Advising for the Future: Preparing College Students for the 21st Century Through the World Wide Web

National Academic Advising Association
Pre-Conference

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The Ohio State University
University College

Virginia Gordon
Melinda McDonald
George Steele
THE FUTURE WORKPLACE

Answer T (true) F (False)

1. Service industries (such as education and business) will be among the slowest growing sectors of our economy in the future?

2. Groupware and flash technology are just two of many new technologies students may work with.

3. Smart manufacturing refers to people who are capable of learning new production methods.

4. Actuaries and meteorologists are among the fastest growing occupations to 2005, according to the U.S. Department of Labor.

5. People with a Bachelors' degree earn about the same amount of money as people who have some college or an Associate's degree.

6. Men make more money than women in the same job, except in the field of Education.

7. A third of all new jobs created by the year 2005 will require a Bachelor's degree.

8. "Career ladders" (or structured opportunities for advancement) will continue to be available in the work place of the future.

9. Employers and high school students agree that most students are very well prepared in basic job skills.

10. One job skill that will increase in importance in the workplace of the future is the ability to work alone.

Please write a description of these jobs of the future:

Crytologist: ________________________________

Neutrino Astronomer: ____________________________

Selenologist: ________________________________

Thanotologist: ________________________________
NACADA Pre-Conference Workshop P1

Advising Students for the Future: Preparing College Students for the 21st Century through the World Wide Web

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Assumptions of the Workshop

- Academic and career decisions are seen as one and the same by most students.
- Technology is revolutionizing the advising process.
- The world of work is undergoing significant changes. Old assumptions no longer fit today’s or tomorrow’s realities.
- Effective academic advising can integrate career advising with new technology.
- To be effective, academic advisors must consider how technology and new developments in the world of work will influence practice.

Career Trends Topics:

- 25 Breakthroughs in our lives
- Top technology development for the next ten years
- Work trends
- 26 Hot jobs
- Job outlook 2005
- Bachelors’ degrees and earning power
Some Jobs of the Future

- Aquaculturalist
- Asteroid-lunar Miner
- Biotech medical technician
- Cryologist
- Laser medicine practitioner
- Neutrino astronomer
- Planetary engineer
- Pollution botanist
- Robot trainer
- Selenologist
- Space trainer
- Thanatologist
- Underwater archaeologist

Work Trends

- Increased specializations
- Services are the fastest growing sector
- Agriculture and manufacturing sectors shrinking
- Rapid growth of information industries
- More women in the workplace
- Second and third careers common
- Work ethic changing
- Two-income families the norm
- Work done by teams
- Number of managers decreasing

Career Trends Topics Continued

- Career ladder or lattice?
- Are students ready for work?
- Reasons why college graduates fail as employees
- Required workplace competencies
- Are students ready for work?
- Hierarchies of employment skills DOT
- New work rules
C. Kleiman:

"Most of the jobs having exceptional potential for the future have familiar titles, though education and training required and the way the jobs will be performed will be radically different."

Required Workplace Competencies

- Competent use of resources
- Excellent interpersonal skills
- Competent use of information
- Knowledge and use of many types of systems
- Can use and apply technology
- Excellent basic skills: Reading, writing, computational, communication
- Ability to learn, reason, solve problems, etc.
- Reliable personal qualities: Responsible, sociable, integrity, etc.

Small Group Exercise

- Share examples of advising sessions in which you recognized the need for occupational information but lacked the knowledge base to provide it.
- What occupational and career information do you need to effectively advise students?
- Where and/or how does your institution currently provide this information?
Question

Is the occupational and career information you need for both you and your students available on the Web?

Summary: Occupational Information

- Can help narrow academic and occupational alternatives.
- May correct inaccurate information or stereotypes about specific occupations.
- Open doors to new options never considered before.
- Reveal the rewards (and limitations) in specific occupations.

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- Effective academic advising can integrate career advising with new technology.
- To be effective, academic advisors must consider how technology and new developments in the world of work will influence practice.
### Academic Advisor Role

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<thead>
<tr>
<th>Information</th>
<th>Advisor</th>
<th>Counselor</th>
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<tbody>
<tr>
<td>Role:</td>
<td>Provider</td>
<td></td>
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<tr>
<td>Focus:</td>
<td>Facts:</td>
<td>Integration of information and values, major/career goals exploration process</td>
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<td>Feelings,</td>
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### Role of Theory

Provides a framework for advising practice that includes:
- A set of guiding principles and beliefs about students and the advising process
- A set of strategies and techniques for conducting advising

### Role of Theory

To help us evaluate the use of information (and technology as a way of providing information) and when and how it should be used in the advising process.
Case Study

Holland: Trait-and-Factor

- The choice of an occupation is an expression of personality. Vocational interests are the expression of personality in work, hobbies, recreational activities and preferences.
- The members of an occupational group have similar personalities and similar histories of personal development.

Holland: Trait-and-Factor

- Because people in an occupational group have similar personalities, they will respond to many situations and problems in similar ways; thus, they create characteristic interpersonal environments.
- Vocational satisfaction, stability, and achievement depend upon the congruence between one's personality and the environment in which one works.
Holland: Trait-and-Factor

- Most persons can be categorized as one of six types: Realistic, Investigative, Artistic, Social, Enterprising, or Conventional
- Work environments can also be categorized using the same six types.

(Holland, 1973)

Model of Career Planning

Sandra Cohen-Weike, from Salisbury State University, has proposed a good general career planning model. She has established yearly goals for undergraduates that serve as good milestones to guide and evaluate their career planning.

As a First Year Student

First Year: Awareness:
- Identify your personal interests, abilities and values.
- Find out what careers relate to initial/tentative choice of majors.
- Develop work related behaviors such as punctuality, reliability, and conscientiousness.
As a Sophomore

Second Year: Exploration
- Take responsibility for life/career decisions.
- Explore more deeply career/major choice.
- Gather information from professionals in relevant academic and career related fields.

As a Junior

Third Year: Preparation
- Have major selected and continue taking courses in it.
- Start researching graduate and professional schools.
- Gain work related experience in desired career field.

As a Senior

Fourth Year: Choice
- Network in chosen field.
- Focus on career choice.
- Become a professional.
Perry: Intellectual & Ethical Development

Dualism
- Simplistic approach to reasoning
- Right vs. Wrong
- External control
- Authority has right answer
- Need structure

Relativism
- Synthesize diverse elements of reasoning
- Internal locus of control
- Self is primary focus of decision making process
- Analytical reasoning
- Uncertainty is legitimate
- Commitment
- Accept pluralistic world
- Committed to embodied identity
- Connected to context and style of identity

Case Study Discussion

- To determine the appropriate use of the Web with students.
- To consider the key advising issues involved in specific student's situations.
- To suggest how they would advise students on using the Web in terms of content and use.

Action Steps

- What steps do you need to take to better integrate academic and career advising?
- What steps do you need to take to initiate the use of the Web in your advising?
- What steps must you encourage your institution to take to assist you in achieving your goals?
CASE STUDY: SUSAN

Susan, an advisee of yours, enters your office expressing concern about changing majors again. A year and a half ago when she started college, she was considering nursing and business. At the end of her first quarter, she said she decided to pursue a degree in Accounting. She told you at the time that she wanted to be sure she would have a job when she graduated and that friends and relatives said that Accounting offered security and opportunity for advancement.

Despite your encouragement, Susan did not attempt to do any additional research into the career field. After checking with you about major requirements, she began to take courses for Accounting. However, she now finds that she does not like the prerequisite courses for Accounting. The math and computer courses, in particular, are boring. Consequently, she is not doing well in them.

Susan tells you how frustrated she is with her lack of progress and that she feels she is behind. Her parents are supportive but all of her friends know what they want to do and are in their colleges. She states, “I feel like I’m never going to graduate”.

As you begin to review the courses she has taken during her first year and a half you ask her, “What courses did you like best? What courses did you like least?” Susan informs you that she enjoyed her courses in Art, English and History but that she disliked her courses in math, computers, and sciences. You indicate to her that even though she was interested in Accounting, she has not taken any courses yet in that department.

Your discussion turns to other things she likes to do. She says she likes reading, going to movies and doing things with her friends. Being with her friends is very important to her.

You also learn that she is currently working in the dining halls to help pay for her education. Unfortunately, she does not like the job because she believes it is too menial. However, she is looking forward to her position as a lifeguard this summer at a community pool, where she’ll be able to hang out with all her friends from her hometown.

You ask about any additional work related experience. She said during her last two years in high school she worked as a cashier in a food store. She said the job was “okay”, but she did not like the hours.
CASE STUDY: SUSAN

1. What are the immediate advising issues? What are your theoretical assumptions?

2. What type of educational and career related information does she need? How could you help her access both types of information?

3. What probing questions would you ask to determine if this student is ready to use the Web?
Trait and Factor Theory - Holland

How does this theory provide you with insights to help you advise this student?

What would be some advantages and disadvantages with using the selected Web sites with this student?
Career Development Model (Salisbury State)

How does this theory provide you with insights to help you advise this student?

What would be some advantages and disadvantages with using the selected Web sites with this student?
Cognitive Development (Perry)

How does this theory provide you with insights to help you advise this student?

What would be some advantages and disadvantages with using the selected Web sites with this student?
ACTION STEPS

What steps do you need to take to better integrate academic and career advising?

1.

2.

3.

What steps do you need to take to initiate the use of the Web in your advising?

1.

2.

3.

What steps must you encourage your institution to take to assist you in achieving your goals?

1.

2.

3.
Estimated Supply and Demand for College Graduates of 1997-98

Research is conducted each year by staff of the Collegiate Employment Research Institute at Michigan State University to provide current supply and demand information on placement of new college graduates. Positioning for each academic major was accomplished by checking employer requests for graduating students, identifying the placement rates for graduates in recent years, and consulting with all Career Services and Placement staff on their experiences with placement of graduating students and alumni.

High Demand/Limited Supply
Accounting Coll. Teaching
Accounting, Professional
Chemistry Teaching
Computer Science
Earth Science Teaching
Engineering College Tchng.
Finance Coll. Teaching
Human Medicine (MD)
Industrial Arts Teaching
Learning Disabilities Teaching (MS & exper)
Management Science
Materials Science
Mathematics Teaching
Operations Research-Management Science
Osteopathic Medicine (DO)
Physics Teaching (BS, MS, PhD)
School Psychologist/Diagnostician (EdS or PhD)
School Social Worker (MSW)
Teaching of the Emotionally Disturbed

Good Demand/Possible Shortage
Accounting
Agricultural Education Teaching
Bilingual Spanish (with engineering or business as a major)
Biostechnology Teaching
Business Coll. Tchng.(PhD)
Civil Engineering
Clinical Laboratory Sciences
Computer Science College Tchng.
Data Processing/Computer Science Teaching
Deficit Education Teaching
Electrical Engineering
Engineering Mechanics
Environmental Engineering (MS, PhD)
Family Clinical Nurse Specialist
Food Industry Management
Forestry
Food: Technology & Management
General Science Teaching
Gerontological Clinical Nurse Specialist
Hospitality Business Management
Hospitality Business College Teaching
Marketing
Materials and Logistics Mgt.—Logistics
Materials and Logistics Mgt.—Operations
Materials and Logistics Mgt.—Purchasing
Mechanical Engineering
Medical Technology
Merchandising Management
Nursing (BS)
Nursing College Teaching
Packaging
Pharmacy
Physical Science Teaching
Reading Instruction College Teaching
Reading Instruction Teaching (MA)
School Administration (Supt., principal, etc.)
School Coaching (Basketball, football, swimming, wrestling, etc.)

School Counseling (MA & 3 yrs. exper.)
School Librarian (MLS)
School Speech Correctionist (MA)
Special Education College Teaching
Systems Science
Teaching of the Mentally Handicapped
Teaching of the Visually Handicapped

Near Balance/Supply Equals Demand
Administration in Higher Education (housing, admissions, placement, financial aid, etc.)
Agribusiness and Natural Resources Communications
Agribusiness and Natural Resources Teaching Agricultural Economics
Agricultural Technology
Animal Science
Art Teaching
Audiology & Speech Science (MS)
Biochemistry
Biophysics
Botany & Plant Pathology (PhD)
Building Construction Management
Business Education Teaching
Chemistry
Clinical Psychologist (PhD)
Counseling-Agency (MS)
Criminal Justice College Teaching
Crop Science
Dietetics
Driver Education Teaching
Economics
Engineering Arts
English Teaching
Finance
Foreign Language (BA, MA, PhD)/Russian
Forestry
French Teaching
General Business Administration
Horticulture
Human Ecology/College Teaching
Human Resource Management (MBA)
Instrumental Music/Band Teaching
Labor Relations and Human Resources (MLRHR)
Landscape Architecture
Mathematics
Microbiology & Pub. Health (MS, PhD)
Physics (BS, MS)
Physiology (MS, PhD)
Sanitary Engineering (MS)
Social Work (MSW)
Soil Sciences Spanish Teaching
Statistics
Teaching English as a Second Language (MS)
Teaching of the Physically Handicapped
Telecommunications—ITS option
Urban Planning
Veterinary Medicine (DVM)
Vocal Music Teaching
Zoology (MS, PhD)

Adequate Supply/Some Oversupply
Advertising
Agricultural Engineering
Agriculture/College Teaching
Arts & Letters College Teaching (MA, PhD)
Astronomy
Biological Science Botany & Plant Pathology (BS, MS)
Child Development
Child Development Teaching
Clothing & Textiles
Communication
Communication Arts College Teaching
Counseling, Student Personnel Services, College Teaching
Criminal Justice
Criminalistics
Distributive Education Teaching
Elementary Education/College Teaching
Elementary Education Teaching
English
Entomology
Family Ecology
Family Economics & Management Family Studies
Fisheries & Wildlife
Foods & Nutrition
Foreign Languages (BA, MA, PhD)
German & Romance Languages
Geography
Geological Sciences
Geophysics
German Teaching
Hisory (BA)
Hisory Teaching
Home Economics Teaching
Human Nutrition
Human Resource Management (BA)
Humanities
Instrumental Music Teaching
Interior Design
International Relations
James Madison (Political Economy, Social Relations, International Relations, and Political Theory & Constitutional Democracy)
Journalism Teaching
Microbiology & Public Health (BS)
Music Therapy
Natural Science College Teaching
Nutritional Sciences
Parks & Recreation Resources
Physical Science
Physics (PSD)
Physiology (BS)
Public Administration
Public Resources Management
Resource Development
Social Science
Social Studies Teaching
Teacher Education College Teaching
Therapeutic Recreation
Travel & Tourism Management
Zoology (BS)

Surplus/Substantial Oversupply
Anthropology
Art
Biology Teaching
Conservation & Natural Resources Teaching
Economics Teaching
Educational Psychology (MS)
Family Community Services
Family & Consumer Resources
Geography Teaching
Government Teaching
Health Education Teaching
Human Ecology (General)
Interdisciplinary Studies in Social Sciences (Community Relations, Environmental Policy, Health Studies, Human Resources and Society, International Studies, Law & Society [Prelaw], and Public Policy Studies)
Journalism
Latin Teaching
Linguistics
Philosophy
Physical Education Teaching
Political Science Teaching
Psychology (BS, MA)
Psychology College Teaching
Psychology Teaching
Recreation
Religion
Russian Teaching
Social Science College Teaching
Social Work (BS)
Sociology
Sociology College Teaching
Sociology Teaching
Speech/Communication Teaching
Telecommunications
Theater
Theater Teaching

Definitions:
High Demand/ Limited Supply: Appears to be more positions than college graduates.
Possible Shortage/ Good Demand: A few more positions than graduates.
Near Balance/Supply Equals Demand: Approximately as many positions as college graduates.
Adequate Supply/Some Over Supply: A few more college graduates than positions.
Surplus/Substantial Oversupply: Many more college graduates than positions.

References:

Sources for Further Information:
Visiting with individuals employed in a field of interest should yield additional information on geographical variations in demand and ideas about preparations needed to make an individual more marketable for an occupation.
Collegiate Employment Research Institute, Career Services and Placement, 113 Student Services Building, Michigan State University, East Lansing, Michigan 48824-1113 Telephone: (517)355-9510, Ext. 361; fax: (517) 353-2597; or email: Scheetz@pilot.msu.edu

Talent Alliance

Some of the nation’s biggest companies, including AT&T, DuPont and Johnson & Johnson, have formed the Talent Alliance, a sweeping collaboration on career management and job matching that is making some ambitious pledges to employees in member corporations, including increased employment security.

Of course, this isn’t job security in the traditional sense of a single secure job; it’s this new faux security that comes from having so many skills and accomplishments that even if you lose your job, you won’t be jobless for long.

Can the alliance deliver on that promise? The idea was hatched by human-resources executives at AT&T concerned about the company’s future supply of skilled personnel (a tad ironic, considering AT&T plans to cut 40,000 jobs over the next three years). Other members include GTE, Lucent Technologies, TRW, Unisys and UPS; 100 other companies have inquired about membership, and talks are under way with several.

The nonprofit alliance, expected to reach 300,000 to 400,000 employees is promising a most comprehensive career-management program, from testing to training to gaining access to a job pool. It will all revolve around the alliance’s recently unveiled Web site, where employees at every level and at every stage of their careers can take tests.
| Virginia 5 mins | I. Introductions  
A. Assumptions of the workshop.  
B. Poll participants on familiarity and use of the Web in advising and integration of academic and career advising.  
C. Discuss implications.  
   1. Need to adapt use of Web to students differences to develop critical thinking  
   2. Need to become familiar with career trends and how the Web can assist in the advising process.  
 | Virginia 55 mins | II. Career Trends:  
A. Introduction - Quiz  
   1. 25 break through changes in our lives  
   2. Top technological development for the next ten years  
   3. Work Trends  
   4. 26 Hot jobs  
   5. Job outlook 2005  
   6. Bachelor degrees and earning power  
   7. Career ladder or lattice?  
   8. Are students ready for work?  
   9. Reasons why college graduates fail as employees.  
10. Required workplace competencies  
11. Hierarchies of employment skills DOT  
12. New work rules |
<table>
<thead>
<tr>
<th>Melinda</th>
<th>III. Small groups: Career Information needs</th>
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<tbody>
<tr>
<td>25 mins.</td>
<td>What occupational/career information is essential for you to know?</td>
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<td>How do you provide this information?</td>
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<tr>
<td>George</td>
<td>IV. What is out there on the Web?</td>
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<td>15 mins.</td>
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<td>Break:</td>
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<tr>
<td>Melinda</td>
<td>V. Role of Information/Role of the Advisor</td>
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<tr>
<td>5 mins</td>
<td>A. Introduction.</td>
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<td>1. What is the role of the advisor?</td>
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<td>2. Role of theory: to help evaluate the use of technology and information and how it should be used in the advising process.</td>
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<tr>
<td>15 mins.</td>
<td>B. Intro to case study.</td>
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<td>Break into groups: Have groups analyze case study, offer advising suggestions, identify theoretical assumptions.</td>
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<tr>
<td>10 mins.</td>
<td>1. Theory 1. Holland Trait theory and Web sites: Whole group discussion</td>
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<td>a. Analyze case study for:</td>
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<td>1. Determining what are the key advising issues involved in the student’s situation and how this theory might help: use work sheet</td>
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<tr>
<td>George</td>
<td>2. Theory 2. Career Development Salisbury State (Stages of preparation for undergraduates) and Web sites.</td>
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<tr>
<td>10 mins.</td>
<td>3. Theory Three Cognitive Development Perry</td>
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<td>Process structured vs. Non-structured</td>
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<td>Virginia</td>
<td>VI. Action Steps</td>
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<td>10 mins.</td>
<td>1. What steps do their institutions need to take to better integrate academic and career advising using the Web?</td>
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<td>2. What steps do they need to take upon returning to their campus?</td>
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<td>3. Evaluation of the workshop.</td>
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