



# Institutionalizing Information Literacy

by Sharon A. Weiner

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**There is increasing recognition that information literacy is essential for individual and community empowerment, workforce readiness, and global competitiveness. However, there is a history of difficulty in integrating information literacy with the postsecondary educational process. This paper posits that a greater understanding of the organizational functioning of different types of colleges and universities can identify targeted strategies to address this issue. It applies Birnbaum's descriptions of four models of higher education organizations and strategies for effectiveness in each to the problem of institutionalizing information literacy. It proposes strategies for the institutionalization of information literacy based on the differences in these models.**

*Keywords:* Information literacy; Organization studies; Institutions of higher education; Institutionalization

## INTRODUCTION

There is a growing consensus that information literacy and its related competencies, such as media and digital literacy, critical thinking ability, ability to engage in lifelong learning, and problem-solving ability, are essential for individual and community empowerment, workforce readiness, and global competitiveness (American Management Association, 2010, p. 1; Lloyd, 2010, p. 29; Zhang et al., 2010, p. 721; Partnership for 21st Century Skills, 2009, p. 2; Achieve, 2008, p. 5; Crawford and Irving, 2008, p. 29; Perrault, 2007, p. 2; Peter D. Hart Research Associates, 2005, pp. 5–6; Goad, 2002, pp. 16–17). A standard definition of information literacy is the ability to:

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (ACRL, 1989)

Advocacy for information literacy is occurring not just on local or national levels, but through international collaborations. The Alexandria Proclamation, developed by an international group of leaders in 2005, stated that information literacy is:

- Essential to lifelong learning
- Empowers people in all walks of life
- Is a basic human right
- Promotes social inclusion of all nations (Garner, 2006, p. 3)

Several years after the Alexandria Proclamation, Boekhorst and Horton (2009, pp. 224–230) organized and presented eleven “Training-The-Trainers in Information Literacy” workshops, each in a different part of the world. Sponsored by UNESCO (United Nations Educational, Scientific, and Cultural Organization) and IFLA (International Federation of Library Associations and Institutions), more than 750 participants from 99 countries participated (Boekhorst and Horton, 2009, pp. 224–230; Horton and Keiser, 2008, pp. 10–27). UNESCO is developing international information literacy indicators because information (and media) literacy empowers people “to make their own decisions and to be more engaged in civic and economic life” (Moeller et al., 2011, p. 15). These examples of global collaborative efforts related to information literacy convey its continuing importance and growing urgency.

Ideally, the habits of mind necessary for information literacy should be developed progressively throughout the formal educational process (Weiner, 2010). Since information literacy is best learned in specific contexts, such as the academic disciplines, its inclusion in curricula is

Sharon A. Weiner,  
Purdue University Libraries, 504 West State Street, West Lafayette,  
IN 47907, USA  
Tel.: +1 765 496 3128; fax: +1 765 494 6744.  
<[sweiner@purdue.edu](mailto:sweiner@purdue.edu)>.

rarely comprehensive. The advocacy of individuals, rather than organizational assimilation, often determines the degree to which it is adopted. It is possible that the integration of information literacy may happen most effectively in different ways in different types of institutions. This paper focuses on four models of organizational functioning in institutions of higher education. The paper proposes possible strategies for success in these types of institutions to establish information literacy as an integral and lasting aspect.

### DIFFERENCES IN INSTITUTIONS OF HIGHER EDUCATION

Non-profit institutions of higher education in the U.S. have three commonalities: a faculty governance structure, an administrative hierarchy, and academic departments that are specialized and place a high value on their disciplines (Duryea, 2000, p. 13). But they differ in many ways, too, such as cost, the number of students attending, the demographic composition of the student body, the mechanism for governance, sources of financial support, primary institutional mission, geographic location (rural, urban, online), socialization, strategy, and leadership (Morphew, 2009, p. 243; Tierney, 2008, p. 30; Clark, 1990, p. 24). Kezar and Eckel (2004, p. 376–378) traced the development of academic governance structures from early 20th century when the sub-units of an institution were closely bound and dependent on each other, to the 1960's, when the size of campuses grew dramatically and became increasingly decentralized. Further study of the effects of this "bureaucratization" led to the concept of the organized anarchy in the 1980's. This model is a loosely coupled system with units that have much independence from each other (Wieck, 1982, p. 384). "Unpredictability, turbulence, resource scarcity, competitiveness, and periods of declining resources" characterized the 1990's (Cameron and Tschirhart, 1992, p. 100). In this environment, institutions tended to act in three ways: by "protecting the legitimacy of the core activities, goals, and customers of the institution" (domain defense strategies); by "enlarging the core activities, goals, and customers by initiating actions aggressively" (domain offense strategies); or by "adding related domains through activities such as innovation, diversification, or merger" (domain creativity strategies). Management strategies, such as participative decision-making, can mitigate the negative effects of the environment because good decision-making occurs through invoking varied information resources and perspective (Cameron and Tschirhart, 1992, p. 90, 100, 102).

Institutions still retain their core identities, though faced with similar external pressures. It may be necessary to use different strategies to institutionalize information literacy depending on the predominant characteristics of an organization.

There are four long-standing models of organizational functioning in colleges and universities: the collegial, bureaucratic, political, and organized anarchy (Birnbaum, 1988, xvii; Bess, 1988, p. 2). Bergquist described six similar organizational cultures: the collegial culture, the managerial culture, the developmental culture, the advocacy culture, the virtual culture, and the tangible culture (Bergquist and Pawlak, 2008, p. 1). All institutions of higher education have characteristics of each of these models, but one characteristic usually dominates (Green and Swanson, 2011, p. 378; Bergquist and Pawlak, 2008, p. 7; Kezar and Eckel, 2004, p. 382; Birnbaum, 1989, p. 239–240; Cameron and Tschirhart, 1992, p. 91, 102). Some advocate for synthesizing models to incorporate the strengths of each (Birnbaum, 1988, p. 175–230; Meyer, 2002, p. 517). Kezar and Eckel's review of the literature on governance in higher education cited studies that differentiated between types of institutions (Kezar and Eckel, 2004, p. 375–9).

### INSTITUTIONALIZING INFORMATION LITERACY

From the time that Zurkowski named the concept of information literacy (Zurkowski, 1974, p. 6), librarians have sought ways to integrate it into learning in institutions of higher education (VanderPol et al., 2008, p. 14; Breivik and Gee, 2006, p. 15–16; Rockman and Associates,

2004, pp. 238–239; Johnston and Webber, 2003, p. 338; Bruce, 2001, pp. 108–109; Breivik and Gee, 1989, pp. 28–29). There are several types of integration of a new concept or program possible in an organization: adoption, diffusion, and institutionalization. Casanovas (2010, p. 76) defined *adoption* as "a decision to use an innovation;" and *diffusion* as "the process by which an innovation is communicated through certain channels over time among the members of a social system." Meyer and Rowan suggested that institutionalization involved "the processes by which social processes, obligations, or actualities come to take on a rulelike status in social thought and action" (Meyer and Rowan, 1977, p. 341). Institutionalization is comprehensive and deep: it is "the ongoing process in which a set of activities, structures, and values become an integral and sustainable part of an organization...Institutionalization occurs when key stakeholders are committed to a change, develop procedures to support it, and establish the change as an essential part of the organizational structure" (Casanovas, 2010, p. 76–77).

Institutionalization is the most desirable state for information literacy, since it implies the highest degree of permanence and acceptance by the organization in comparison with adoption and diffusion. To determine whether information literacy is institutionalized in an institution, one could adapt and apply the indicators from a Kellogg Foundation report on institutionalizing service learning:

- Number of courses adapted to include it
- Creation of new centers, institutions, and clinics based on it
- Policies, practices, and mission statements changed to incorporate it
- Scholarships and living-learning communities created for undergraduates focused on it
- Integration into curricula
- Development of related activities
- Addition of funding through capital campaigns, government, and in-kind support (Shrader et al. (2008)

There are particular challenges in institutionalizing learning programs that are not tied to a specific discipline, such as online learning (Casanovas, 2010, pp. 75–76; Piña, 2008, pp. 428–9), service learning (Stater and Fotheringham, 2009, pp. 11, 13), and engagement (Sandmann and Weerts, 2008, p. 183). "Writing Across the Curriculum" (WAC) programs face similar challenges, for some of the same and some different reasons. WAC is similar to information literacy because:

- Its evaluation is complex
- Some institutions have reward systems that do not value teaching
- Attitudes of key faculty and staff may be entrenched or cynical
- Expectations of the program may be unrealistic
- Administrative support and funding may not be sufficient
- There is insufficient empirical evidence for its importance

Some differences between WAC and information literacy programs are that WAC is administered differently in every institution, the programs change rapidly, and the success of the program varies based on the individual program administrator (Townsend, 2008, p. 47–50).

Information literacy is a learning program that is relevant to all disciplines, but there is a history of difficulty in integrating it with the educational process (Stubbings and Franklin, 2006, p. 2; Rader, 2000, p. 294). The reasons for the difficulties associated with institutionalizing information literacy are varied and complex. There is a lack of understanding of what information literacy is and what its value is. Some consider it to be "extra" and cite reasons such as insufficient time and not enough people to devote to it. Some faculty believe that students learn the competencies in other courses. Students themselves over-estimate their information literacy abilities (Stubbings and Franklin, 2006, p. 6). Lastly, information literacy crosses the boundaries of all disciplines, so it is difficult to determine who is responsible for it. Some believe that colleges should offer credit-bearing courses in

information literacy as its own discipline (Badke, 2008; Johnston and Webber, 2003, pp. 341–342).

There are no known reports in the literature that explore how integrating information literacy in institutions of higher education might differ based on organizational characteristics. It is possible that a better understanding of the organizational functioning of colleges and universities may provide insights into how this problem can be addressed.

### APPLICATION OF ORGANIZATIONAL MODELS

A model is a way to view some of the dimensions of organizational functioning. It is a frame that can help to understand an organization (Birnbaum, 1988, 83). This paper proposes that understanding the organizational models highlighted by Birnbaum (1988) may help in developing strategies that libraries in different types of institutions might invoke to institutionalize information literacy. Birnbaum discussed specific strategies for effective leadership and functioning in each model given the differing predominant characteristics. The author proposes customized strategies for each model, based on general strategies for effectiveness drawn from the literature.

#### COLLEGIAL MODEL: CHARACTERISTICS

Institutions that have characteristics of the collegial model tend to have “an emphasis on consensus, shared power, common commitments and aspirations, and leadership that emphasizes consultation and collective responsibilities” (Birnbaum, 1988, 86). Hierarchy does not have great importance because administrators and faculty consider themselves to be equals. Administrators are usually members of the faculty who return to teaching when their terms as administrators expire. These institutions tend to be small. The people who work in collegial institutions generally value thoroughness and deliberation. As a result, decisions take time and they are a result of thorough discussion, consideration, and consensus. The preferred method for communication is informal. There is a strong, coherent culture with distinctive symbols and rites. Faculty satisfaction comes from involvement in campus activities rather than from external sources such as recognition within the person’s discipline, awards, or citation rankings. They are *like a family* (Birnbaum, 1988, 132).

#### COLLEGIAL MODEL: STRATEGIES FOR EFFECTIVENESS AND IMPLICATIONS FOR INFORMATION LITERACY

These are some of the strategies for effectiveness in a collegial institution:

- Listen to understand expectations
- Appeal to the norms and values of the institution
- Involve key people in issues
- Use expert power
- Use influence rather than coercion
- Use established communication channels
- Make deviations from the group visible
- Direct, rather than sanction or alienate (Birnbaum, 1988, 100–104)

These strategies can be applied to information literacy work on the campus. Those interested in furthering information literacy in such institutions might attend meetings, socials, and events where they may engage in informal discussion. They should be well-informed so they may participate actively in discussions and should develop consensus-building skills. They might sponsor a forum on information literacy that could stimulate discussion. Learning about the norms and values of the institution would help in crafting a rationale for information literacy that would be accepted by campus stakeholders. They should work to develop relationships with key people on the campus. They can make deviations from the group visible by providing incentives for engaging

in information literacy, publicizing information literacy successes, and giving awards. Publicity can occur through established communication channels, such as the campus newspaper, Web sites, discussion lists, or blogs. They could use symbols that are meaningful to the people on that campus in discussing information literacy. They can exhibit expert power and influence by giving presentations, publishing writings, and performing consultation work. They can direct through recommendations developed by engaging in a collaborative process.

#### BUREAUCRATIC MODEL: CHARACTERISTICS

Characteristics of the bureaucratic model are clearly-defined rules; a systematic division of labor; designation of authority to carry out tasks; a hierarchical organizational structure; and the recording in writing of administrative acts, decisions, and rules (Weber, 1969, p. 27–29). The bureaucratic model tends to occur in larger institutions. The goals of these organizations are efficiency and effectiveness. They are hierarchical and the organization chart is very important. It determines the relative importance of the different functions, indicates the division of labor, and defines status and communication channels. One’s position in the organization chart implies the degree of expertise one has. Units that report to the same person tend to communicate more than those that report to different people because campus units tend to be isolated from each other. Rules and regulations govern behaviors to try to ensure consistency and fairness. Behavior is rational: work is done by setting goals and objectives. Administrators are specialists in their fields. They spend little time with the faculty. They interact with other administrators and with people outside of the institution who are not faculty. They are *like a machine* (Birnbaum, 1988, 132).

#### BUREAUCRATIC MODEL: STRATEGIES FOR EFFECTIVENESS AND IMPLICATIONS FOR INFORMATION LITERACY INTEGRATION

These are some of the strategies for effectiveness in a bureaucratic institution:

- Locate positions prominently in the organizational chart
- Use power to reward and punish
- Issue supervisory directives
- Make decisions by rational analysis and use of data
- Develop and use processes and procedures
- Identify individuals who control specific areas (Birnbaum, 1988, 122–127)

Those who want to further information literacy in such institutions might meet with those who have a prominent position in the organizational chart, such as university administrators, faculty governance leaders, and student organization leaders. They can use their expert power to present data and rational arguments to influence decision-making. Established mandates, such as accreditation standards, and industry reports are likely to have influence. Senior administrators in the library are key people for promoting information literacy on the campus because of their position in the organizational chart. The person who leads information literacy in the libraries should have a high reporting position. Library and college administrators can use their power to issue directives and to offer incentives and awards to faculty for including information literacy in their courses. They can use existing studies and compile data to develop plans.

#### POLITICAL MODEL: CHARACTERISTICS

People are particularly important in institutions with the political model because policy occurs through influence and informal processes (Kezar and Eckel, 2004, p. 382). These organizations are complex. Power and decision-making occur throughout the organization. Negotiation and special interest groups influence decisions. Interdependence causes competition for power and resources. Power is issue-specific, that is, it shifts to different groups or individuals depending on the issue at hand.

Conflict is inherent because of competition for resources and changing authority groups. This increases the cohesiveness of coalitions that form around an issue. This type of organization is *like a shifting kaleidoscope of interest groups, changing as issues emerge* (Birnbaum, 1988, 132).

### **POLITICAL MODEL: STRATEGIES FOR EFFECTIVENESS AND IMPLICATIONS FOR INFORMATION LITERACY**

These are some of the strategies for effectiveness in a political institution:

- Get agreement on values, then design programs consistent with the values
- Negotiate because conflict and disagreement are normal
- Realize you may not get all you want but can usually get something so plan for incremental progress
- Build coalitions
- Find common ground and compromise
- Reduce the cost of participation and give incentives
- Use your intuition and experience
- Be present because timing is critical (Birnbaum, 1988, 146–150)

Those interested in furthering information literacy in such institutions might consider sponsoring a forum or planning retreat to build support, develop coalitions, or to find common ground. They should learn about the organizational climate by involving all library staff because different staff members would have access to different communication channels. They can use professional networking skills. They should anticipate possible reactions that others might have to their ideas and proposals and prepare responses. They should expect conflict and learn conflict resolution techniques. They might meet with stakeholders to gain support. They should decide in advance what is critical to win and what can be deferred. They can then develop a strategy for next steps in accomplishing their information literacy goals. They should learn about the agendas of different constituencies and the priorities of groups across campus. They can provide awards and incentives for advancing information literacy.

### **ORGANIZED ANARCHY MODEL**

Institutions that have characteristics of organized anarchies have “multiple and conflicting demands on their attention, priorities, and performance” (Birnbaum, 1988, 167). As organizations grow larger or as their complexity increases, units can become more independent of each other (called loose coupling or loosely coupled). There is little agreement about preferences and in decision-making, and cause and effect are not strongly linked (Wieck, 1982, p. 384). These institutions have vague and unclear goals. The processes used to achieve goals are unclear. People who work in those institutions participate in issues in a fluid manner, that is, they join and leave groups depending on their interest in the priority issues for the groups at any particular time (Birnbaum, 1988, 153–167).

In a loosely coupled system, it is not necessary for all of the elements of the organization to respond to changes in the environment (Wieck, 2000, p. 40). Therefore, local units can quickly make adaptations to respond to problems. “In loosely coupled systems where hierarchical authority is weak and most employees behave as self-managing professionals, political decision processes, bounded by the rules and constraints of the bureaucratic system, appear to be an effective way to incorporate multiple points of view and a wide spectrum of information” (Cameron and Tschirhart, 1992, p. 102). A defining characteristic of this model is garbage-can decision-making. In this model, there are two continuous parallel “streams” consisting of (1) problems needing resolution, and (2) solutions. Problems become coupled with solutions due to circumstances, politics, or other seemingly chance occurrences (Birnbaum, 1988, 153–167). Although the term, “garbage-can,” has

derogatory implications, an appropriate and more neutral synonym would be “container.”

Decision-makers spend little time on issues because there are so many, causing overload. Issues themselves are less important to decision-makers than “the implication of that outcome for their own sense of self-esteem and the social recognition of their importance...the decision-making process is a status-certifying rather than a choice-making system” (Cohen and March, 2000, p. 24, 27). These organizations have high inertia because it takes so much effort to begin or end efforts (Cohen and March, 2000, p. 22–23).

There are a few applications of this model to libraries cited in the literature. Chu studied the factors that influence collaboration between an academic library and academic departments in a loosely coupled system in one university (Chu, 1995, p. 138). He studied the relationships between librarian liaisons and academic department library representatives. He found that the groups did not have a shared understanding of the purpose for collaboration on collection decisions (Chu, 1995, p. 147). There was general agreement that the library should support the curricula, but there was no detailed understanding of how this should occur (Chu, 1995, p. 147).

Green and Swanson (2011) described the inefficiency of a loosely coupled system in relation to library reference service. They explained that this was due to difficulty in communicating with others who provided reference service. But that decentralization did allow the librarians the autonomy to work with many students and faculty of students and to use creativity to adapt the service to the needs of patrons (p. 376). They indicated that the literature “supports the notion that there is a widespread awareness that libraries are loosely coupled to their parent organizations and larger national consortiums (Green and Swanson, 2011, p. 380). Hughes referred to organized anarchy in explaining why chief academic officers and library directors had widely differing opinions on high priority issues for campuses in a study she conducted (Hughes, 1992, p. 144).

### **ORGANIZED ANARCHY MODEL: PROPOSED STRATEGIES FOR EFFECTIVENESS AND IMPLICATIONS FOR INFORMATION LITERACY**

These are some of the strategies for effectiveness in an organized anarchy institution:

- Choose a few important issues on which to focus, and spend time to influence decisions on those
- Persist because of the abundance of problems competing for attention at any one time
- Include people who have opposing viewpoints on committees and in decision-making processes
- Focus on organizational units that are particularly receptive
- Allow for specialized adaptation that is relevant to particular units
- Overload the system with proposals or recommendations so that at least some will move forward
- Make small changes that are unlikely to be controversial, but could have substantial effects
- Invoke the institution’s history to build an argument (Birnbaum, 1988, 166–73)

Those interested in furthering information literacy in such institutions should identify the most critical things that need to be accomplished first. They should have contingency plans because they are unlikely to achieve all of their goals immediately. They might formally and informally discuss information literacy regularly with people on campus. They should strategize to keep information literacy prominent on campus agendas. They can saturate faculty and administrators with news about information literacy to “overload the system.” They should be aware of curriculum reviews that might be beginning in the academic departments or new programs that have been approved as opportunities to advocate for information literacy.

Small changes that can have large effects are programs such as roving librarians, embedded librarian, first-year experience programs, participation in retirement or alumni learning, college reads, and leading book discussion groups. They can appeal to history by incorporating phrases into discussions such as, “when the university was founded...,” or by referring to the views of a respected professor, and relating it to information literacy. They should involve possible opponents when making plans or decisions related to information literacy.

### SUMMARY

Table 1 summarizes the differences in strategies that might be used to help in institutionalizing information literacy in four organizational models of colleges and universities. The strategies are organized in the categories: communication, relationships, institutional knowledge, incentives, publicity, power, and processes. The table shows that there are no strategies common to all of the models. Providing incentives and awards are common to three of the four (collegial, bureaucratic, and political). Thus, it appears that different strategies should be more effective in institutionalizing information literacy based on general characteristics of the institution.

### CONCLUSION

An understanding of the characteristics of four models of colleges and universities can assist in developing strategies for institutionalizing information literacy. Each model varies according to how effective communication occurs, which campus relationships should be developed and how, what institutional knowledge should be invoked, whether incentives and awards are helpful, what publicity is important, how power should be used, and what processes are important. Those who want to institutionalize information literacy need to have the ability to identify the organizational norms and preferences of their institution and plan accordingly.

Future research might focus on testing the suggestions posited in this paper for institutionalizing information literacy in four models of higher education institutions. To examine these models along with the organizational cultures of individual institutions, one might conduct a study of both, as did Kezar and Eckel (2002). Studies might focus on the effectiveness of the strategies proposed in different types of institutions. This may have implications for the recruitment and training of librarians and library leaders for each type of institution to ensure their success with information literacy.

**Table 1**  
**Some possible strategies for institutionalizing information literacy in four organizational models**

	<b>Collegial</b>	<b>Bureaucratic</b>	<b>Political</b>	<b>Organized anarchy</b>
Communication	Engage in informal discussion. Use established communication channels.		Involve all library staff to maximize networking and information-gathering.	Engage in ongoing formal and informal discussions. Keep information literacy prominent on agendas.
Relationships	Develop relationships with key people. Develop consensus-building skills.	Meet with people who have prominent position in organizational chart.	Cultivate support. Build coalitions. Find common ground. Learn conflict resolution techniques.	
Institutional knowledge	Learn institutional norms and values. Use meaningful symbols.		Learn about other constituencies' agendas.	Appeal to the institution's history.
Incentives	Provide incentives. Give awards.	Provide incentives. Give awards.	Provide incentives. Give awards.	
Publicity	Publicize successes.			Saturate campus with information literacy.
Power	Use “expert power.”	Influence through library administrators. Place information literacy leadership positions high in the organizational chart Issue directives.		
Processes	Use a collaborative process to develop recommendations.	Present data and rational arguments. Use established mandates, such as accreditation standards.	Decide what is critical to win and what can be deferred. Anticipate reactions and prepare responses.	Involve possible opponents. Identify most critical things to accomplish. Have contingency plans. Focus on units that are receptive. Implement small changes that have large effects. Advocate during curriculum reviews and when new programs are approved.

## REFERENCES

- Achieve, Out of Many, One: Toward Rigorous Common Core Standards from the Ground Up (2008), Available: <http://www.achieve.org/files/CommonCore.pdf> (accessed 5 March 2012).
- ACRL, Presidential Committee on Information Literacy Final Report (1989), Available: <http://www.ala.org/ala/mgrps/divs/acrl/publications/whitepapers/presidential.cfm> (accessed 5 March 2012).
- American Management Association, AMA 2010 Critical Skills Survey 2010, Available: <http://www.p21.org/documents/Critical%20Skills%20Survey%20Executive%20Summary.pdf> (accessed 5 March 2012).
- William Badke, "A Rationale for Information Literacy as a Credit-Bearing Discipline," *Journal of Information Literacy* 2, 1 (2008), Available: <http://jil.lboro.ac.uk/ojs/index.php/JIL/article/view/RA-V2-I1-2008-1> (accessed 5 March 2012).
- William H. Bergquist and Kenneth Pawlak, *Engaging the Six Cultures of the Academy* (San Francisco, CA: Jossey-Bass Publishers, 2008).
- James L. Bess, *Collegiality and Bureaucracy in the Modern University: The Influence of Information and Power on Decision-Making Structures* (New York: Teachers College Press, 1988).
- Robert Birnbaum, "The Cybernetic Institution: Toward an Integration of Governance Theories," *Higher Education* 18 (1989): 239–253.
- Robert Birnbaum, *How Colleges Work: The Cybernetics of Academic Organization and Leadership* (San Francisco: Jossey Bass, 1988).
- Boekhorst, Albert K and F. Woody Horton, 2009. "Training-The-Trainers in Information Literacy (TTT) Workshops Project: Final Report to UNESCO," *International Information & Library Review* 41 (2009): 224–230.
- Patricia Senn Breivik and E. Gordon Gee, *Information Literacy: Revolution in the Library* (New York: American Council on Education, 1989).
- Patricia Senn Breivik and E. Gordon Gee, *Higher Education in the Internet Age: Libraries Creating a Strategic Edge* (Westport, CT: Praeger, 2006).
- Christine Bruce, "Faculty–Librarian Partnerships in Australian Higher Education: Critical Dimensions," *Reference Services Review* 29, 2 (2001): 106–116.
- Kim S. Cameron and Mary Tschirhart, "Postindustrial Environments and Organizational Effectiveness in Colleges and Universities," *Journal of Higher Education*, 63, 1 (1992): 87–108.
- Ines Casanovas, 2010. "Exploring the Current Theoretical Background about Adoption until Institutionalization of Online Education in Universities: Needs for Further Research," *Electronic Journal of e-Learning* 8, 2 (2010): 73–84. Available: <http://www.ejel.org> (accessed 5 March 2012).
- Felix T. Chu, "Collaboration in a Loosely Coupled System: Librarian–Faculty Relations in Collection Development," *Library and Information Science Research* 17 (1995): 135–150.
- Burton R. Clark, "Higher Education American-Style: A Structural Model for the World," *Educational Record*, 71, 4 (1990): 24–27.
- Michael D. Cohen and James G. March, "Leadership in an Organized Anarchy." In *Organization & Governance in Higher Education*, 5<sup>th</sup> ed., ed. M. Christopher Brown II (Boston: Pearson Custom Publishing, 2000), 16–35. Reprinted from Michael D. Cohen and James G. March, "Leadership in an Organized Anarchy" (Boston, MA: Harvard Business School Publication, 1986).
- John Caskie Crawford and Christine Irving, "Going beyond the 'Library': The Current Work of the Scottish Information Literacy Project," *Library and Information Research* 32, 102 (2008): 29–37.
- E. D. Duryea, "Evolution of University Organization," In *Organization & Governance in Higher Education*, 5<sup>th</sup> ed., ed. M. Christopher Brown II (Boston: Pearson Custom Publishing, 2000), 3–15. Reprinted from "The University as an Organization," ed. By James A. Perkins, 1973, The Carnegie Foundation for the Advancement of Teaching.
- Sarah Devotion Garner, High-Level Colloquium on Information Literacy and Lifelong Learning Bibliotheca Alexandrina, Alexandria, Egypt, November 6–9, 2005: Report of a Meeting Sponsored by the United Nations Education, Scientific, And Cultural Organisation (UNESCO), National Forum on Information Literacy (NFIL) and the International Federation of Library Associations and Institutions (IFLA) 2006, Available: <https://docs.google.com/fileview?id=0B3SNEP9j56rIZGY3ODM4MDQtMGNiNS00TcyLTk0YmEtYjI0OD11ZmU3ZGQ1&hl=en> (accessed 5 March 2012).
- Tom W. Goad, *Information Literacy and Workplace Performance* (Westport, CT: Quorum Books, 2002).
- Jeremy Green and Troy Swanson, "Tightening the System: Reference as a Loosely Coupled System," *Journal of Library Administration* 51 (2011): 375–388.
- F. Woody Horton and Barbie Keiser, "Encouraging Global Information Literacy," *Computers in Libraries* 28, 10 (2008): 6–32.
- Carol A. Hughes, "A Comparison of Perceptions of Campus Priorities: The 'Logical' Library in an Organized Anarchy," *Journal of Academic Librarianship* 18, 3 (1992): 140–145.
- Bill Johnston and Sheila Webber, "Information Literacy in Higher Education: A Review and Case Study," *Studies in Higher Education* 28, 3 (2003): 335–352.
- Adrianna Kezar and Peter D. Eckel, "The Effect of Institutional Culture on Change Strategies in Higher Education," *Journal of Higher Education* 73, 4 (2002): 435–460.
- Adrianna Kezar and Peter D. Eckel, "Meeting Today's Governance Challenges: A Synthesis of the Literature and Examination of a Future Agenda for Scholarship," *Journal of Higher Education* 75, 4 (2004): 371–399.
- Annemarie Lloyd, *Information Literacy Landscapes: Information Literacy in Education, Workplace and Everyday Contexts* (Oxford: Chandos Publishing, 2010).
- Heinz-Dieter Meyer, "From 'Loose Coupling' to 'Tight Management'? Making Sense of the Changing Landscape in Management and Organization Theory," *Journal of Educational Administration* 40, 6 (2002): 515–520.
- John W. Meyer and Brian Rowan, "Institutionalized Organizations: Formal Structure as Myth and Ceremony," *American Journal of Sociology* 83 (1977): 340–363.
- Susan Moeller, Ammu Joseph, Jesus Lau and Toni Carbo, Towards Media and Information Literacy Indicators: Background Document of the Expert Meeting 4–6 November 2010, Bangkok, Thailand (Paris: UNESCO, 2011), Available: [http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/unesco\\_mil\\_indicators\\_background\\_document\\_2011\\_final\\_en.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/unesco_mil_indicators_background_document_2011_final_en.pdf) (accessed 5 March 2012).
- Framework for 21<sup>st</sup> Century Learning (Tucson, AZ: Partnership for 21<sup>st</sup> Century Skills, 2009), Available: [http://www.p21.org/documents/P21\\_Framework.pdf](http://www.p21.org/documents/P21_Framework.pdf) (accessed 5 March 2012).
- Anne Marie Perrault, American Competitiveness in the Internet Age: Information Literacy Summit, October 16, 2006, Washington, DC (National Forum on Information Literacy, 2007), Available: <https://docs.google.com/fileview?id=0B3SNEP9j56rI0DA2MTI3MDktOTE4My00MjkwLWJhMTgtOWZkYjI4MGQzZTVj&hl=en&pli=1> (accessed 5 March 2012).
- Peter D. Hart Research Associates/Public Opinion Strategies, Rising to the Challenge: Are High School Graduates Prepared For College And Work? Study of Recent High School Graduates, College Instructors, and Employers (Washington, DC: Achieve, Inc., 2005), Available: [http://www.achieve.org/files/pollreport\\_0.pdf](http://www.achieve.org/files/pollreport_0.pdf) (accessed 5 March 2012).
- Anthony A. Piña, "Factors Influencing the Institutionalization of Distance Education in Higher Education," *Quarterly Review of Distance Education* 9, 4 (2008): 427–438.
- Hannelore B. Rader, "A Silver Anniversary: 25 Years of Reviewing the Literature Related to User Instruction," *Reference Services Review* 28, 3 (2000): 290–296.

- Ilene F. Rockman and Associates, *Information Literacy into the Higher Education Curriculum: Practical Models for Transformation* (San Francisco, CA: Jossey-Bass, 2004).
- Lorilee R. Sandmann and David J. Weerts, "Reshaping Institutional Boundaries to Accommodate an Engagement Agenda," *Innovative Higher Education* 33, 3 (2008): 181–196.
- Elizabeth Shrader, Mary Anne Saunders and Sam Marullo, "Institutionalizing Community Based Learning and Research: The Case for External Networks," *Michigan Journal of Community Service Learning* 14, 2 (2008): 27–40.
- Keely Jones Stater and Eric Fotheringham, "Mechanisms for Institutionalizing Service-Learning and Community Partner Outcomes," *Journal of Higher Education Outreach and Engagement* 13, 2 (2009): 7–30.
- Ruth Stubbings and Ginny Franklin, "Does Advocacy Help to Embed Information Literacy into the Curriculum? A Case Study," *ITALICS* 5, 1 (2006), Available: <http://www.ics.heacademy.ac.uk/italics/vol5-1/pdf/stubbings-franklin-final.pdf> (accessed 5 March 2012).
- William G. Tierney, *The Impact of Culture on Organizational Decision Making: Theory and Practice in Higher Education* (Sterling, VA: Stylus, 2008).
- Martha Townsend, "WAC Program vulnerability and what to do about it: An update and brief bibliographic essay," *The WAC Journal* 19 (2008): 45–61. Available: <http://wac.colostate.edu/journal/vol19/townsend.pdf> (accessed 5 May 2012).
- Diane VanderPol, Jeanne M. Brown, and Patricia Iannuzzi, "Reforming the Undergraduate Experience," *New Directions for Teaching and Learning* 114 (2008): 5–15.
- Max Weber, "Bureaucratic Organizations," In *Readings on Modern Organizations*, ed. Amitai Etzioni (Englewood Cliffs, NJ: Prentice-Hall, 1969).
- Sharon A. Weiner, 2010 "Information Literacy: A neglected core competency," *EDUCAUSE Quarterly* 33, 1 (2010). Available: <http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/InformationLiteracyANeglectedC/199382> (accessed 5 March 2012).
- Karl E. Wieck, "Educational Organizations as Loosely Coupled Systems," In *Organization & Governance in Higher Education*, 5<sup>th</sup> ed., ed. M. Christopher Brown II (Boston: Pearson Custom Publishing, 2000), p. 36–49.
- Karl E. Wieck, "Management of Organizational Change Among Loosely Coupled Elements," In *Change in Organizations: New Perspectives on Theory, Research, and Practice*, by Paul S. Goodman and Associates (San Francisco, CA: Jossey-Bass Publishers, 1982), p. 375–408.
- Xue Zhang, Shaheen Majid, and Shubert Foo, 2010. "Environmental Scanning: An Application of Information Literacy Skills at the Workplace," *Journal of Information Science* 36 (2010): 719–732.
- Paul G. Zurkowski, 1974. *The Information Service Environment: Relationships and Priorities*. Washington, DC: National Commission on Library and Information Science (1974), Available: <http://www.eric.ed.gov/PDFS/ED100391.pdf> (accessed 31 October 2011).
- Christopher C. Morphew, "Conceptualizing Change in the Institutional Diversity of U.S. Colleges and Universities," *Journal of Higher Education* 80 (3) (2009): 243–269 (May–Jun).