other teams that you might work with. These participants don't make the hiring decision, but they do influence the hiring decision. The point here is that audience members will be evaluating you against their own needs and not necessarily against the literal job requirements. For example, people from other teams focus on understanding how you will work with them if you are hired, and leave the technical evaluation to the hiring manager. Will you be an "I have to do it my way" kind of person, or will you be a pleasant negotiator? Be prepared with a few strong examples of how you handled difficult work situations and decisions. Covering the technical requirements AND your lessons learned is a challenge that you can address only if you understand the roles of those attending your presentation. If you don't know the roles of those in your interview team, ask beforehand!

Point 4: Clarity of Communication

Demonstrate your prior successes by creating a simple, clear presentation. Keep the interview team focused on your main points, not distracted by backgrounds that compete with your content for attention or tiny formatting. Try to replace dense text with a chart or collage of images that you can narrate. This gives you flexibility to make points that address the kinds of questions posed to you and the interests of your audience. Don't forget to spell check everything and have someone proofread it. Also, if you are using your laptop and a projector, clean off the "desktop" of your operating system and put everything that you need in a single folder. It will show you as an organized person (see number 1 above) and will help you and your audience stay focused on your content.

SUGGESTIONS FROM BOTH SIDES OF THE INTERVIEW TABLE
Arnold M. Lund, Ph. D.

I write as one who has sought and won many jobs, and as one who has hired many people. You might think that there are only two steps in your career: getting your degree and getting a job. In fact, what you are really preparing for is to find the right job, succeed at it, and to be happy and energized while doing the job. To begin your career most effectively (to design your plan for experiences while in school and to get that perfect job) and to grow it, perhaps the most important step is to look inside and clarify for yourself what you really want to do. What do you enjoy and what gets you excited? What got you started in the field; and what experiences have you found the most rewarding and the most painful?

Knowing the answers to questions like these helps you personalize your training, and will be filters that you use when interviewing for various jobs. Furthermore, probing to determine whether a job will satisfy these needs will communicate your interest and commitment to those who are

interviewing you and that you are interviewing. Note that to really understand what you enjoy, you should be using your education to explore experiences that represent the range of experiences you might encounter in your future. You should be working on teams. You should be seeking internships. You should be doing research and design, and you should be struggling within the constraints of a deadline.

What makes your background attractive to someone with a vacancy? The things that will help you get the job are often the same things that will make you successful once you get the job. The foundation of course is demonstrating success in a core curriculum that is relevant to the job. You might also explore relevant courses outside of your core curriculum and that represent the future of the field can give you an edge in the jobs you will be pursuing. In software, for example, design courses from the art department and courses in anthropology and ethnography would help you stand out. Research in areas relevant to the employer may catch a hiring manager's interest. Publications in refereed journals will demonstrate the quality of your research.

Increasingly interviewers are using behavioral interviewing techniques. Behavioral interviewing attempts to elicit concrete examples of how you have behaved in situations in the past that might occur in the job you are seeking. Enriching your training with experiences that will allow you to demonstrate what you can do in the job will help prepare you for the interview, for getting started in the job, and for evaluating what you like and don't like to do. Internships, active leadership in local chapters of professional organizations (driving initiatives that you have come up with), work on teams, consulting (e.g., creating a Web site for a non-profit and using your design and usability skills in the process) and so on will provide the educational background that takes your credentials up another notch. If you've actually delivered something, some kind of "product" in the skill area you are applying for, that will really make you stand out.

With this great background, the final question is how you show up in your interactions with potential employers. Hopefully you haven't waited until just before graduation to make connections with the employers. Internships can open doors, and networking during the course of your career can help as well. Two of the biggest slips I see when people apply for jobs are when people write letters and e-mails with poor grammar and weak content, and when they create resumes that are not well designed informationally or aesthetically. We are in a field where it is important to communicate, and if you can't communicate about something as important as a job and your background it reduces your credibility. Look for best-of-breed, successful models to adapt; and get tough, honest friends, colleagues, and mentors to help you refine your letters and resumes. You can make your resume stand out for some jobs by supplementing it with a well designed Web site, examples of your research and/or design work, and

other techniques. Again, you want your portfolio to be a representation of the best work you would offer if you got the job. While it takes extra work, customize your resume and letter for each job as appropriate. You should prepare for interviews by studying the company and its business, reading publications from the department(s) that you are interviewing with, and preparing the questions you are going to ask. Those questions should reflect your professional interest in the challenges of the work and signal how you would jump in and start to tackle them. They should also include questions to ensure the job contains the attributes that mean the most for your happiness and growth. You should actively be sending signals that you want the specific job for which you are interviewing, and you should tell the story of how you will bring value to that company. With an understanding of where your passion lays, the right experiences, and preparation so you show-up in the interview process in a way that reflects your passion as it applies to the job, you will stand out from the other candidates and probably will have a chance at a great career in the company.

MEASURING YOUR PROGRESS
Ronald G. Shapiro, Ph. D.

How are you progressing on Launching Your Career? Let us do an assessment to find out. Answer each of the following twenty questions. The right answer to each question is "Yes," but don't just answer "Yes" or "No" to each question. Take a few moments to reflect on what you have really gained, what you are planning to gain from each of the activities mentioned, and then what might be gained by repeating the activity. Write down a date by which you will be able to go back to each item on this questionnaire, answer the question with a "Yes." Repeat the checklist on that date. If you are reading this article early in your academic career, repeat this checklist once or twice a year to be sure you remain up to date on "Career Readiness."

Have you:
1. Read the "Quick Tips for Finding a Human Factors/Ergonomics Job in Industry" booklet available free on HFES.ORG?
2. Read in detail the "Preparing for Your Career in Human Factors/Ergonomics: A Resource Guide" available free on HFES.ORG?
3. Established career goals for yourself that you can clearly articulate and interviewers will appreciate? Have you articulated them to others and received feedback?
4. Developed technical expertise in at least one area of specialization such as software, aviation, or military systems in addition to human factors?
5. Learned how to prototype your design ideas? Do you have samples to show? Are you prepared to explain how you know that your design is good?
6. Prepared a resume for yourself as an ideal job candidate for the jobs you are seeking, identified

gaps between yourself as the perfect candidate, and yourself as you are today, and prepared an action plan to close these gaps? Are there dates next to each item on the plan? Are you following through on the action plan?

7. Included a description of what you have accomplished for each of your job assignments (as opposed to what you were assigned) in your resume? Does your resume show that you were successful? How do you know?

8. Prepared a Multi-Media resume as Tony suggests as well as a traditional paper resume? Have you iterated on it many times? Have you had the latest draft critiqued by at least half a dozen individuals who have looked for every possible gap or defect?

9. Explained your technical work so that people not in the field understand the work and why it is important to them?

10. Explained how your technical work might be applicable to an application after hearing a brief discussion of the application?

11. Practiced presenting Human Factors to various groups of people not familiar with the field? If not, have you made plans to do so? (The Human Factors Society Speakers Bureau and National Ergonomics Month activities provide an excellent opportunity to practice presenting Human Factors materials.)

12. Met (or will you meet) and have a meaningful conversation with at least 10 Human Factors Professionals per day at the conference? Will you remember who they are? Will they remember you positively? How do you know?

13. Been involved with technical activities through HFES or another group? If not, you might wish to become involved. Talk with a committee chair this week.

14. Included plans to attend Technical Group Business meetings to volunteer to help out (and to network) while at the HFES meeting?

15. Volunteered to help one or two technical groups by writing articles for the newsletter or website, or offered to help edit the newsletter or the website?

16. Explained how you have been able to improve a process, product, or solution by effective negotiation? If not, have you taken a negotiations class?

17. Practiced interviewing with a series of challenging interviewers?

18. Prepared answers to obvious questions such as "What is the most important technical work you have done?", and "What has been the most important contribution to the Human Factors field in the past year?"

19. Planned (if your career choice is industry) to complete at least one internship prior to graduation?

20. Planned to know a great deal about the company you plan to interview with and the people who might be interviewing you prior to going on an interview?

Remember to take this survey every few months adding new accomplishments next to each item and setting new goals for each item until you land the ideal job.
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NOTE