

An Application of the Theory of Expertise: Teaching Broad and Skill Knowledge Areas to Prepare Journalists for Change

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How to educate journalism students for the online world is controversial. For journalism students to become well-rounded journalists, lifelong learners, and experts, journalism education should weave skills with theoretical training, based on Hatano's theory of expertise. To determine to what extent employers are seeking such applicants, this study examined online media job ads. Results show employers want people with a broad and specific background.

Online news media critics and journalists have criticized and challenged whether journalism programs can adequately prepare and secure future graduates a job.¹ U.S. environmental reporters have argued students should seek an outside education rather than a major in journalism because it better prepares them for future employment.² Qualitative survey research conducted with magazine editors supports the unfavorable perceptions of a journalism degree compared to the value of a broader degree.³ A broader or a more liberal arts education is an education that emphasizes understanding the social, economic, and cultural issues in society. The

move online and the death of a few traditional news media businesses is an indicator that a reevaluation of journalism education is needed.⁴

One approach programs are taking to assist students in securing employment is by investing in online technologies including educators possessing those skills. The increasing abundance of new technologies presents challenges to journalism programs. Some challenges facing programs are whether they should invest more resources into teaching online skills classes or revamp existing courses. Many programs have tracks that already focus on the teaching of audio, visual, and print storytelling. One con-

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cern is that a greater investment in skills within journalism and mass communication departments may divert attention away from the importance of learning “theory,” a term usually used more broadly than referring to theory per se.

Skills education includes training in knowledge areas such as computer applications, writing, and interviewing in the field of journalism. Skills knowledge refers to “the practical knowledge needed for entry-level jobs.”⁵ The focus on skills has been argued to dehumanize the profession by encouraging students to repress their individuality, enthusiasm, and creativity.⁶ Another criticism is that it trains people to “do,” rather than “think.”⁷ McCombs argued journalism programs should train students to do more than get a job; rather programs should prepare students to evolve with the field of journalism. McCombs further argued that “journalism’s low status in many universities results from the emphasis on job skills, excessive borrowing from a profession with little original contribution to that profession.”⁸ Shoemaker argued curricula designed to train students “to fill particular job slots in the working world is not unlike the process of training workers to fill slots on an assembly line. The task is assumed to be routinized and repetitive; for example, a worker trained as a reporter on one newspaper ‘assembly line’ could easily move to another organization with minimal retraining.”⁹ Despite this concern, research shows news organization leaders want journalists to receive more training in skills; however, this does not mean that employers want people trained in skills areas only.¹⁰ Currently, the task of providing a specialized and theoretical education is

difficult within journalism and mass communication departments for the one-quarter of U.S. programs that are accredited. Students graduating from these programs are required to take approximately two-thirds of all their courses from outside the journalism department.¹¹ However, a liberal arts education does not necessarily equate to depth. Students can pick courses from several different departments outside of the program, leaving them with little aptitude in specialized areas at many institutions. And with such class restrictions, journalism programs are limited in their ability to teach students both contextual and skills areas.

Despite class restrictions in accredited U.S. programs, Hatano’s theory of expertise will demonstrate that an attempt at balance should be struck related to the teaching of skills, contextual courses, and theoretical areas to help ensure students a successful future. Researchers tend to separate theoretical and skills education as a subject to study.¹² To survive the changes of journalism, students should possess both skills and contextual knowledge to understand the extent their behavior influences society and to evolve with society as well. To identify whether employers actually seek well-rounded graduates, this research quantitatively content analyzed online news media job ads to determine what capabilities and traits traditional and non-traditional employers prefer of their online news media hires.

Literature Review

This research sought to understand the ideal outcome of a journalism education by looking to three streams of literature: (1) skills preferences of com-

munication employers, (2) literature on liberal arts education, and (3) cognitive psychology literature with an emphasis on the construct expertise. The integration of the three areas can be used as a guide for programs and educators.

Technical and Nontechnical Skills. Every area of expertise, including journalism, involves the need to learn skills.¹³ The 2008 State of the News Media report indicated U.S. news media organizations planned to invest more in multimedia and newer media.¹⁴ Authors of 2008's *Annual Survey of Journalism & Mass Communication Graduates* report found 50.6% of graduates wrote and edited for the Web following graduation.¹⁵ Recent research shows television and newspaper managers value a broad liberal arts background;¹⁶ however, skills play a key role in hiring decisions. Lowrey and Becker found employers use specific skills to reduce uncertainty in the screening process. New hires with online skills may help employers more confidently move forward as they publish in an unpredictable environment.¹⁷

Research on the skills desired of journalism graduates is predominately based on the ranked preferences of employers.¹⁸ Most journalism job skills studies show writing, grammar, and news judgment as the skills preferred by traditional news media employers, while technical skills are viewed as less important.¹⁹ Technological skills are still important to assess because this knowledge can help educators teaching online skills classes adjust their syllabi, and it can also help program leaders more efficiently focus their investments in technology.

Research in the mid-1990s showed that educators and students believe

higher education training in technology is inadequate,²⁰ although recently the majority of U.S. programs offered at least one Web-based journalism skill class.²¹ A 2003 survey of U.S. journalism and mass communication educators found 87% of faculty experience stress from having to keep up-to-date with technology.²² Thus, it is important to more precisely begin to identify the technical skills used by information providers.

Research about online skills varies as to whether training should focus on content or Web site creation. A recent survey of U.S. online journalists found shooting photos, using imaging and graphics software, and understanding multimedia delivery ranked highest, while understanding javascript and Web-editing software ranked the lowest.²³ A recent survey of journalism and mass communication graduates found they are most likely to research materials for the Web (78.5%), use the Web for promotional purposes (34.7%), and work with blogging technology (24.4%).²⁴ Magee found U.S. online news producers ranked content management system (72.7%), HTML (71.7%), and Photoshop (55.6%) training as the most important, while Flash (14.6%), database design (14.6%), and Javascript (13.6%) were lower.²⁵ The National Council for the Training of Journalists found U.K. radio, television, and magazine employers preferred video skills, multiplatform writing, and writing for search engine optimization.²⁶ Content Management System training is usually preferred by larger organizations because they want employees to work within an established system.²⁷ Huang et al. conducted a survey of U.S. newspaper editors and other news professionals. Editors

ranked writing, multimedia, and critical thinking skills as their top three preferences, while other news professionals ranked writing, multimedia, and new technology skills as their top three. On-camera and second language skills ranked last.²⁸

Liberal Arts. The core mission of a liberal arts education consists of the development of the “whole person,” which includes the teaching of both skills and broader knowledge areas. Wick and Phillips created a liberal arts education scorecard to measure the extent to which higher educational programs were meeting their students’ needs based on liberal arts education principles. Their scorecard, based on Bloom’s taxonomy of understanding, stated that a liberal arts education should consist of affective, cognitive, and skill domains. The affective domain focuses on creating students who are civically engaged. The underlying goal is to encourage students to seek a greater awareness of community issues including their obligations to their community for the sake of public betterment.²⁹ If journalists understand how and why communities are the way they are, they may better understand how to tailor information to encourage citizens to participate.³⁰ The cognitive domain encourages the learning of different cultures. The skills domain concentrates on building written, oral, and teamwork skills. The ultimate goal of the three-pronged approach was designed to create students who were problem solvers, creative thinkers, and critical scholars.³¹ This three-pronged approach could be used as a guide for journalism programs.

The cultivation of intellectual and critical thinkers, while preparing students for their civic responsibilities, is

an important, yet controversial, task. The criticism against a liberal arts education is that it is “too theoretical” and not relevant to the “real world.”³² The goal of a liberal arts education is to free students from their prejudices, develop critical thinking skills, and encourage civic participation. Goldenberg argued “with skills, they may be well trained, but to be well educated, they need to know ‘how’ to continue learning long after they leave campus.”³³ This is especially important because people in the United States change jobs frequently. Americans who were surveyed about the number of jobs they held when they were 18-to-42 years of age showed they held an average of almost eleven jobs, according 2008 figures from the Bureau of Labor Statistics.³⁴ Based on these figures, students will likely have to continue adapting to new positions because this trend may continue.

A 2001 survey of journalism and mass communication educators found the majority (91.3%) agreed that a balance should exist between contextual courses and skills courses.³⁵ Iorio and Williamson examined the presence of history, theory, and philosophy courses within a journalism curriculum. Their 1995 research showed history is the most common course found in journalism programs; however, their research found that these three classes rarely stood by themselves. Instead, respondents said they “ran through” many of their courses, or the historical, philosophical, and theoretical elements were found in introductory courses such as a Mass Communication and Society course.³⁶

Literature addressing the liberal arts philosophy argues an education should promote many aspects includ-

ing problem-solving, critical thinking, intellectual curiosity, ability to receive and communicate facts and ideas effectively, deep sense of citizenship, self-discipline, and respect for other people and ideas.³⁷ This research focused on the desired outcomes of a liberal arts degree, and it measured whether online news media employers sought new hires with these areas of expertise. Liberal arts or adaptive expertise areas identified were a desire to learn, community engagement, independence, commitment to addressing social problems, leadership, creativity, critical thinking, problem solving, openness to diversity, specialized knowledge in an area outside of communication and journalism, and the ability to speak multiple languages. In recent survey research of new media faculty, Huang found educators were more likely to perceive technical skills as more important than contextual knowledge. Educators perceived that hands-on skills (60%) were the most important factor for student graduates to possess, followed by creativity (34%), problem-solving skills (28%), project experience (27%), being flexible (23%), teamwork (18%), and oral and communication skills (18%).³⁸

Theory of Expertise. Research from the area of cognitive psychology on the construct “expertise” can shed some light on the direction journalism programs should consider taking to prepare students for lifelong careers. Most expert performance literature evaluates individual-level problem-solving skills to determine how individuals acquire expertise and what procedures lead to expert performance. An expert is “an individual with specialized knowledge of the domain.”³⁹

Overall, research shows novices tend to interpret tasks and problems not based on underlying principles, rather based on common sense and intuition.⁴⁰

Hatano argues there are two types of expertise: routine and adaptive. Skills acquisition reflects routine expertise, while adaptive expertise requires broader knowledge.⁴¹ Expertise literature shows that performance is dependent upon goals. Conceptual knowledge is organized and condensed to solve a goal. If a solution to a goal is commonly understood in a domain, routine experts will likely perform better. However, if the profession does not readily share in a solution to a problem, adaptive experts will likely perform better because these experts possess abstract knowledge that enables them to discover problems and identify creative solutions. Broader knowledge is more beneficial in social science fields such as history, politics, and economics because professionals are less likely to agree professionally on how to solve problems.⁴²

Routine expertise enables people to solve problems quickly on a daily basis. Routine expertise stems from the habitual experience of working on a job and understanding the customary ways of addressing problems. Routine experts perform their tasks quickly and accurately due to the repetitiveness of their job.⁴³ Research on traditional newsrooms shows that news workers rely heavily on routines to manage the time constraints and other pressures.⁴⁴ Routine experts tend to be confident leaders when business is stable; however, they do not adapt well when instability occurs because they are faced with a change in constraints. In

an organizational setting, routine experts are not encouraged to ask why because asking why can be detrimental to the efficiency of the operation, and dissent can often involve the risk of sanction by newsroom leaders.⁴⁵ Thus, these constraints influence the reflective potential of those working in the industry, and their ability to change including challenging their own ideologies.

Adaptive expertise enables people to solve novel problems because they have the conceptual foundation to work through problems. Adaptive experts go beyond the learning of skills by seeking to understand the meaning and implications of their tasks.⁴⁶ Adaptive experts are more likely to have the luxury of time to process information. The deadline constraints that employers put on journalists require them to be efficient. People who work toward goals, especially the goals set by leadership, tend to limit their view of the world. This is the difference between goal-based and knowledge-based problem solvers. The freedom from goals desired by leadership enables employees to explore problems more liberally.

Adaptive experts are more adept at solving problems in times of uncertainty. A comparative study analyzing consultants, restaurant managers, and undergraduate students' ability to solve novel problems found consultants were best suited to solving such problems because they had engaged in more deep, theory-based, and causal reasoning. The authors argued that "the expert understands the underlying principles rather than simply knowing a set of rules to routinely apply in standard circumstances."⁴⁷

Research Questions

This research focuses both on broader and skills education because both sets of knowledge areas are important to becoming a well-rounded journalist, a lifelong learner, and an expert. Hatano's expertise theory provides the foundation for the study.

RQ1: What adaptive expertise knowledge areas do online news media employers prefer?

RQ2: What types of routine technical expertise areas do online news media employers prefer?

RQ3: What types of routine nontechnical expertise areas do online news media employers prefer?

A gap in the job skills research is that research focuses primarily on the preferences of newspaper leaders.⁴⁸ Studies should also address the applicant preferences of other information providers. Program leaders may rely on these data to inform them on how they should adjust their curriculum. However, students will likely work for a variety of news media outlets that produce content, not just newspapers. Journalism industry leaders argue non-traditional information organizations can produce quality journalism.⁴⁹ *Traditional news media organizations* were defined as commercial news organizations that have historically focused on the daily delivery of information concerning a geographic (e.g., local, state, national, international) area in either a textual, audio, or visual

format offline. *Nontraditional online media providers* were online information providers who focused on the online delivery information for the benefit of the public excluding public relations providers, non-profit businesses, and schools. To determine to what extent industry leaders differed in their preferences of online media hires, this research compared the preferences of traditional media providers to nontraditional online providers.

RQ4: How is information provider type related to the expertise preferences of online news media journalism job applicants?

Method

The study employed a quantitative content analysis of a six-month period (January-June 2008). Content analysis is useful for large amounts of longitudinal, archived, and textual material that can be reduced into categories.⁵⁰ The unit of analysis for this investigation was the individual "online media" job ad from the JournalismJobs.com Web site ($N = 664$). The site claims it is the most-visited site for journalism jobs, receiving more than 2.5 million page views a month.⁵¹ A census of job ads was taken rather than a random sample, so findings do not require inferential statistics for generalization to a population.

Adaptive Expertise. Based on the liberal arts literature, broad knowledge areas included the desire to learn, community engagement, independence, the desire to address social problems, leadership, creativity, critical thinking, openness to diversity, problem solving, knowledge of multiple languages, and

specialized knowledge areas outside of communication and journalism fields. Job ads were coded for the presence or absence of these areas.

Nontechnical Routine Expertise.

This research measured the presence of nontechnical skills in online news media job ads on JournalismJobs.com based on the job skills literature. The skills recorded were summary content writing (e.g., writing headlines and captions), multiplatform writing (e.g., writing for both offline and online), multimedia writing (e.g., writing for online-broadcast), AP style knowledge, the ability to work under deadline pressure, the ability to edit copy, news judgment, the ability to research, teamwork, interviewing skills, client relations, and communication skills.

Technical Routine Expertise.

Coders recorded the presence of the following technical skills: computer programming (e.g., PHP, Ruby on Rails, Python, Javascript, Ajax, Django), Web content management system (e.g., Joomla, Drupal, WordPress), (X)HTML/CSS/XML, database management (e.g., SQL/C/ C++/DSS), Cold-Fusion, Web-editing software (e.g., Dreamweaver, Frontpage), graphics program (e.g., Quark/In-Design), Web design, animation (Flash/Action Script), word processor (e.g., Microsoft Word), Microsoft Excel, search engine optimization, tracking software (e.g., Omniture), image-editing software (e.g., Adobe Photoshop), slideshow editing applications (e.g., Soundslides), podcasting, audio editing (e.g., Cool Edit Pro, Garageband), video editing (Final Cut Pro, AVID), video shooting, photo shooting, blogging, posting of online content, and the use of social media.

Table 1
BROADER PREFERENCES OF ONLINE MEDIA HIRES

Adaptive Expertise	Percentage N = 664
Outside Knowledge Area	38.4%
Creativity	32.5%
Independent Thought	27.2%
Leadership	19.0%
Critical Thinking Skills	12.3%
Problem-solving	10.1%
Ability to Learn	8.6%
Ability to Engage Community	6.8%
Multiple Languages	1.4%
Ability to Address Social Problems	.01%
Openness to Diverse Ideas	.01%

Coder Reliability. Two coders were familiarized with the coding protocol, and trained using job ads that were not included in the sample. Eight percent ($n=53$) of the population was selected randomly for intercoder reliability. Scott's *pi* computation was used to correct for chance agreement for nominal level variables. Nominal level variables were reliable at a .86 or greater Scott's *pi* level.

Findings

Coders examined 664 "online media" job ads on JournalismJobs.com. The majority of the information providers hiring wanted people to work in the southern (33.1%), north-eastern (30.4%), and western (18.7%) areas of the United States. Those hiring in the area of online news media sought mostly editors (37.0%), reporters (16.0%), writers (11.4%), and producers (11.1%) in their job ads. If

mentioned in the job ad, employers preferred entry-level (62.0%) new hires with a bachelor's degree (43.7%), and either one to three years (25.6%) or four to six years (22.6%) experience.

RQ1 addressed the extent to which online news media employers mentioned the preference for their news hires to possess adaptive expertise. Of the 664 jobs ads, 81.8% featured information stating the preference for new employees to have broad knowledge. A notable portion of employers advertised the need for new media employees to have knowledge of an area outside the field of journalism and communication (38.4%), to be creative (32.5%), or to be independent (27.2%), while few expressed interest for their new hires to be open to diversity (.01%), to address social problems (.01%), or to know more than one language (1.4%) (see Table 1).

RQ2 addressed the extent to which online news media employers men-

Table 2
TECHNICAL SKILL PREFERENCES OF ONLINE MEDIA HIRE

Routine Expertise	Percentage
	<i>N</i> = 664
HTML/CSS	27.4%
Posting of Content	20.6%
Image Editing	20.2%
Blogging	17.8%
Video Editing	16.3%
Content Management System	12.8%
Animation	11.9%
Social Media	11.0%
Audio Editing	10.5%
Word Processor	10.1%
Excel	9.8%
Search Engine Optimization	6.2%
Tracking Page Views	5.7%
Computer Programming	5.7%
Podcasting	4.5%
Video Shooting	4.4%
Web-editing Software	3.2%
Graphics Program	3.2%
Photo Shooting	2.9%
Database Management	2.1%
Web Design	2.0%
Slideshow Editing	2.0%
ColdFusion	0.1%

tioned the preference for news hires to possess routine technical expertise. Of the 664 jobs ads, 64.8% contained information expressing the need for their future employees to possess routine technical expertise. The routine technical skills most sought by employers were HTML/CSS (27.4%), posting of content (20.6%), and image editing (20.2%), while knowledge of

ColdFusion (0.1%), slideshow editing (2.0%), and designing Web sites (2.0%) were the least mentioned skills (see Table 2).

RQ3 addressed the extent to which online news media employers mentioned the preference for their news hires to possess routine nontechnical expertise. Of the 664 jobs ads, 91.0% featured information stating the prefer-

Table 3
NONTECHNICAL SKILL PREFERENCES OF ONLINE MEDIA HIRES

Routine Nontechnical Expertise	Percentage
	N = 664
Solid Writing Skills	62.7%
Working under a Deadline	52.1%
Editing Copy	40.8%
Teamwork Skills	37.8%
Communication Skills	37.0%
AP Style and Grammar	18.7%
Researching	16.3%
News Judgment	15.8%
Multiplatform Writing	12.7%
Writing Summary Content	12.0%
Client Relations	8.4%
Multimedia Writing	6.2%
Interviewing Skills	4.8%

ence for routine nontechnical expertise. The skills most preferred by online media employers were solid writing skills (62.7%), the ability to work under deadline (52.1%), and knowledge of how to edit copy (40.8%). The abilities mentioned less often were interviewing skills (4.8%), multimedia writing (6.2%), and client relations (8.4%) (see Table 3).

Nontraditional online information providers (31.0%), newspapers (14.1%), public relations employers (13.3%), magazines (8.3%), television (7.0%), and non-profit businesses (3.9%) posted the most ads on the site. RQ4 sought to know how or if nontraditional online news employers and traditional news media employers differed in their preferences of online news media employees. The results show nontraditional online news employers were similar in their prefer-

ence of nontechnical skills; however, they differed in their preference of technical and liberal arts skills. Nontraditional online news employers preferred people with adaptive knowledge, while traditional news media companies were more likely to request people with technical skills (see Table 4).

Discussion

The results show online news media employers want people with broad backgrounds, not just people trained in one specific area. The majority of employers wanted someone with nontechnical routine (91.0%), adaptive (81.8%), and technical routine (64.8%) expertise. Training in all three areas allows for more flexibility and room for growth within the field.

These results support the desire to hire people with adaptive expertise.

Table 4
EXPERTISE PREFERENCES OF ONLINE NONTRADITIONAL
AND TRADITIONAL NEWS MEDIA EMPLOYERS

Expertise Areas	Online Nontraditional <i>N</i> = 206	Traditional News Media <i>N</i> = 144
Technical Routine Expertise	59.2%	86.1%
Nontechnical Routine Expertise	88.8%	87.5%
Adaptive Expertise	83.0%	73.6%

Specifically, almost 39% of employers wanted someone with knowledge in another area outside of journalism or communication. In the past, the fear was that specialization in a subject area would mean that journalists would bring their biases to a story through their connection with the subject area. However, journalists may rely on stereotypes to efficiently to tell a story if they do not have a deep level of knowledge in a subject area. Specialization can help journalists ask knowledgeable questions to interpret content for a wider audience more accurately. Some of the outside areas mentioned in the job ads were business, government, technology, and music. Survey research of radio and television news directors from 1981 showed a strong preference for hires with knowledge in English (whether composition and/or literature was not specified), government, political science, and economics.⁵²

A notable portion of new media faculty (34%) in the United States believes students should be encouraged to be creative, and this research supports their belief.⁵³ Almost a third of the ads mentioned the need for a creative person. Past research on traditional news media products has shown

that as time has progressed, news organization employees have increasingly relied on routines to accomplish daily tasks in an efficient manner.⁵⁴ However, creativity takes time, and it is a social process that should be encouraged by information providers.⁵⁵ Educators should consider exercises that allow students to express their creativity and encourage students to test the boundaries of the traditional definition and structure of news.

Few employers requested the need for diversity, the ability to address social problems, and knowledge of more than one language. Previous survey research of U.S. newspaper editors and news professionals showed few wanted someone with second language skills.⁵⁶

There were a notable number of requests for employees to have training in HTML/CSS. These results are supported by past survey research.⁵⁷ HTML and photo editing skills are sometimes necessary to know how to edit and post content to a Web site. These results show HTML and image editing should be taught so students can obtain a basic online editor position. However, students must be careful when accepting these positions because some positions can be repeti-

tive and lack creativity. Students should only accept posting content positions if there is room for advancement.

Further data analysis shows the ads mentioned the need for people with expertise in content creation (43.5%), Web site creation (33.3%), and social media (23.8%) during the six-month period in 2008. Examples of content creation include shooting video, writing stories, or preparing slideshows, while site creation focuses more on the designing or the building of a site. This analysis shows the teaching of content or site creation can be useful for students. Social media would likely be more prevalent today because this data set is from 2008.

The focus is on the preferences of employers, which means these results should only act as a supplement for journalism programs. Journalism programs may want to consider training students to start their own online operations. Technical skill needs would likely differ for an entrepreneur than an employee. In an organizational setting, businesses work to increase efficiency, which may affect creativity and experimentation. However, it may be beneficial to understand the business side, search engine optimization, and all facets of building a site on their own.

Solid writing and editing skills are necessary because many organizations need someone who can skillfully write and edit content that will be accessible to a large online public. This finding aligns with past research that the ability to write well is an important asset.⁵⁸ After the data are grouped further, the job ads showed that the abilities to write (75%) and communicate (57.2%) were noted by online news media

employers. Also, a researcher predicted teamwork would be a critical element in the future,⁵⁹ and this research supports this prediction, showing that it can take people with many different backgrounds to publish content online.

There were some notable differences between nontraditional online-only news providers and traditional online news media. Based on observations, traditional online news media providers may have sought people with more technical expertise because JournalismJobs.com has separate categories based on medium (e.g., newspaper, television). Traditional online news media employers may have sought people with nontechnical skills in other medium categories, while nontraditional online-only providers may have advertised in the online news media category seeking people with journalism training because of their ability to write, rather than their knowledge of software applications.

One notable difference was that nontraditional online-only providers were more likely to want employees to have adaptive expertise than online traditional news media. One contributing factor could be because many online publications focus on a niche, and thus they are more likely to want someone with experience in other fields than journalism.

Conclusion

The sole focus on skills may not adequately prepare students to adapt well to change, based on the theory of expertise by Hatano. To get a job and to work in the industry, one needs skills knowledge and to evolve with the industry, one needs more theoretical knowledge. Lowrey and Becker caution

schools as they invest in online media technology because if the market stabilizes, employers will likely shift their focus from technological applications to content quality.⁶⁰ More than thirty years ago, James W. Carey urged journalism programs to reflect on their intellectual contributions to society. He said, "This means freeing ourselves from the tyranny of the present, of today's headlines, in order to take a longer view of things, in order to assert the scholar's tradition of concern with what is beyond our nose. That is, we must be concerned to teach, above all, the limitations of journalism as a practice."⁶¹

Recent research by Huang found new media programs in the United States were more likely to balance technological expertise areas with cognitive subjects through courses, rather than within courses.⁶² Programs may be considering the teaching of skills in short workshops and the teaching of theory in upper-level classes; however, it can be beneficial to combine both areas to help students address the problems facing online information organizations. Broader issues can be incorporated into skills classes; some broadcast journalism classes could include visual communication elements such as research on how people process information visually. Print or broadcast newswriting courses could include research on site usability/quality or instructors could encourage students to do more in-depth community projects. Ethics courses could focus more heavily on identifying creative solutions to problems, rather than on how the industry agrees to solve a problem. Mass communication theory courses could better explain why little investigative journalism is conducted

in newsrooms. Such a course could include information on how the socialization of journalists is related to the content made available to the public. Bennet and Iyengar argued we are moving into an era of minimal effects, and people will increasingly more likely rely on personal channels for their information.⁶³ Thus, the inclusion of interpersonal theory into mass communication courses would be useful as well.

Responsibility should not fall only to educators. Students must become more individually responsible in furthering their own education. Between 1971 and 2007 the number of jobs requiring high cognitive ability (such as reasoning, written expression, and decision making) grew from about one-quarter to more than one-third. And the percentage of workers whose jobs involved continually updating knowledge increased from 11.5% to 19.1%.⁶⁴ People in the knowledge business should be motivated to advance their knowledge to keep current. Information can be found online to help. The traditional sources of security and entitlement no longer exist, and thus, the career of journalism must be a lifelong journey of learning to evolve with the field.

There are limitations to this study's findings. The information provided in the job ads focused on expressed interest; however, employers may still want more knowledge areas from their new hires than noted in job ads. They may not know how to write the job ad for a technical position; or they may also write the job description for the "ideal" candidate. Schools must keep in mind that what is best for the employer in one moment in time may not be best for the stu-

dent's future. Data reflect a six-month period in 2008 and reflect content from one Web site. It is important for instructors to continually assess and adjust their syllabi to meet the needs of students. However, what elements should remain is the teaching of both specific and broad knowledge areas.

Endnotes

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