Information literacy competency standards for journalism students and professionals

Approved by the ACRL Board of Directors, October 2011

by the ACRL Education and Behavioral Sciences Section Communication Studies Committee

Beginning in 2006, the Communication Studies Committee (ACRL, Education and Behavioral Sciences Section) collaborated with a variety of organizations to develop information literacy competency standards for journalism undergraduate students, graduate students, and professionals. Committee members conducted a literature review, consulted with professional journalism organizations from 2007 to 2009, met with communication and journalism faculty in 2007, presented a draft at the 2007 National Communication Association conference, participated in ACRL discussions related to information literacy competency standards in the disciplines, and met with an ACRL Information Literacy consultant in 2008.

The Communication Studies Committee wishes to thank the following for their contributions to the standards: Kathy Campbell and Stephen Ponder, School of Journalism and Communication, University of Oregon; David Ortiz, Cascadia Community College Media and Communication Studies faculty; Lynne Flocke and Barbara Fought, S. I. Newhouse School of Public Communications, Syracuse University; Leigh Montgomery, Christian Science Monitor; Margot Williams, SNS Global LLC; LeeAnne Peck, University of Colorado; Joe Peyronnin, New York University; and Christy Stevens, ACRL Information Literacy Consultant of California State Polytechnic University-Pomona.

Introduction

The Information Literacy Competency Standards for Journalism Students and Professionals aim to adapt and apply the ACRL Information Literacy Competency Standards¹ to journalism. Information literacy is defined as the ability to recognize when information is needed and the ability to locate, evaluate, effectively use, and ethically apply the needed information. The information literacy competencies for journalism take into account related literacies, such as data, visual, news, and media. The intended audiences for the standards are journalism educators, professionals, post-secondary students, and the librarians who serve them.

Journalism students and professionals who cultivate information literacy competencies are better able to select, critically read, and ethically use information. Journalism is an interdisciplinary and rapidly changing field of study. Technological change and media convergence are redefining the scope of journalism education. This document uses the term *journalism* with the understanding that this includes the fields of mass media and new media journalism. Research and the ethical use of information in journalism pose specific challenges to students and professionals. Challenges include the need to scan enormous amounts of multidisciplinary information, use a diverse array of information resources, and submit stories to multiple

communication outlets (for example: newspapers, new media, radio, and television). Technologies such as blogging software and social networking resources make it easy for anyone to broadcast content. Journalists are concerned with the added challenge of leveraging these technologies while continuing to uphold the professional ethics and standards that distinguish them from citizen journalists. A strong information literacy foundation helps to build these ethics and ensures that journalists produce accurate and quality work in this rapid-paced news environment.

Journalism education research confirms the need for information literacy education. The research advocates that the development and application of information literacy competencies for journalism can enhance the quality of research and reporting, can provide journalism students and professionals more competitive job market skills, and improve the level of public discourse (Bornstein 2003). For this reason, many journalism education organizations already help promote standards of excellence in the field.² The main purposes of the standards are to:

• enable the evaluation of the information literacy and research skills of journalism students and professionals by providing a structured set of competencies to assess, and

• provide faculty and librarians involved in curriculum planning, instructional settings, and research consultations with common language to integrate information literacy competencies into journalism curricula.

The committee aims to provide the academic and professional journalism community with a useful set of competencies and examples for successful research in the discipline. The committee welcomes feedback and suggestions, and considers these standards a work in progress, as the discipline, curricula, and profession change over time. Prepared by: Missy Murphey, Kate E. Adams, Natasha Cooper, Amanda Hornby, Cathy Michael, Heidi Senior, Jessica Guthrie, Monique Threatt, Christina Gola, Kathy Dabbour, Linda Hofschire, Danielle Rowland, Joyce Garczynski, Jodie Borgerding, and Julie Ann Petr.

STANDARD ONE—PLAN Identifies needed resources, determines where to find resources, and estimates time and financial costs to access information

The student or professional:

1. Defines the information need based on the story idea or research question

OUTCOMES	EXAMPLES
a. Develops a story idea or research question	Possible sources of topics: Alerts, blogs, briefs, interviews, news feeds, press releases, speech- es, and wires
b. Identifies who the audience for the story is	Story scope: Local/community, national, international Audiences: Academic, community, interest groups (politicians, lawyers, business profes- sionals)
c. Selects the appropriate writing style and voice for the media outlet selected	Writing styles: Op-ed, feature, human interest, review, event coverage, literary reportage Media outlets: Television, newspapers, com- munity blogs, Web publication, radio, multi- media presentation
d. Initiates research by reading and exploring background information in order to identify appropriate sources	Examples of background resources: Cur- rent newspaper and magazine articles, event histories (Facts.com, historical newspapers), biographical information, company histories, and scholarly encyclopedia entries

e. Focuses the story idea or research question based on information found	Addresses questions such as: What news has not yet been covered? What news event has happened? Has it happened before? Who are the stakeholders? What does my audience need to know? How soon do they need to know it? What aspect of this story would my reader care about?
f. Brainstorms related topics and concepts for the key subject areas involved	Example: A story on global warming involves science, government policy, business interests, and local, national, international communities

The student or professional:

2. Identifies a variety of information sources to meet the information need

OUTCOMES	EXAMPLES
a. Identifies what type of information source is needed to meet the information need	Addresses questions such as: Will I need to interview sources? Do I need to read personal blog coverage of a topic/issue? Do I need to consult historical or archival materials? Do I need to read scholarly analysis of a topic/ issue?
b. Identifies core research resources required to meet the information need	LexisNexis, Communication & Mass Media Complete, Ethnic News Watch, U.S. Census, government Web sites, social media networks (to identify contacts), etc.
c. Identifies appropriate investigative methods	Interviews, computer-assisted research, pri- mary source research, etc.
d. Identifies additional types of resources to include multiple perspectives	Enhances coverage of research question through a variety of resources. Examples: Advocacy group publications, scholarly experts, data sets, government documents, industry reports, opinion polls, television and radio transcripts, think tank reports, etc.
e. Evaluates the scope and content of the chosen resources	Addresses questions such as: Who is the producer of the content? Does the database contain scholarly or news articles, images, audiovisual, etc.? Do I need to col- lect data? What are the pros and cons of the selected resources?
f. Plans to conduct original research	Design surveys, collect and analyze data, conduct interviews, etc.

The student or professional:

3. Considers financial costs and time required to obtain information

OUTCOMES	EXAMPLES
a. Explores free or lower cost resources	Uses public or academic libraries or interli- brary loan rather than purchasing a book, uses government records rather than subscription databases, files a Freedom of Information Act (FOIA) request, uses open access journals, etc.

when research or field work will be com- pleted in accordance with deadlines research plan	earch or story outline, defines long-term deadlines, creates a lan etc
---	--

STANDARD TWO-FIND

Begins research using search strategies that are effective and efficient

The student or professional:

1. Constructs and implements effectively designed research strategies

OUTCOMES	EXAMPLES
a. Considers broader, narrower, and related terms and language used by those in the discipline	Global warming: Broader term=Environment, Related term=Climate change, Narrower terms=Climate change AND Developing countries
b. Develops a research strategy using Boolean operators, truncators, proximity operators, etc.	("Global warming" or "Climate change") and (Garden* or Plant* or Farm*)
c. Expands research using database-controlled vocabularies specific to the discipline	Uses selected database's subject headings (sometimes called the thesaurus, topic, or descriptor) and Library of Congress subject headings to clarify or narrow research results
d. Applies search strategies to various research resources, adjusting for different user inter-faces	Runs a search in LexisNexis and then adjusts the search strategy for other appropriate databases

The student or professional:

2. Retrieves information online or in person using a variety of methods

OUTCOMES	EXAMPLES
a. Retrieves information needed through col- lections, services, and individuals	Examples: Government documents, public records, court records, interlibrary loan/docu- ment delivery, professional associations, com- munity resources, experts, and practitioners
b. Uses research methods to conduct original research	Conducts research through surveys, inter- views, archival research, and other forms of inquiry to retrieve primary information

The student or professional:

3. Refines investigative methods and search strategies

OUTCOMES	EXAMPLES
a. Identifies gaps in the information retrieved	Questions to address: Would polls or statistics enhance my research? Are there other experts or angles I might consider? Would databases or resources in another subject area provide an additional perspective?
b. Refines and repeats the search using the revised strategy as necessary	Questions to address: Would other search terms be more effective? Where else can I ap- ply my search strategy?

4. Uses records management and resource citation skills

OUTCOMES	EXAMPLES
a. Creates a system for organizing the informa- tion	Electronic files, reference management tools (RefWorks, Zotero, EndNote), Google docu- ments, Delicious, etc.
b. Records all pertinent citation information for future reference	Maintains a reporter's notebook, creates a document, or creates a voice-recording with backup notes

STANDARD THREE—EVALUATE FOR ACCURACY AND FAIRNESS

Appraises information gathered for accuracy, balance, and relevance *The student or professional:*

1. Summarizes and synthesizes the main ideas of the information gathered

OUTCOMES	EXAMPLES
a. Examines source material and identifies main ideas and facts	Reads and summarizes newspaper articles, interview notes, television footage, etc.
b. Restates relevant source material in his or her own words in the language appropriate for the audience	Reads a study in the <i>Journal of the American</i> <i>Medical Association</i> and is able to summarize it for a general audience
c. Identifies verbatim material for appropri- ate quotations and accurately quotes sources, respecting context.	Reviews audio-recording of interview for rel- evant quotes and verifies quotes with sources

The student or professional:

2. Assesses the credibility of the information gathered

OUTCOMES	EXAMPLES
a. Examines and compares information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness, and bias	Checks public records to verify a statement made by an interviewee, reviews information sources to ensure balance and representation of different viewpoints, cross-checks facts, etc.
b. Identifies sources with alternate viewpoints to provide context and balance	Searches Ethnic News Watch to find articles in Jewish-American newspapers, in addition to mainstream news, when covering a story on a Jewish community
c. Decides whether to incorporate or reject viewpoints encountered, always with the goal of fair and balanced reporting	Student/professional covering a labor union strike includes statements issued by both the union leaders and the company executives
d. Analyzes the structure and logic of support- ing arguments and methods used	When conducting media analysis, uses sound methodology, evaluates, and cross-checks the methodology used in other research, such as public opinion polls
e. Recognizes cultural, physical, or other con- text within which the information was created and its impact on interpreting the information	When covering an event situated in the Middle East, student/professional consults international and U.S. news sources; works with community members when interviewing specific community groups

3. Synthesizes main ideas to generate new knowledge or story ideas

OUTCOMES	EXAMPLES
a. Recognizes interrelationships among	Effectively synthesizes scholarly sources, origi-
concepts and combines them into potentially	nal media analysis, and primary sources to
useful original statements with supporting	examine media coverage of a event or person,
evidence	such as the 1999 WTO protests in Seattle
b. Extends initial synthesis, when possible, to	Student/professional sees a news article about
a higher level of abstraction to construct new	city budget cuts. She decides to explore rela-
story idea/angle that may require additional	tionship between the recent budget cuts and
information	the increase in the vermin population

The student or professional:

4. Compares new knowledge with prior knowledge to determine the value added, contradictions, or other unique characteristics of the information

OUTCOMES	EXAMPLES
a. Evaluates whether the new knowledge has an impact on the individual's value system and takes steps to reconcile differences	Investigates differing viewpoints encountered in information sources, following strategies outlined elsewhere in this document
b. Draws conclusions based upon information gathered	Uses information gathered to construct a lede or nut graf
c. Tests theories with discipline-appropriate techniques	Examples of theory-testing techniques: simula- tors, experiments
d. Decides whether to incorporate or reject different viewpoints encountered	Questions to address: Does the information presented support my argument or add to my story? Which viewpoint(s) fairly represent a situation?

The student or professional:

5. Validates knowledge of and interpretation of the information through dialogue with others

OUTCOMES	EXAMPLES
a. Participates in critical discussions, either in person or online	Monitors blogs on a topic or comments in online forums
b. Seeks expert opinion through a variety of mechanisms	Interviews an expert, e-mails a professor, calls a professional association, or consults with a reference librarian

The student or professional:

6. Decides whether the initial question or story idea should be revised

OUTCOMES	EXAMPLES
a. Generates new ideas or revises story angles based on gaps in information sources	After reviewing stories on gentrification in Chicago neighborhoods, the journalist realizes there is a glut of information on the topic but that very little has been written on the impact of gentrification on homeless shelters. He or she re-focuses the story

STANDARD FOUR—DRAFT AND CREATE

Writes the story by integrating information gathered

The student or professional:

1. Applies information gathered to the planning and creation of a story or research product

OUTCOMES	EXAMPLES
a. Organizes the content in a manner that supports the purpose and format of the story	Organizes and writes story according to guide- lines associated with a style—news story, feature, op-ed, multi-media, blog, or academic publication
b. Articulates own knowledge and any biases or affiliations that may influence the story	Discloses potential conflicts of interest to editor or in story piece (if appropriate or permissible)
c. Integrates new and prior information, in- cluding quotations and paraphrases, in a man- ner that supports the purposes of the story or research question	Uses quotes and analysis from scholarly journal articles, news articles, interviews, and other sources to support research claim
d. Effectively incorporates digital images, quotes, and data, as appropriate; ensures that graphics, etc. do not distort the tone or mean- ing of the story	Incorporates multimedia piece with images of homeless with article about the closing of a local homeless shelter

The student or professional:

2. Revises the development process for the story or research product

OUTCOMES	EXAMPLES
a. Maintains a journal or log of activities related to the information-seeking, evaluating, and communicating process	Maintains a reporter's handbook or uses Web tool such as Zotero to keep track of informa- tion sources and findings
b. Reflects on progress and identifies alterna- tive strategies, as needed	Periodically assesses information gathered, as well as successes and failures. Identifies alter- native ways to present information

The student or professional:

3. Effectively presents the story or research project to the intended audience

OUTCOMES	EXAMPLES
a. Analyzes the presentation of the story, project or performance within the framework of journalism	Organizes and writes story according to guidelines associated with the style of the publication (e.g., <i>New York Times</i> guidelines) or media outlet (e.g., blog)
b. Incorporates principles of graphic design and visual communication when appropriate	Critically evaluates layout of the story or research product and effectively incorporates photographs, sidebars and graphics, or videos, as appropriate
c. Communicates clearly and with a style that is appropriate for the story, performance, or audience	Questions to address: What information should I include in my story in order to give my audience fair and objective reporting? Is my writing or presentation style appropriate for an academic audience or general audi- ence? Does my story need to include a local perspective?

STANDARD FIVE—ETHICAL AND LEGAL STANDARDS

Applies professional standards throughout the research process

The student or professional:

1. Recognizes the ethical, legal, and socio-economic issues surrounding information and technology

OUTCOMES	EXAMPLES
a. Recognizes the role of journalists in the ethical use and publication of information	Abides by journalism ethics guidelines, as outlined by professional associations and organizations, such as Society of Professional Journalists and Poynter Institute. Seeks the objective truth, minimizes harm, acts inde- pendently, interviews a variety of sources, fact-checks, is publicly accountable
b. Recognizes issues related to privacy and security in both the print and electronic environments	Examines privacy policies for different types of data or information accessed
c. Recognizes issues related to censorship and freedom of speech	Reads and analyzes professional journal- ism organizations' censorship or freedom of speech guidelines and policies www.rcfp.org /handbook/
d. Recognizes the FOIA and the First Amend- ment and their impact on the journalism profession and society	Recognizes how to apply First Amendment and knows how to file a FOIA request
e. Recognizes and applies intellectual prop- erty, copyright, and Fair Use policies	Questions to address: Do I have enough information to properly cite my sources? Am I using copyrighted material ethically and in accordance with Fair Use?

The student or professional:

2. Follows laws, regulations, institutional policies, and etiquette around the ethical use of information

OUTCOMES	EXAMPLES
a. Participates in online discussions following accepted practices	Uses personal information from social net- working sites ethically, communicates in an appropriate, ethical, and transparent manner in online discussions or blog comments
b. Applies journalism's professional code of conduct and complies with institutional poli- cies on access to information resources	Story or research product complies with pro- fessional or institutional policy on accessing information
c. Legally obtains, stores, and disseminates text, data, images, or sounds	Adheres to fair use and/or obtains copyright clearances and permissions through Creative Commons or the author of the work
d. Retains transcripts and audio-recordings from interviews	Considers the efficacy of preserving interview recordings and/or notes for a substantial period after the interview is published should questions regarding the source and/or veracity of the quoted interviewee(s) arise

e. Examines the meaning of plagiarism and does not represent work attributable to others as his or her own	Questions to address: How much of the mate- rial presented is my own and how much is the work of another? Have I consulted my university's academic integrity policy? Have I consulted with a librarian, writing center tutor, or professor if I have questions about plagiarism?
f. Applies policies related to interviewing people and human subjects research; recog- nizes the ethical obligation to provide equal time and access to different interviewees as information sources	Example: "Shows compassion for those who may be affected adversely by news coverage. Uses special sensitivity when dealing with children and inexperienced sources or sub- jects." From Society of Professional Journalists Code of Ethics.
g. Applies professional standards for the ethi- cal use of information	Uses professional ethical standards from organizations including Society of Profes- sional Journalists, Association for Education in Journalism and Mass Communication, Poynter, National Press Photographers Association, Radio-Television News Directors Association, etc.

The student or professional:

3. Cites the work of others and seeks permission when required

OUTCOMES	EXAMPLES
a. Selects an appropriate documentation style and uses it consistently to cite all information sources	Uses the <i>Associated Press Stylebook</i> or the cita- tion style required by the publication, media outlet, or discipline
b. Posts permission-granted notices for copy- righted material	Provides photography credit and copyright information for images used in a published news story
c. Accurately attributes quotes to appropriate sources	Provides citation information or attribution for all interviews, quotes from journal articles, statistics, etc.

Notes

1. ACRL Information Literacy Competency Standards: www.ala. org/ala/mgrps/divs/acrl/standards /informationliteracycompetency.cfm. Support for information literacy also comes from national collegiate accrediting bodies, including Middle States Association of Colleges and Schools (Standard 11, pgs 34-35, Standard 12, p. 37); Northwest Commission on Colleges and Universities (Standards 2 & 5); North Central Association of Colleges and Schools (p. 11); New England Association of Schools and Colleges (Standard Four, 4.6, 4.18); Southern Association of Colleges and Schools Commission on Colleges (sec. 3.4.14, 3.6.2, 3.8.1, 3.8.2, & 3.8.3); Western Association of Schools and Colleges (Standard 2.2).

2. Organizations include Association for Education in Journalism and Mass Communication; Investigative Reporters and Editors, Inc.; the Knight Foundation; National Communication Association; Poynter Institute; National Association for Media Literacy Education; and Society of Professional Journalists.

Appendix A: Resource lists for journalism

The following resources include lists of core journals and subscription resources, as well as freely available online resources:

- Desai, S. (2011, January 24). New media. Retrieved May 14, 2011, from the Association of College & Research Libraries wiki: http:// wikis.ala.org/acrl/index.php/New_Media_ /_Cyberculture
- Garber, B. (2006, March/April). Journalism. College & Research Libraries News, 67(3), 151-154.
- Kanter, E. (2007, June 11). Communication studies. Retrieved May 14, 2011, from the Association of College & Research Libraries wiki: http://wikis.ala.org/acrl/index.php/I. _Communication_Studies_Specific
- Kanter, E. (2010, January 15). News sources. Retrieved May 14, 2011, from the Association of College & Research Libraries wiki: http://wikis.ala.org/acrl/index.php/ News_Sources
- Lebbin, V. (2007, June 8). Journalism. Retrieved May 14, 2011, from the Association of College & Research Libraries wiki: http://wikis.ala.org/acrl/index.php/ Journalism
- Maciejewski, F. E. (2006, December 13). Photojournalism. Retrieved May 14, 2011, from the Association of College & Research Libraries wiki: http://wikis.ala.org/acrl/index.php /Photojournalism
- Media ethics. (2009, July 8). Retrieved May 14, 2011, from the Association of College & Research Libraries wiki: http://wikis.ala.org /acrl/index.php/Media_Ethics

Appendix B: Selected bibliography

This is a selected bibliography of current articles and books providing scholarly and professional discussion and analysis of information literacy in the disciplines of communication and journalism; critical thinking and learning outcomes in these disciplines; and models for journalism education and research.

Recommended readings

- Bolding, J. (1996). Research skills instruction in undergraduate programs. *Journalism* & Mass Communication Educator, 51(1), 15-22.
- Bornstein, Jerry. (2003). Journalism students and information competencies. *Academic Exchange Quarterly*, 7(3), 204-209.
- Dates, J. L., Glasser, T. L., Stephens, M., & Stuart, A. G. (2006, February). Does journalism education matter? *Journalism Studies*, 7(1), 144-156.
- Dickson, T. (2000). *Mass media education in transition: Preparing for the 21st century.* Mahwah, NJ: Lawrence Erlbaum.
- Singh, A. B. (2005, July). A report on faculty perceptions of students' information literacy competencies in journalism and mass communications programs: The ACE-JMC survey. *College & Research Libraries*, 66(4), 294-311.

Works consulted and additional reading

- Brocato, M. K., Furr, P. F., Henderson, M. V., & Horton, S. G. (2005, September). Assessing student written communications skills: A gateway writing proficiency test for aspiring journalism majors. *College Student Journal*, 39(3), 510-517.
- Castaeda, L., Murphy, S., & Hether, H. J. (2005). Teaching print, broadcast, and online journalism concurrently: A case study assessing a convergence curriculum. *Journalism & Mass Communication Quarterly*, 60(1), 57-70.
- Deuze, M. (2006, February). Global journalism education. *Journalism Studies*, 7(1), 19-34.
- Dilevko, J. (1998). Bibliographic instruction and mass media news literacy: A theoretical background. *Library Quarterly*, 68(4), 431-474.
- Farhi, P. (2009). The Twitter explosion. *Ameri*can Journalism Review, 31(3), 26-31.
- Gazze, M. (2009). Getting the most out of Facebook. *Media*, 14(2), 24-27.

- George Washington University, & Cision. (2009). 2009 social media & online usage study. Retrieved from http:// us.cision.com/journalist_survey_2009 /GW-Cision_Media_Report.pdf
- Giovanna, M. F., Vercellesi, L., & Bruno, F. (2004, September). Information sources in biomedical science and medical journalism: Methodological approaches and assessment. *Pharmacological Research*, 50(3), 267-272.
- Gohen, J. (2005, Winter). Connecting the dots between journalism practice and communication scholarship. *Journalism & Mass Communication Educator*, 59(4), 335-338.
- Hermida, A. (2010). Twittering the news. *Journalism Practice*, 4(3), 297-308.
- Iorio, S. H. (Ed.). (2004). Qualitative research in journalism: Taking it to the streets. Mahwah, NJ: Lawrence Erlbaum.
- Kraeplin, C., & Criado, C. A. (2005, Spring). Building a case for convergence journalism curriculum. *Journalism & Mass Communication Educator*, 60(1), 47-56.
- Lariscy, R., Avery, E., Sweetser, K., & Howes, P. (2009). An examination of the role of online social media in journalists' source mix. *Public Relations Review*, 35(3), 314-316.
- Lepre, C., & Bleske, G. L. (2005, Summer). Little common ground for magazine editors and Professors surveyed on journalism curriculum. *Journalism & Mass Communication Educator*, 60(2), 190-200.
- Ludtke, M., Fiore, L., Wirth, P., & Smiley, D. (Eds.). (2002, Winter). Journalist's trade: Journalism education. *Neiman Reports*, 56(4), 100-110. Retrieved from http://www.nieman.harvard.edu /assets/pdf/Nieman%20Reports/backissues /02winter.pdf
- Lynch, L. (2010). We're going to crack the world open. *Journalism Practice*, 4(3), 309-318.
- McClure, J., & Middleberg, D. (2009). Key findings from the 2009 Middleberg/SNCR survey of media in the wired world. Retrieved from http://sncr.org/sites/default /files/Middleberg-_-SNCR-Study-Exec -Summary_0.pdf
- Mihailidis, P. (2006, January). Media literacy in journalism/mass communication education:

Can the United States learn from Sweden? Journalism & Mass Communication Educator, 60(4), 416-428.

- Murray, M. D., & Moore, R. L. (2003). Mass communication education. Ames, IA: Iowa State Press.
- Paskin, J. (2009). Man on the (digital) street. *Columbia Journalism Review*, 48(4), 10-11.
- Schafraad, P., Wester, F., & Scheepers, P. (2006). Using 'new' data sources for 'old' newspaper research: Developing guidelines for data collection. *Communications: The European Journal of Communication Research*, 31(4), 455-467.
- Tuggle, C. A., Carr, F., & Huffman, S. (2007). Broadcast news handbook: Writing, reporting, and producing in a converging media world (3rd ed.). Boston: McGraw-Hill.
- Wimmer, R. D., & Dominick, J. R. (2006). Mass media research: An introduction (8th ed.). Belmont, CA: Thomson/Wadsworth.
- Yarnall, L., Johnson, J.T., Rinne, L., & Ranney, M. (2008). How post-secondary journalism educators teach advanced CAR data analysis skills in the digital age. *Journalism and Mass Communication Educator*, 63(2), 146-164.

Professional journalism organizations: Codes and standards

- Association of Health Care Journalists. (2011). Statement of principles of the Association of Health Care Journalists. Retrieved from http://www.healthjournalism.org /secondarypage-details.php?id=56
- American Medical Writers Association. (2008, June). AMWA code of ethics. Retrieved from http://www.amwa.org/default.asp?Mode=D irectoryDisplay&id=114
- American Meteorological Society. (2011, May 10). AMS certification programs: Certified broadcast meteorologist program. Retrieved from http://www.ametsoc.org/ amscert/#cbm
- American Society of Newspaper Editors. (1996). ASNE statement of principles. Retrieved from http://www.asne.org/kiosk/archive/ principl.htm
- Associated Press Managing Editors. (1994). APME statement of ethical principles.

Retrieved from http://www.apme. com/?page=EthicsStatement

- Goldstein, N. (Ed.). (2009). Associated Press stylebook and briefing on media law. New York, NY: Associated Press.
- Investigative Reporters and Editors, Inc. (2009). The investigative reporter's handbook B. Houston, (Ed.). (5th ed.). Boston, MA: Bedford/St. Martin's.
- National Association for Media Literacy Education. (2011). Core principles of media literacy education. Retrieved from http:// www.namle.net/core-principles
- National Council for the Training of Journalists. (n.d.).
- National Council for the Training of Journalists. Retrieved from http://www.nctj.com/
- National Press Photographers' Association. Digital manipulation code of ethics. (1991). Retrieved from http://www. nppa.org/professional_development /business_practices/digitalethics.html
- National Press Photographers' Association. (1999). Ethics in the age of digital photography. Retrieved from http://www.nppa.org/professional_development/self-training_resources /eadp_report/
- National Press Photographers' Association. (2011). NPPA code of ethics. Retrieved from http://www. nppa.org/professional_development /business_practices/ethics.html
- Radio-Television News Directors Association. (2011). Ethics. Retrieved from http://www. rtdna.org/pages/best-practices/ethics.php
- Society of American Business Editors and Writers. (2011). SABEW's code of ethics. Retrieved from http:// sabew.org/about/codes-of-ethics /sabews-code-of-ethics/
- Society of Professional Journalists. (1996). SPJ code of ethics. Retrieved from http://www. spj.org/ethicscode.asp
- Strupp, J. (2009, August). Social realism. *Editor* & *Publisher*, 142(8), 24-28.

Professional journalism organizations consulted

Association for Education in Journalism and

Mass Communication. (2011). About. Retrieved from http://www.aejmc.org /about.

- Carnegie-Knight Initiative on the Future of Journalism Education. (n.d.). Revitalizing journalism education. Retrieved from http://newsinitiative.org/initiative/.
- Investigative Reporters and Editors. (2011). About IRE. Retrieved from http://www. ire.org/about/.
- John S. and James L. Knight Foundation. (2011). Our mission. Retrieved from http:// www.knightfoundation.org/about_knight/.
- Pew Research Center's Project for Excellence in Journalism. (2011). Overview. Retrieved from http://www.journalism.org/about_pej /about_us.
- Poynter. (2010). About us. Retrieved from http://about.poynter.org/.
- Society of Professional Journalists Journalism Education Committee. (2011). Tools for educators. Retrieved from http://www.spj. org/educators.asp. ≠2



www.statsqual.org