The following articles on technical communication have appeared recently in other journals. The abstracts are prepared by volunteer journal monitors. When the abstracts published with articles are used, they are enclosed in quotation marks. If you would like to contribute, contact Sherry Southard at southards@ecu.edu.

“Recent and Relevant” does not supply copies of cited articles. However, most publishers supply reprints, tear sheets, or copies at nominal cost. Lists of publishers’ addresses, covering nearly all the articles we have cited, appear in Ulrich’s International Periodicals Directory.

**Coherence in workplace instant messages**

“In our case study, we examined the instant messaging (IM) workplace discourse of a pair of expert IM users. We found that the participants maintained discourse cohesion and thus coherence via short, rapidly sent transmissions that created uninterrupted transmission sequences. Such uninterrupted transmission sequences allowed each participant to maintain the floor. Also, the participants used topicalizations and performative verbs to maintain coherence. We also found that the participants’ use of short transmissions may have ambiguously their enactment of their institutional roles and the rights afforded to them by those roles.”

Valerie J. Vance

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**Improving disaster management**

“Social networking, sophisticated imaging, and dual-use technologies promise improved disaster management, but they must be adopted by governments and aid agencies if more lives are to be saved in the wake of crises.”

Sherry Southard

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**Improving extreme-scale problem solving: Assessing electronic brainstorming effectiveness in an industrial setting**

“This paper uses social network analysis to examine the interaction between corporate blogs devoted to sustainability issues and the blogosphere, a clustered online network of collaborative actors. By analyzing the structural embeddedness of a prototypical blog in a virtual community, we show the potential of online platforms to document corporate social responsibility (CSR) activities and to engage with an increasingly socially and ecologically aware stakeholder base. The results of this study show that stakeholder involvement via sustainability blogs is a valuable new practice for CSR communications and stakeholder engagement. It also opens new horizons for communicating CSR issues to key constituencies online.”

Christine Cranford

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**Corporate social responsibility in the blogosphere**

“This paper uses social network analysis to examine the interaction between corporate blogs devoted to sustainability issues and the blogosphere, a clustered online network of collaborative actors. By analyzing the structural embeddedness of a prototypical blog in a virtual community, we show the potential of online platforms to document corporate social responsibility (CSR) activities and to engage with an increasingly socially and ecologically aware stakeholder base. The
findings beyond the laboratory to larger groups of real-world employees addressing organization-relevant challenges during the course of 4 days. Employees and contractors at a national laboratory participated, either in a group setting or individually, in an electronic brainstorm to pose solutions to a real-world problem. The data demonstrate that (for this design) individuals perform at least as well as groups in producing quantity of electronic ideas, regardless of brainstorming duration. However, when judged with respect to quality along three dimensions (originality, feasibility, and effectiveness), the individuals significantly (p < .05) outperformed the group. When quality is used to benchmark success, these data indicate that work-relevant challenges are better solved by aggregating electronic individual responses rather than by electronically convening a group. This research suggests that industrial reliance on electronic problem-solving groups should be tempered, and large nominal groups may be more appropriate corporate problem-solving vehicles.

Sherry Southard

The rhetorical situations of Web resumes


“This article questions how professional communication genres already well established in print form have been changing as they are transplanted into digital media like the Web. Whereas some technology-oriented genre research has sought how a new medium provides genres with new technological features, this article argues that a more insightful approach would seek how a new medium, together with its users, provides genres with new rhetorical situations. I adapt Lloyd Bitzer’s three situational dimensions of exigence, audience, and constraints. Then, to illustrate how the new rhetorical situations of the Web can influence a genre, I explore the genre of the resume. Drawing on a survey of 100 Web resume authors and an analysis of their sites, I show that as each of the three dimensions of the resume’s traditional rhetorical situation has opened itself to greater diversity on the Web, the Web version of the resume genre has correspondingly reoriented itself. Hence, genres change in response not just to the new medium’s technology per se but to the new rhetorical situations that the medium hosts.”

Valerie J. Vance

Rhetorics of alternative media in an emerging epidemic: SARS, censorship, and extra-institutional risk communication


“This article examines how professionals and the public employed alternative media to participate in unofficial risk communication during 2002 SARS outbreak in China. Whereas whistle-blowers used alternative media such as independent overseas Chinese Web sites and contesting Western media, anonymous professionals and the larger communities relied more on guerrilla media such as text messages and word of mouth to disseminate risk messages during official silence and denial.”

Valerie J. Vance

Writing an introduction to the introduction


“Many authors give advice to students about how to write the Introduction section of their articles. Some give examples of different ways of doing this in general, and a few discuss the opening sentence in particular. In this article, 13 different types of opening sentences are outlined, and their usage contrasted in British and American journals in the Sciences and Social Sciences. Implications for teaching are considered.”

Valerie J. Vance
**Computer Issues**

**Analysis of alternative keyboards using learning curves**


“To quantify learning percentages for alternative keyboards (chord, contoured split, Dvorak, and split fixed angle) and understand how physical, cognitive, and perceptual demand affect learning …. Alternative keyboards have been shown to offer ergonomic benefits over the conventional, single-plane QWERTY keyboard design, but productivity-related challenges may hinder their widespread acceptance …. Sixteen participants repeatedly typed a standard text passage using each alternative keyboard. Completion times were collected and subsequent learning percentages were calculated. Participants were asked to subjectively rate the physical, cognitive, and perceptual demands of each keyboard, and these values were then related to the calculated learning percentages …. Learning percentage calculations revealed the percentage for the split fixed-angle keyboard (90.4%) to be significantly different ($p < .05$) from the learning percentages for the other three keyboards (chord, 77.3%; contour split, 76.9%; Dvorak, 79.1%). The average task completion time for the conventional QWERTY keyboard was 40 s, and the average times for the fifth trial on the chord, contoured split, Dvorak, and split fixed-angle keyboards were 346, 69, 181, and 42 s, respectively …. Productivity decrements can be quickly regained for the split fixed-angle and contour split keyboard but will take considerably longer for Dvorak and chord keyboards. The split fixed-angle keyboard involved physical learning, whereas the others involved some combination of physical and cognitive learning, a result supported by the subjective responses …. Understanding the changes in task performance time that come with learning can provide additional information for a cost-benefit analysis when considering the implementation of ergonomic interventions.

Sherry Southard

**Delays and user performance in human-computer-network interaction tasks**


“This article describes a series of studies conducted to examine factors affecting user perceptions, responses, and tolerance for network-based computer delays affecting distributed human-computer-network interaction (HCNI) tasks …. HCNI tasks, even with increasing computing and network bandwidth capabilities, are still affected by human perceptions of delay and appropriate waiting times for information flow latencies …. Conducted were 6 laboratory studies with university participants in China (Preliminary Experiments 1 through 3) and the United States (Experiments 4 through 6) to examine users’ perceptions of elapsed time, effect of perceived network task performance partners on delay tolerance, and expectations of appropriate delays based on task, situation, and network conditions …. Results across the six experiments indicate that users’ delay tolerance and estimated delay were affected by multiple task and expectation factors, including task complexity and importance, situation urgency and time availability, file size, and network bandwidth capacity. Results also suggest a range of user strategies for incorporating delay tolerance in task planning and performance …. HCNI user experience is influenced by combinations of task requirements, constraints, and understandings of system performance; tolerance is a non-linear function of time constraint ratios or decay …. Appropriate user interface tools providing delay feedback information can help modify user expectations and delay tolerance. These tools are especially valuable when delay conditions exceed a few seconds or when task constraints and system demands are high. Interface designs for HCNI tasks should consider assistant-style presentations of delay feedback, information freshness, and network characteristics. Assistants should also gather awareness of user time constraints.”

Sherry Southard
Recent & Relevant

Feedback preferences and impressions of waiting

“Three experiments examined the effects of various feedback displays on user preference, apparent waiting durations, waiting time reasonableness, and other user experience measures. … User interface guidelines advocate keeping users informed about system status; however, the duration estimation literature shows that focusing on temporal information makes the wait seem longer. How can designers reconcile these issues? … In three experiments, students chose movies from a simulated movie database and then were shown feedback displays (static, sequential dots, constant-rate progress bars, or variable-rate progress bars) for different durations. Users judged how reasonable the wait was and how long it lasted and then ranked their preference for the dialogs. … The pattern of preference results was different from duration-related judgments. Users preferred feedback that provided more information. On the other hand, when judging duration, users perceived simpler interfaces as being most reasonable. … Different types of feedback are required for reducing perceived wait and increasing preference. Ratings of wait time reasonableness were consistent with the attentional gate theory of prospective timing; attention-demanding activity caused the wait to seem less reasonable. Preference, on the other hand, requires keeping users informed about the progress of operations. … Users prefer more feedback rather than less, even if it makes the wait seem less reasonable. However, the constant progress bar performed at the top of both reasonableness and preference, keeping users informed without increasing arousal or focusing attention on temporal stimuli. Other options are also discussed to make duration perceptions more reasonable.”

Sherry Southard

Design

Observational data on practical experience and conditions of use of written instructions

“This article presents a study investigating how people deal with procedural documents when using a new domestic appliance. An observational study was carried out in a quasi-experimental setting in order to outline the behavior of users encountering and using an appliance for the first time. The purpose of this observation was to identify two kinds of factors: on the one hand, factors inciting the use of procedural documents accompanying appliances, and on the other hand, design features facilitating the use of these documents when looking for specific information. User behavior and strategies were categorized using two kinds of indicators: 1) the number of times the documents were examined prior to contact with the appliance and/or while carrying out the prescribed tasks; and 2) the total time required to locate information in three different kinds of documents: Text only, Picture only, Text + Picture. Results show that 16 participants out of 30 spontaneously used the procedural documents before starting to use the appliance. However, during the session, 27 participants consulted the documents at least once. This consultation was determined by the task to carry out and the complexity level of the task. Otherwise, results show that time taken to locate information was shortest when instructions were displayed in text and picture format.”

Valerie J. Vance
**Editing**

*Creating editorial authority through technological innovation*


“This article considers a case in which editors created for themselves an amount of power and authority within an organization through technological innovation. Using retrospective analysis and e-mail interviews, the author discusses his own previous experience as a technical editor at a U.S. Government-run research facility when electronic editing was introduced and used. The introduction of electronic editing, the author argues, was an example of technological innovation, which, as other researchers have demonstrated, can create authority within an organization.”

Valerie J. Vance

*Examining editor-author ethics: Real-world scenarios from interviews with three journal editors*


“Those who submit manuscripts to academic journals may benefit from a better understanding of how editors weigh ethics in their interactions with authors. In an attempt to ascertain and to understand editors’ ethics, we interviewed three current academic journal editors of technical and/or business communication journals. We asked them about the ethical dilemmas they encountered while working with authors, whether the editors formally or informally followed a ‘code of ethics,’ and if they felt obligated to maintain any ethical codes in particular. In this article, we discuss the ethical dimensions of editorial practices using specific ethical scenarios provided by these three editors. We then analyze these scenarios using traditional ethical models in our field but also in terms of a less-known but powerful model of ethical analysis originally proposed by philosopher C. S. Peirce. We argue that Peirce’s ‘community of inquiry’ ethics model describes these journal editors’ ethics when working with authors.”

Valerie J. Vance

**Education**

*Assessing technical communication within engineering contexts—tutorial*


“A major challenge in engineering education is to prepare professionals for communicating well in writing and speaking, using appropriate technologies, within professional contexts. Communication in the global engineering world includes collaboration on cross-functional teams, virtual-project team management, and writing for multiple, complex audiences. This tutorial discusses how one small engineering school has integrated technical communication teaching and assessment throughout the curriculum with demonstrated success. The integrated curriculum, formative and summative assessments, and real-world contexts offer one model to address growing communication challenges.”

Gowri Saraf

*The effect of social presence on affective and cognitive learning in an international engineering course taught via distance learning*


“Distance learning course formats can alter modes of information exchange and interpersonal interaction relative to traditional course formats …. To determine the effect of a distance course format on the knowledge acquisition (cognitive learning) and satisfaction (affective learning) of students, we investigated student learning responses and social presence during a graduate-level engineering course taught via traditional (i.e., professor present in the classroom) and synchronous distance-learning formats …. Direct quantification of participation, academic performance assessment based on homework and exam scores, and survey-based assessments of student perceptions of the course were collected. Based on these data, cognitive and affective learning responses to different technological and interaction-based aspects
of the course were determined for each course format …. We show that while affective learning decreased for students in the distance format course relative to the traditional format, cognitive learning was comparable. Our results suggest that loss of satellite connection and audio losses had a stronger negative effect on student perceptions than video disturbances, and that participation was the most important factor influencing affective learning …. While our findings do not suggest that cognitive learning is strongly affected by social presence, implementing strategies to enhance social presence may improve the overall learning experience and make distance learning more enjoyable for students.”

Christine Cranford

How technical communication textbooks fail engineering students

“Twelve currently popular technical communication textbooks are analyzed for their treatment and discussions of the types of writing that engineers produce. The analysis reveals a persistent bias toward humanities-based styles and genres and a failure to address the forms of argument and evidence that our science and engineering students most need to master to succeed as rhetoricians in their fields. The essay ends with recommendations and calls upon instructors to reenvision the service course in technical communication.”

Valerie J. Vance

Introducing heuristics of cultural dimensions into the service-level technical communication classroom

“A significant problem for practitioners of technical communication is to gain the skills to compete in a global, multicultural work environment. Instructors of technical communication can provide future practitioners with the tools to complete and excel in this global environment by introducing heuristics of cultural dimensions into the service-level classroom. By practicing how to use these heuristics in ‘real-world’ contexts, instructors can prepare students to function as both information architects and symbolic-analytic operators within this global work environment. In this article, I first examine common cultural heuristics as they pertain to business communication. Next, I articulate how technical communicators can benefit from incorporating these heuristics into the classroom. Finally, I offer a pedagogical approach to introducing heuristics of cultural dimensions into the service-level technical communication classroom.”

Valerie J. Vance

Rubric use in technical communication: Exploring the process of creating valid and reliable assessment tools

“Assessing the quality of student efforts and products is a continual necessity for academics and practitioners in technical communication; however, the process of constructing valid and reliable rubrics remains an underexplored topic in the field. This paper first addresses some of the assessment concerns and then describes a case study that documents the development and implementation of one holistic and five analytic rubrics to evaluate undergraduate projects. The discussion focuses on identifying site-specific criteria and training effective raters and is intended to help academics respond to their required accreditation mandates and offer practitioners alternatives for evaluating products and services.”

Gowri Saraf

Student views on learning grammar with web- and book-based materials

“This paper reports on a study which examined students’ attitudes to learning grammar in autonomous contexts and their preferences for the learning materials with which to do so. In all, 38 students were surveyed and 13 of these then spent some time
working in a language resource centre (LRC) with web- and paper-based materials. Students then completed a series of questionnaires concerning what they liked and disliked about the two types of materials. Four participants were then interviewed in more detail about their responses. The data suggest that despite the well-documented advantages of the tutorial role of computers and the notion of the ‘digital native’, participants generally preferred working with paper-based materials. The paper concludes with a discussion of the implications of this for materials that LRCs stock and for the changing role of computers in self-study contexts.”

Lee S. Tesdell

Tech-era L2 writing: Towards a new kind of process

“This study argues that L2 writing pedagogy needs to give more recognition to the impact emerging from new technological tools and online resources. While shifts in approaches from product to process to genre are well documented in the literature, little research has appreciated the collective influence generated by advances in technology. It is suggested here that developments in software and online resources are leading to improvements in many areas of student writing, both at the levels of language and content. Moreover, efficient use of technology could have a significant effect on the way in which teachers provide feedback. Collectively, these advances suggest a new dimension has entered the writing process.”

Lee S. Tesdell

The two-semester thesis model: Emphasizing research in undergraduate technical communication curricula

“This article addresses previous arguments that call for increased emphasis on research in technical communication programs. Focusing on the value of scholarly-based research at the undergraduate level, we present New Mexico Tech’s thesis model as an example of helping students develop familiarity with research skills and methods. This two-semester sequence serves as a capstone experience for students’ writing, designing, editing, and presentation skills. It also involves members of our corporate advisory board and provides an opportunity to teach students to understand and apply research methods to unique projects, skills we argue will benefit students no matter what environments they enter upon graduation.”

Valerie J. Vance

Information Management

Collaborate in context

“This article addresses the role of collaboration in the preparation, management, maintenance, and use of authoritative reference publications in modern companies. It is specifically concerned with how workers interact with reference publications and, most importantly, how the knowledge they glean while using those reference works can be captured and shared for individual, community, and corporate benefit.”

Sherry Southard

Connect your content with your audience—Using wikis and communities to build collaboration with your customers

“Collaboration and new methods of delivering content will not end with wikis and online communities …. Changes in content delivery and management create new roles for content developers, allowing them to facilitate the creation and management of content, and provide new insights into how people use content …. Collaborative tools have enabled a more interactive relationship with the content owners and audience …. As this relationship evolves, the content and the
roles of the content developers and the audience will change.”

**Content for tomorrow: Social media and the dilemmas for technical publications teams**


“In today’s world, technical publications teams must learn how to listen and participate in the conversations that our customers are already having. While we might not always like what they say, we have an unprecedented opportunity to listen in and figure out what information people want so that we can create and curate content experiences that they value … [Blanton lays] out some of the dilemmas that [he sees] emerging as technical publications teams embrace social media.”

**Predicting cost saving—Backing up your claims**


Hackos discusses “how to predict cost savings and how to back up your claims so that they exert positive influence on the decisions makers … [and focuses on four levels of] process changes [that] will have the longest lasting affect on time and cost”: “desktop publishing: the simplest cost savings to make,” “a basic content reuse strategy,” “a complex content reuse strategy,” and “a high-level cost-reduction strategy.”

**A preview of coming attractions: DITA constraints**


“The DITA 1.2 standard is getting ready to depart the station at OASIS with a number of new tools for DITA adopters. These tools include constraints, a refinement of the DITA architecture that makes it easier for you to create consistent, tailored content with minimal investment … This article explains how, with constraints, less can be more.”

**Participation, education, and cooperation: A model for overcoming organizational barriers to change**


Barraclough describes “how a small technical publications department has managed to overcome organizational barriers to increase their participation in product delivery, raise awareness of the requirements and benefits of quality technical publications, and encourage inter-departmental cooperation .... [T]he principles apply to departments and organizations of any size.”

**SDL survey reveals industry rise in adoption of structured authoring**


“SDL recently conducted the 2009 edition of its annual Global Authoring Survey, which has been running since 2006 with the goal of exploring the trends in authoring and technical documentation across the globe. The particular focus is on the tools used for authoring, the dynamics of authoring teams and departments, as well as the trends and shifts in XML and DITA …. [Hurst discusses] the trends that are shaping the industry this year.”
**What’s the big deal?—Just cut and paste?**


“When converting documents from publishing systems … many people cut and paste from the original documents.” Gross explains the difficulties such an approach can cause for special characters and emphasis, tables, tagging inconsistencies, hyperlinking, and other special mark-up requirements.

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**Writing for reuse (or carefully crafted content)**

Reid, D. A. (2010). *Best Practices*, 12, 39–42. [Center for Information Development Management]

“The level of detail in a DITA Module (DM) is a key factor in the reusability of the DM in different configurations and products. The DM is not as reusable if the level of detail is too deep, compared to a module that is a higher level view. The more reuse we can obtain from a module, the cheaper the manual is to produce and the more time we all have to work on other projects.” The author admits that deciding the level of detail is difficult.

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**Professional Issues**

**Breaking the rules: Teaching grammar “wrong” for the right results in technical communication consulting for engineers**


“Technical communication consultants steeped in conventional academic notions of writing pedagogy may encounter different assumptions about the nature of writing and the significance of grammar in writing instruction when they consult with professional engineers. This paper examines historical, theoretical, and practical reasons for these sometimes contradictory beliefs and traces the authors’ efforts to reconcile these differences while planning and conducting a writing seminar for an engineering firm. A strong emphasis on grammar and mechanics can lead to numerous benefits, including a stronger sense of shared purpose between consultants and engineers and a point of entry into additional conversations about institutional writing practices and writing environments.”

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**High-stakes English-language assessments for aviation professionals: Supporting the use of a fully automated test of spoken-language proficiency**


“A recent International Civil Aviation Organization initiative mandates that pilots and air-traffic controllers operating on international routes demonstrate adequate English-language proficiency for successful communication. The Versant Aviation English Test was developed to serve this purpose. It is a fully automated speaking and listening performance test, where administration of the test tasks and scoring of the candidates’ responses are computerized. We argue that not only do candidates engage in cognitively and linguistically appropriate interactions, but that computer-generated scores and human ratings are consistent \((r = 0.94)\), enabling valid score-based decisions to be made on the basis of automated language testing.”

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**Mapping the cultural landscape in engineering education**


“Calls for culture change as key to systemic reform in engineering education implicitly assume the existence of common elements of a distinctive culture. The landscape for engineering education studies that invoke the concept of culture is complex and multi-faceted, yet still ill-defined and incomplete …. The aim of
this study is to develop a conceptual framework of cultural dimensions that has the potential to guide the understanding of culture in the context of engineering education to demonstrate ‘where we are’ and ‘how to get where we want to go’ .... Ethnographic methods within an overarching interpretivist research paradigm were used to investigate the culture of engineering education as manifested in one institution. Adapting Schein’s cultural framework, the data were collected and analyzed to distill from observable behaviors and practices the essence of the culture in the form of tacitly known cultural norms, shared assumptions, and understandings that underpinned the lived experience of staff and students .... The findings are discussed within six cultural dimensions which emerged from the data as: An Engineering Way of Thinking, An Engineering Way of Doing, Being an Engineer, Acceptance of Difference, Relationships, and Relationship to the Environment .... The detailed findings from this study, combined with evidence from other studies, support the view that the proposed six dimensions have the potential to be transferred to other institutions as a practical tool for evaluating and positioning the culture of engineering education.”

Christine Cranford

A new role for place identity in managing organizational change

“In an extension of organizational identity research, we draw on place identity theory (PIT) to argue that employees’ identification with their place of work influences their perceptions of large-scale organizational change. To determine how different types of employees respond to threats to their sense of place identity, we conducted 34 interviews with senior and middle managers, supervisory and nonsupervisory staff, and external stakeholders at a public hospital undergoing change. Groups of employees at lower levels of the organizational hierarchy experienced a stronger sense of place and belongingness and greater disruption to their place identity than those at higher levels. We discuss how place identity operates as a component of social identity as well as the responses managers can make to ways in which employees with different place identifications deal with change.”

Sherry Southard

Systems of classification and the cognitive properties of grant proposal formal documents

“Despite the prominent role of application forms in the process of composing grant proposals, little attention has been given to the rhetorical and ethical implications of their prompts and instructions. This article analyzes classification systems reified within the cognitive properties of online forms that faculty members use to submit grant proposals. Results suggest that the historicity of proposal forms adds to the complexity of developing models that accurately represent proposal writing in multiple contexts.”

Valerie J. Vance

Research

Number of people required for usability evaluation: the 10±2 rule

The authors investigate, for software products, “[t]hree widely used methods for usability evaluation … Think Aloud (TA), Heuristic Evaluation (HE), and Cognitive Walkthrough (CW) …. The overall discovery rates were reported more than any other criterion measure in the usability evaluation experiments and also a key component for projecting required sample size for usability evaluation study. Thus, how many test users or evaluators participate in the usability evaluation is a critical issue, considering its cost-effectiveness.”

Sherry Southard
Scientific Writing

Agency and the rhetoric of medicine: Biomedical brain scans and the ontology of fibromyalgia

“Recent agency scholarship has provided compelling accounts of how individuals can strategically occupy authoritative positions, in order to instantiate change. This article explores the discursive mechanisms of this type of agency in the legitimization of disease. Drawing on ethnographic research, this article investigates how a non-human agent (brain scans) contributed to fibromyalgia’s acceptance within the highly regulated discourses of western biomedicine.”

Valerie J. Vance

“Proof” in pictures: Visual evidence and meaning making in the ivory-billed woodpecker controversy

“This case study focuses on images in three Science articles on the ivory-billed woodpecker, whose rediscovery was recently heralded. Because the primary piece of evidence is a frustrating fuzzy four-second video, two groups of authors ultimately disagree on its interpretation and the same still video images that are used to argue for the sighting are used to argue against it. Given that the authors are making taxonomic arguments, images that closely resemble reality are employed. These images, like all images, are coded, and this analysis seeks to unlock these visual codes to reveal how meaning is made at the site of production, the site of the image, and the site of the audience. It also exposes how meaning making at the site of the image fueled the controversy.”

Valerie J. Vance

Risk communication, space, and findability in the public sphere: A case study of the physical and online information center

“This article uses theories of space and findability to analyze a public information center as an example of multi-modal risk communication. The Yucca Mountain Information Center is an informational space created by the Department of Energy to inform the public about the proposed nuclear waste repository planned for Yucca Mountain, Nevada. As a public space, the Center uses fact sheets, posters, and three-dimensional displays to make arguments about the storage of nuclear waste; we argue that the physical space, text, displays, and online space are all elements of risk communication. We offer a new way to read these elements of risk communication and suggest potential opportunities for public agency.”

Valerie J. Vance

The structure of scientific titles

“This article proposes a taxonomy of scientific titles: those staking claims; those setting problems; and those conveying themes. A close analysis of the deep structure of these titles suggests that their goal is the maximization of information content within a short compass, a compression that permits their easy retrieval in computerized searches. Placing these titles into the context provided by Gross, Harmon, and Reidy’s Communicating Science suggests further that titles evolved to this point by adapting to changes in systems of information retrieval.”

Valerie J. Vance
Virtuous or vicious? Agency and representation in biotechnology’s virtuous cycle

“This article provides a fresh examination of claims that biotechnology and other high profile areas of scientific research and development create a ‘virtuous cycle’ that delivers benefits to society and ecology through an array of consumer products. Specifically, the article investigates who and what has agency in this virtuous cycle and who and what does not. I argue that official discourses on and definitions of biotechnology create strict demarcations not only on who can act in relation to biotechnology research development options, but also on where and at what stages of the virtuous cycle these agents can act. For example, scientists are presented as passive rather than active agents whose influence is limited to the laboratory context despite rhetorical use of their identity and credibility across all contexts of product development and consumption explored. Agency is highly significant in biotechnology and other areas of scientific advance because it determines who or what has moral decision making power regarding the place of new technologies in society. The article concludes with a discussion of the social and ethical impacts of these demarcations of agency in biotechnology’s virtuous cycle.”

Valerie J. Vance

Distributing memory: Rhetorical work in digital environments

“This article presents data from a long-term, qualitative study of writers appropriating new software tools for note taking. Instead of asking whether a writer knows how to use the discrete features specific to a software program, I argue that we might more profitably ask about the properties of functional systems that allow writers to flexibly meet the demands of their literate activity.”

Valerie J. Vance

Guest editors’ introduction: New technological spaces

Swarts and Kim examine genres and the space of rhetorical action. Most of their introduction provides context for the articles included in the special issue by discussing the topics of “Genres and the Spaces of Rhetorical Action,” “Places, Spaces, and Rhetorical Action,” “Modularity: The Structure of Information Spaces,” “Literate Action in Hybrid Spaces,” and “Why Hybrid Spaces Matter in Technical Communication.” They conclude that “writing has become associated with a greater range of rhetorical acts that respond to and are shaped by the hybrid spaces where they are carried out.”

Valerie J. Vance

I, myself and e-myself

“Although it is useful to understand the psychological underpinning of online users, the adoption of psychological theories and instances should be performed with caution and with due regard to
applicability. Many Web developers start with the premise that an individual’s perceptions, thoughts and online behaviors are similar to their personality in the real world. However, if this premise itself is wrong—that is, if an individual becomes a different person when online, then our theories along with our business strategies may require modification. It is our position that study of the development of the virtual personality is vital because human beings perceive, think, and behave differently when they are online.”

Sherry Southard

**Individual resistance to IT innovations**


“Possibly, more important than the intention to adopt, is the intent ’not to adopt’ a new technology. IT innovations are complex and content-sensitive and differ across a variety of factors including features, usability, and connectivity. If companies can better understand the non-adopter, they can use creative strategies to move such individuals into the adopter category, which can ultimately increase product visibility and revenue generation.”

Sherry Southard

**Information, architecture, and hybridity:**

*The changing discourse of the public library*


“In an industrial society, the library is associated with modern economic, political, and social metanarratives. With the rise of digital technology, public libraries are threatened with the possibility of becoming obsolete and irrelevant. Spaces and interfaces intersect with modern and postmodern narratives as the library vies to establish its identity as a legitimizer and purveyor of knowledge in the information age. Through architecture, the library comes to speak the language of hybridity to reassert its relevance and reposition itself.”

Valerie J. Vance

**New search challenges and opportunities**


“[T]he type of content [of the web] is expanding dramatically, with blogs and Twitter feeds, maps and videos, photos and podcasts … For search engines, this enormous variety of data and formats is providing both new challenges and new opportunities.” Savage discusses very briefly some of the issues and research.

Sherry Southard

**To scroll or not to scroll: Scrolling, working memory capacity, and comprehending complex texts**


“The purpose of these experiments was to examine the effects of user characteristics on learning from scrolling interfaces …. Although scrolling Web pages are now common, few studies have explored the effects of scrolling on understanding the content that is being conveyed …. This set of studies investigated whether presenting text in two particular formats has an effect on comprehension for readers who differ in working memory capacity …. Results from both studies indicated that a scrolling format reduced understanding of complex topics from Web pages, especially for readers who were lower in working memory capacity …. These findings show that the way text is presented can interact with learner abilities to affect learning outcomes …. These results have implications for both educational technology and human interfaces that present information using displays that can vary in size and construction.”

Sherry Southard

**Toward a rhetoric of locale: Localizing mobile messaging technology into everyday life**


“This article explores the social meaning of *locale* in mobile communication research and introduces an approach of user localization to study technology
integration. It investigates how *locale* forms an essential role in mobile communication in the way that practice, agency, and identities are articulated into a user localization process of incorporating technology into user’s everyday life. It argues that the use of mobile communication technology is both a complex and dynamic interaction with its surrounding social, cultural, technological, and economic conditions, and an articulation work of self and locale.”

Valerie J. Vance

**Using actor network theory to trace and improve multimodal communication design**


“During the aftermath of recent disasters (both natural and human made), people have communicated by cobbling together available social software resources—relying on the capabilities of Internet tools such as blogs, news sites, and Flickr. Examining the use of social software taking place after the London bombings of July 7, 2005, I propose a method by which we can study users’ literate appropriations to shape the development of more accommodating communication systems.”

Valerie J. Vance

**Woodward paths: Motorizing space**


“This essay takes up the call for a rhetoric of distributed space by proposing a folksonomic rhetoric. Folksonomies, systems in which users may name any object, space, idea, or image any name they want, offer technical communicators new possibilities for how they work in network environments. As a way to explore the possibility of a folksonomic rhetoric, this essay examines 1 specific space, Woodward Avenue in Detroit, Michigan, as if it were a folksonomic space.”

Valerie J. Vance

**Wireless insecurity: Examining user security behavior on public networks**


“Our goal was to directly investigate how well wireless users are securing their computers and the threat level associated with wireless networks .... Any successful security program requires strong policy, communication to all users, education about potential threats and vulnerabilities, and regular reinforcement of policy to maximize user awareness and compliance. A successful security model also requires proactive auditing to measure the level of compliance and network vulnerability, and achieve the desired level of organizational protection.”

Sherry Southard