1988 — SIGDOC runs the *Journal of Computer Documentation* from 1988-2002

2001 — ACM chairperson asks Robert Pierce to publish a quarterly informational newsletter for SIGDOC members, email format

2012 — *CDQ* is founded: Michael Albers and Liza Potts take over the newsletter, transition to stable online format and restart volume numbering, and peer review begins for research-based articles

2018 — *CDQ* begins its Online First model

Communication Design Quarterly (*CDQ*) is the journal-format, peer-reviewed publication managed by SIGDOC, the Association for Computing Machinery (ACM)'s Special Interest Group on Design of Communication. The email-only newsletter that would become CDQ published its first issue in March 2001, and since then, more than 17 volumes, each containing approximately 4 issues, have been published.

Prior to 2001, SIGDOC had a peer-reviewed journal entitled *Journal of Computer Documentation*, which continued from 1988 to 2002. When it became difficult to find contributors, the journal shut down. The chair of ACM at the time, Kathy Haramundanis, asked SIGDOC board member Robert Pierce to write a quarterly newsletter as a subscription service to SIGDOC members because he was in the technical communication industry rather than academia, and his views would offer valuable industry/academic crossovers.

The original purpose of Robert Pierce's newsletter was to give the members of SIGDOC something more than a website and yearly conference. Pierce wrote mostly from experience, and the newsletter was not peer-reviewed or research-based. Common topics included software development, user experiences, change management, content design, customer feedback, and information development and delivery.

In September 2012, Liza Potts and Michael Albers transitioned the newsletter to a more stable online format and volume numbering was restarted with Volume 1. It was given the name *Communication Design Quarterly* and began to solicit research-based papers and peer-reviewed articles. Because Liza Potts has a background in research on advocacy for women in the technical communication field, the publication took on a new objective in social justice and cultural awareness in technical communication.

In 2018, *CDQ* began its Online First publication model, allowing your work to become accessible in a more timely fashion. While *CDQ* retains its traditional focus on the ways we engage with, produce, and distribute information, we also welcome your work on accessibility, equality, social justice, and cultural awareness in communication design. If you would like to publish in *Communication Design Quarterly*, please contact Dr. Derek G. Ross at derek.ross@auburn.edu.

Communication Design Quarterly

Abstract Showcase

Featuring Work By

• Michael Meng • Stephanie Steinhardt • Andreas Schubert • Kristin Marie Bivens • Ryan Rogers • Laura Dunlow • Victor Del Hierro • Sherena Huntsman • Jared S. Colton • Christopher Phillips • Kevin Garrison • Laura Gonzales • Nadya Shalamova • Tammy Rice-Bailey • Katherine Wikoff • Teena A.M. Carnegie • Kate Crane • Amber Swope • Ann Hill Duin • Jason Chew Kit Tham • Benjamin Lauren • Anthony T. Atkins • Colleen A. Reilly • Jennifer C. Mallette • Megan Gehrke • Emma Rose • Alison Cardinal • Liz Hutter • Halcyon M. Lawrence • Katie Lynn Walkup • Heidi L. Everett • Daniel P. Richards • Luke Thominet • Cody Reimer • Samantha Cosgrove • Mary Clinkenbeard • Susan A. Youngblood • Dawn S. Opel • Lisa DeTora • Huiling Ding • Kirk St. Amant • Timothy R. Amidon • Elizabeth Williams • Tiffany Lipsey • Randy Callahan • Gary Nuckols • Spencer Rice • Lora Arduser • Krista Kennedy • Kristen R. Moore • Natasha Jones • Bailey S. Cundiff • Leah Heilig • Candice A. Welhausen • Joy Robinson • Candice Lanius • Ryan Weber • J.D. Applen • Sonia H. Stephens • Bill Williamson • Scott Kowalewski • Andrew Mara • Gustav Verhulsdonck • Joseph Bartolotta • Julianne Newmark • Tiffany Bourelle •

Communication Design Quarterly (*CDQ*) is the peer-reviewed research publication of the Association for Computing Machinery (ACM) Special Interest Group for Design of Communication (SIGDOC). *CDQ* is in the ACM Digital Library.

Communication Design Quarterly's new Online First model allows cutting-edge research to be published in a timely fashion. As articles are accepted, *CDQ* will publish an online-accessible version of the article, accompanied by an individual pdf and a DOI (digital object identifier), on the *CDQ* website.

SIGDOC — Special Interest Group for Design of Communication

acm — Association for Computing Machinery

Advancing Computing as a Science & Profession

scenarios and stakeholders that is based on the structure of atoms. The Atomic Model for Technical Communication provides a visual model for mapping projects and for framing the kind of dialog that we associate with a Rhetoric of Advocacy.

Framework Negotiation and UX Design
Andrew Mara

Framework negotiation is a mixed-methods research approach to help a UXD researchers uncover the relationship between cross-cultural identity and location. In this study, surveys initially located connections between conceptions of the self and symbolic pathways. Then, community-based research and usability testing verified root metaphors for website navigation. This mixed-methods research uncovered how Kenyans ported navigational strategies from other institutional settings. The article outlines the creation of the research instrument, describes how early data collection guided later data collection, and finally details how the methods uncovered user significance through metaphor.

Designing for Global Mobile: Considering User Experience Mapping with Infrastructure, Global Openness, Local User Contexts and Local Cultural Beliefs of Technology Use
Gustav Verhulsdonck

An important element for global design is an approach that can be used for international (e.g., non-US) users. Such a design approach has to factor in how the user's culture influences how they perceive a design while using their mobile devices across a different culture. As mobile use is expected to grow globally, more mobile interactions will require increasingly robust tools for measuring user experiences across different online and physical channels. This article focuses on how experience mapping, a common user experience (UX) design technique that tells stories about how a user experiences a design as a seamless whole across such channels, can help address global mobile design contexts. To further address such global contexts, this article proposes extending experience mapping by considering the factors of existing infrastructures, global openness to innovation, local user contexts, and local beliefs on the function of technology so that designers of communication can better conceptualize sequences of events of interactions across cultures.

Engaging with Online Design: Undergraduate User-Participants and the Practice-Level Struggles of Usability Learning
Joseph Bartolotta, Julianne Newmark, & Tiffany Bourelle

As usability research and user-centered design become more prevalent areas of study within technical and professional communication (TPC), it has become important to examine the best practices in designing courses and programs that help students better understand these concepts. This article reports on a case study about how usability research and user-centered design were introduced to TPC students. The article examines how students responded to and articulated new concepts and looks forward to ways TPC programs can develop comprehensive curricula that introduces students to these topics.

physical and mental health indicators. Arguably, such capabilities promote the notion that achieving and maintaining health is holistic, pushing back against the mind/body divide that has long characterized how we tend to perceive health and disease in Western cultures (see Segal, 2005). In this article, the author argues that the visual (photographs and data visual-izations) and language-based communication strategies used on Bellabeat Leaf's website, a smart jewelry device for women, employ a narrative of holisticism. Further, this narra-tive functions as a rhetorical trope that reinforces power relationships that align with a dominant underlying ideology of Western medicine—the notion that disease and illness can be controlled. The author proposes that future designs of the Leaf's smartphone application might allow users to visualize quantitative and select user-contributed qualita-tive, sensorial-based feedback to potentially provide a more balanced perspective of health.

The Past, the Present, and Futures of UX Empirical Research
Joy Robinson, Candice Lanius, & Ryan Weber

Rethinking UX requires mapping trends in empirical research to find out how the field has developed. This study addresses that need by analyzing over 400 academic empirical studies published between 2000–2016.Our research questions
13

are, "How have the artifacts, analysis, and methods of UX research changed since the year 2000?" and "Do scholars use research questions and hypotheses to ground their research in UX?" Our research found that services, websites, and imagined objects/proto-types were among the most frequently studied artifacts, while usability studies, surveys, and interviews were the most commonly used methods. We found a significant increase in quantitative and mixed methods studies since 2010. This study showed that only 1 out of every 5 publications employed research questions to guide inquiry. We hope that these findings help UX as a field more accurately and broadly conceive of its identity with clear standards for evaluating existing research and rethinking future research opportunities as a discipline.

Digital Humanities, Middleware, and User Experience Design for Public Health Applications
J.D. Applen & Sonia H. Stephens

Technical communicators should be conscious of how the algorithms that govern "middleware" (software that structures the presentation of data) constrain their ability to represent information. We use critical theory from the digital humanities to discuss how critical visual literacy allows designers to better present contextual information to enhance the user experience. We illustrate this approach with an example of medical

communication by using social network analysis software to demonstrate the spread of Ebola in Africa.

Cultivating Rhetoric of Advocacy for Usability Studies and User-Centered Design
Bill Williamson & Scott Kowalewski

In this article, we explore connections among rhetoric, usability studies, user-centered design, and civic engage-ment as core concepts for developing a systemically aware Rhetoric of Advocacy for technical communicators. We propose a model for visualizing

Author Spotlight
Joy Robinson

Joy Robinson is an Assistant Professor of Technical Writing and New Media in the English department at the University of Alabama, Huntsville. She teaches technical communication courses that emphasize profes-sional writing, and visual, information, and collaboration literacies. Influenced by her strong technical roots, her classes reflect a 21st-century reality that highlights design thinking strategies.

We want your contributions!

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Articles that cross disciplinary boundaries as they focus on effective and efficient methods of designing and communicating information.

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Short reviews of books you think may be of interest to the communication design field. Please query ahead of time before sending.

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We are also interested in proposals for guest editing special issues. As a guest editor, you would be responsible for providing three to five peer reviewed articles on a specific topic along with an article-length introduction to the issue's topic. You may propose special issue

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Format all manuscripts for publication consideration according to the following guidelines:

Abstract. 100 words

Keywords. 3–5 words that will help readers locate your article

Length. 6,000 to 8,000 words (not including "References" or Appendices). Individuals can submit slightly longer or slightly shorter manuscripts, but they should contact the CDQ editor before submitting such slightly longer or slightly shorter entries

Margins. 1" margins on all sides

Font. 11 or 12 pt. Times New Roman

Spacing. Single spaced; do not use tabs to indicate a new paragraph; instead, use a blank line between paragraphs.

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For more information on submissions of articles, reports, or research results, contact Derek G. Ross at derek.ross@auburn.edu.

For queries about book reviews, please contact E. Jonathan Arnett at jonathan.arnett@kennesaw.edu.

How Developers Use API Documentation: An Observation Study
Michael Meng, Stephanie Steinhardt, & Andreas Schubert

Application Programming Interfaces (APIs) play a crucial role in modern software engineering. However, learning to use a new API often is a challenge for developers. In order to support the learning process effectively, we need to understand how developers use documentation when starting to work with a new API. We report an exploratory study that observed developers while they solved programing tasks involving a simple API. The results reveal differences regarding developer activities and documentation usage that a successful design strategy for API documentation needs to accommodate. Several guidelines to optimize API documentation are discussed.

Reducing Harm by Designing Discourse and Digital Tools for Opioid Users' Contexts: The Chicago Recovery Alliance's Community-Based Context of Use and PowerdBy's Technology-Based Context of Use
Kristin Marie Bivens

The United States is struggling with an opioid overdose (OD) crisis. The opioid OD epidemic includes legally prescribed and illicitly acquired opioids. Regardless of if an opioid is legal, understanding users' contexts of use is essential to design effective methods for individuals to reverse opioid OD. In other words, if health information is not designed to be contextually relevant, the opioid OD health information will be unusable. To demonstrate these distinct healthcare design contexts, I extend Patient Experience Design (PXD) to include community-based and technology-based contexts of use by analyzing two case examples of the Chicago Recovery Alliance's and PwrdBy's attempts to in multiparty contexts. Current laboratory-based usability practices often cannot account for how technologies are used in multi-participant interactions outside of the

Impatient Patients: A DIY Usability Approach in Diabetes Wearable Technologies
Lora Arduser

As wearable medical technologies take on an increasingly prominent role in how health care is delivered, pressure to make the development process for such devices shorter increases. This case study will recount one attempt at a do-it-yourself (DIY) development process and collaborative usability testing. I argue that these efforts can complement traditional usability methods used in the development process of a wearable diabetes technology and provide more immediate access to technologies that can meet the diverse needs of end users. The case involves an open source DIY project developed by parents of children with type 1 diabetes in order to remotely monitor the blood sugar levels of their children.

Designing for Human-Machine Collaboration: Smart Hearing Aids as Wearable Technologies
Krista Kennedy

This study examines design aspects that shape human/machine collaboration between wearers of smart hearing aids and their networked aids. The Starkey Halo hearing aid and the TruLink iPhone app that facilitates real-time adjustments by the wearer offer a case study in designing for this sort of collaboration and for the wearer's

rhetorical management of disability disclosure in social contexts. Through close textual analysis of the company's promotional materials for patient and professional audiences as well as interface analysis and autoethnography, I examine the ways that close integration between the wearer, onboard algorithms and hardware, and geolocative telemetry shape everyday interactions in multiple hearing situations. Reliance on ubiquitous, familiar hardware such as smart phones and intuitive interface design can drive patient comfort and adoption rates of these complex technologies that influence cognitive health, social connectedness, and crucial information access.

Contested Sites of Health Risks: Using Wearable Technologies to Intervene in Racial Oppression
Kristen R. Moore, Natasha Jones, Bailey S. Cundiff, & Leah Heilig

Employing Royster and Kirsch's (2012) concept of critical imagination, the authors imagine strategies communication designers might use to intervene in and disrupt racial injustice and oppression. Using activity trackers as technologies that communicate data about health and death, the authors retell and re-envision the case of Eric Garner, a victim of police brutality, and argue that data from activity trackers can potentially be used to reframe narratives about public health and policing. Further, through an

Author Spotlight Nastasha Jones

Natasha Jones's research interests include activism, social justice, narrative, rhetoric in technical communication, technical communication pedagogy, and technical communication for engineers. She currently serves as the Vice President for the Association of Teachers of Technical Writing (ATTW) and the chair of the Council for Programs in Technical And Scientific Communication (CPTSC) Diversity Committee.

examination of the rhetorical frames of dehumanization, disbelief, and dissociation, the authors assert that activity trackers, as communicative agents, may become transformative wearable devices that are developed and deployed with socially just communication design in mind.

Quantifiable Me: Fitness and Health Trackers and the Trope of Holisticism
Candice A. Welhausen

As fitness trackers have proliferated, many now collect information about both

function of the site buried its educational purpose. From this analysis, designers of online public policy information will gain a better understanding of how to design as a part of a strategy to balance multiple, critical user roles and tasks.

Principles of Technical Communication and Design Can Enrich Writing Practice in Regulated Contexts
Lisa DeTora

Technical communication skirts the fringes of regulated biomedical research, which generally falls into the purview of specialized regulatory writers. However, a worldwide move toward increasing data transparency in regulatory contexts has resulted in a need for specialized documentation for lay audiences as well as added disclosure of investigational interpretations regarding the benefits and risks of new or experimental therapies. Experts in biomedical writing believe that these materials require additional attention to meet reader needs, an endeavor that falls well within the traditional bailiwick of technical communication. Technical communicators who understand information gathered in regulated biomedical research should be able to improve the general accessibility of this complex information for a general readership; however, knowledge of regulatory practices is a gap in this group.

Cross-Cultural Whistle-Blowing in an Emerging Outbreak: Revealing Health Risks through Tactic Communication and Rhetorical Hijacking
Huiling Ding

How do whistleblowers reveal critical issues unknown to the public during emerging epidemics to push for policy changes? Using a case study about a medical care worker (MCW) whistleblower in China during the SARS outbreak of 2003, this paper examines the ways whistleblowers navigate through complicated networks of power and mediascape to disseminate critical risk messages and call for changes

Reflexes, Reactions, and Usability: Examining How Prototypes of Place Can Enhance UXD Exercises
Kirk St. Amant

User expectations are often connected to context. This means the better UXD professionals understand connections between location and usability, the greater the chances they can create materials that meet expectations of usability in a particular place. The cognitive factors of prototypes and scripts can provide a foundation for investigating such factors. This entry examines how prototypes of place can help identify aspects of location that influence the usability of items in a space. In so doing, the entry also provides strategies for researching expectations of contexts and usability and using resulting data to guide design practices.

Sensors and Gizmos and Data, Oh My: Informing Firefighters' Personal Protective Equipment
Timothy R. Amidon, Elizabeth Williams, Tiffany Lipsey, Randy Callahan, Gary Nuckols, & Spencer Rice

This study identifies communication design challenges associated with firefighters' personal protective equipment (PPE), an assemblage of wearable technologies that shield these workers from occupational hazards. Considering two components of modern firefighting PPE through Zuboff's (1998) theorization of information technology, we offer an extended case study that illustrates how these wearables, as interfaces, automate or informate firefighters' practice of safety. Often lauded for their abilities to augment firefighters' work capacities and increase safety outcomes, our analysis revealed that these wearables engender practices that expose firefighters to unforeseen hazards and displace the "tacit craft skills and knowledge" that these workers mobilize to mitigate workplace risk (Spinuzzi, 2005, p. 164). Drawing from these insights, we sketch four points of tension that communication designers, system architects, and practitioners may utilize to consider the informating potential of smart-firefighting PPE equipped with physiological sensors.

laboratory. In this article, I review new materialist approaches to usability and consider how CA might be integrated into this theoretical decrease deaths by opioid OD. Next, I discuss implications of community-based and technology-based PXD within communities of

Author Spotlight
Victor Del Hierro

Victor Del Hierro is a Hip Hop, Technical Communication, and Cultural Rhetorics scholar. He is currently working on his first monograph titled *The DJ Is Precedent: Hip Hop, Community Building, and Technical Communication* where he argues for the Hip Hop DJ as an important model for technical communication that emphasizes inclusion, accessibility, and mediating communication across diverse communities and contexts. Dr. Del Hierro recently accepted a new position as an assistant professor of Digital Writing and Cultural Rhetorics and faculty researcher for the TRACE Initiative at the University of Florida.

opioid users, critiquing each method and suggesting four contexts of use-heuristic categories to consider when designing health communication information for users in these contexts.

DJs, Playlists, and Community: Imagining Communication Design through Hip Hop
Victor Del Hierro

This article argues for the inclusion of Hip Hop communities in technical communication research. Through Hip Hop, technical communicators can address the recent call for TPC work to expand the field through culturally sensitive and diverse studies that honor communities and their practices. Using a Hip Hop community in Houston as a case study, this article discusses the way DJs operate as technical communicators within their communities. Furthermore, Hip Hop DJs build complex relationships with communities to create localized and accessible content. As technical communicators, Hip Hop practitioners can teach us to create community-based communication design for more diverse contexts.

Testing the Difference Between Appearance and Ability Customization
Ryan Rogers & Laura Dunlow

Gaming literature largely treats customization as a monolithic concept. This article provides three experiments that test the differences between

appearance customization and ability customization. While these three studies provided a degree of replication, they examined between 105 and 147 college students in three different video game scenarios (no game play, non-human avatar, and difficult game). While the results varied slightly based on the scenario, evidence emerged that appearance customization was more likely than ability customization to enhance participant attitude toward the game and likelihood to spend money on the game. The findings of these studies should inform the types of customization used in a variety of domains and should provide guidance on the design process to offer simple and cost-effective methods to improve sales and attitudes toward content. Specifically, appearance customization is a more effective way for organizations to influence users.

Cultivating Virtuous Course Designers: Using Tecnical Communication to Reimagine Accessibility in Higher Education
Sherena Huntsman, Jared S. Colton, & Christopher Phillips

Technical communicators are often charged with creating access to meaning through technology. However, these practices can have marginalizing effects. This article argues for reimagining accessibility through virtue ethics. Rather than identifying accessibility as an

addition to document design or a set of guidelines, virtue ethics situates accessibility as a habitual practice, part of one's character. This article describes the application of virtue ethics in a university partnership, which sought to create a culture of accessibility through three goals: to consider accessibility as an on-going process, to consider accessibility as a "vital" part of all document design, and to recognize accessibility as a shared responsibility among stakeholders. Focusing on the virtues of courage and justice, we interpret data from a survey of instructors and then provide suggestions on how others can join the accessibility conversation.

Theorizing Lip Reading as Interface Design: The Gadfly of the Gaps
Kevin Garrison

This article explores what lip reading can teach us about interface design. First, I define lip reading. Second, I challenge the idea that people can "read" lips—an idea that is deeply imbedded in the literate tradition described by Walter Ong (1982) in *Orality and Literacy*. Third, I frame lip reading as a complex rhetorical activity of filling in the "gaps" of communication. Fourth, I present a lip reading heuristic that can challenge those of us in communication related fields to remember how the invisible "gaps" of communication are sometimes more important than the visible "interfaces." And finally, I conclude with some reflections about how lip reading might "reimagine" disability

studies for technical and professional communicators.

Designing for Intersectional, Interdependent Accessibility: A Case Study of Multilingual Technical Content Creation
Laura Gonzales

Drawing on narratives (Jones, 2016; Jones & Walton, 2018) from bilingual technicalcommunication projects, this article makes a case for the importance of considering language access and accessibility in crafting and sharing digital research. Connecting conversations in disability studies and language diversity, the author emphasizes how an interdependent (Price, 2011; Price & Kerchbaum, 2016), intersectional (Crenshaw, 1989; Medina & Haas, 2018) orientation to access through disability studies and translation can help technical communication researchers to design and disseminate digital research that is accessible to audiences from various linguistic backgrounds and who also identify with various dis/abilities

Evolving Skill Sets and Job Pathways of Technical Communicators
Nadya Shalamova, Tammy Rice-Bailey, & Katherine Wikoff

Recent research in technical communication (TC) indicates that the field has become more varied than ever in terms

of job titles, job skills, and levels of involvement in the design and production process. Here, we examine this diversity by detailing the results of a small-scale anonymous survey of individuals who are currently working as technical communicators (TCs). The purpose of our survey was to discover what job titles people who identify as TCs have held and the skills required of those positions. The study was conducted using the online survey platform Qualtrics. Survey results found that TCs occupy jobs and use skills that are often quite different from "traditional" TC careers. Results further support previous research that these roles and responsibilities continue to evolve. However, results also suggest that this evolution is more sweeping than previously realized— moving TCs away from not only the traditional technical writing role but also the "technical communicator" role as it has been understood for the past 20–25 years.

Responsive Curriculum Change: Going Beyond Occupation Demands
Teena A. M. Carnegie & Kate Crane

This experience report highlights one program's approach to curriculum revision as the program moved from being an emphasis within a literature degree to a B.A. degree in technical communication. The major curriculum was designed by researching state and regional needs for technical

Multimodal Conversation Analysis and Usability Studies: Exploring Human-Technology Interactions in Multiparty Contexts
Mary Clinkenbeard

This article examines conversation analysis (CA) as a methodology for usability research for technologies used in multiparty contexts. Current laboratory-based usability practices often cannot account for how technologies are used in multi-participant interactions outside of the laboratory. In this article, I review new materialist approaches to usability and consider how CA might be integrated into this theoretical perspective. To do so, I present an example transcript of CA and review CA research on telemedicine in multiparty environments. I use this approach to argue that incorporating CA into a new materialist approach can help usability researchers to reconfigure the technical design of and the sociomaterial practices surrounding technologies.

Site Identity, Artifact Duplication, & Disambiguation in Alabama Local Emergency Management Agencies (LEMA)
Susan A. Youngblood

Local Emergency Management Agencies (LEMAs) are vital components of the U.S. National Incident Management System (NIMS). As such, their official digital presences need to be identifiable as official and should not have

to compete with other digital artifacts, including web pages and whole sites, that can be mistaken for official presences. After exploring the nature of digital identity, this study examines the prevalence of competing digital artifacts and the common sources of these artifacts, such as legacy sites and hosted development sites. The study also explores ways some sites disambiguate between artifacts that represent their organizations versus those of similarly named organizations. The findings lead to several recommendations for best practices.

What is "Obamacare"?: Health Literacy, E-Commerce, and the Affordable Care Act's Online Content
Dawn S. Opel

This study audits and analyzes the online content provided by the U.S. government for The Patient Protection and Affordable Care Act (ACA). In order to both educate Americans about the ACA and enroll those who needed insurance into plans offered by the U.S. and/or state governments, policy analysts, communication designers, and web developers at the U.S. Department of Health and Human Services (HHS) and the Centers for Medicare and Medicaid Services (CMS) created and published a substantial array of online content. These policy statements, infographics, blog posts, videos, forms, and

*Author Spotlight
Dawn S. Opel*

Dawn S. Opel is Assistant Professor of Digital Media and User Experience in the Department of Writing, Rhetoric, and American Cultures in the College of Arts & Letters at Michigan State University. She also serves as Policy Fellow at the Center for Health and Research Transformation at the University of Michigan. A lawyer and community-engaged action researcher, Dawn partners with legal, healthcare, and nonprofit organizations to improve the coordination of care across sectors. Recent published work appears in *Literacy in Composition Studies, Computers and Composition: An International Journal,* and *Technical Communication*.

other resources were designed to engage the public and translate the complexities of the ACA into usable information for patients. However, a content audit and analysis of ACA-related online content reveals the ways that this content did not provide a navigational structure for patients newly insured (or already insured) to find them, as over time the e-commerce

consumer expectations, Web design teaching, industry best practices, and the shaping of universal values as they relate to the rhetoric of the Internet.

Not a Cape, but a Life Preserver: The Importance of Designer Localization in Interactive Sea Level Rise Viewers
Daniel P. Richards

Interactive sea level rise viewers (ISLRVs) are an increasingly popular risk communication technology designed to help users visualize the effects of water inundation on their region so as to facilitate more prudent decision-making. Designed by and for a variety of stakeholders, these viewers generally have as their goal affording users a more "localized" experience with climate change and sea level rise data, allowing users to explore as specific as street-level the effects of rising waters in coastal regions. While the rise of these tools mirrors the trend in risk communication scholarship towards more localized messaging, there is still more work to be done in terms of providing a more localized user experience for a broader public audience. This article presents the results of a user experience study conducted with 12 residents of a coastal region, the results of which formulate an attempt to develop more insight into techniques for designer localization. The article concludes with concrete recommendations for scholars and practitioners concerned with designing more effective interactive risk communication

technologies that respond to the public need for localized information for decision-making.

How to be Open: User Experience and Technical Communication in an Emerging Game Development Methodology
Luke Thominet

This study builds a model of open video game development, an emerging user-centered design practice where a developer publicly releases an incomplete game and iterate on it while gathering feedback from the player community. It argues that open development is fundamentally a communication and user experience practice characterized by a commitment to access, transparency, and feedback. Ultimately, it shows open development as a practice where game developers are consciously designing a compelling experience of participation in user research.

Contextual Cropping, Collateral Data: Screenshot Methods of UX Research
Cody Reimer

This article presents a novel method for data collection. It relies on a larger case study of the game League of Legends to forward the concepts of contextual cropping and collateral data. Contextual cropping gives researchers recommendations for gathering data with screenshots while respecting the in situ ecology of that data. Contextual cropping complements screenshot data with

contextual metadata and offers potential collateral data with which to further texture research.

Exploring Usability and User-Centered Design through Emergency Management Websites: Advocating Responsive Web Design
Samantha Cosgrove

This study explores the usability of the Department of Homeland Security and Emergency Management's (DHSEM) website, applying theories of user experience design (UXD) to emphasize the importance of responsive web design in practice. By rhetorically analyzing the usability of their websites, such as FEMA and Ready at the national and local level, DHSEM becomes a model for the needs of future research and application of user centered design principles. Responsive web design within emergency management websites should be considered when first evaluating usability and user experience design because of the real-life implications of these interactions. By reviewing basic design principles on emergency management websites, this article further showcases the capabilities responsive web design, usability and user centered design in digital spaces.

communication education in addition to using research already conducted and published in the field. Through an examination of the skills technical communicators needed to be successful in the workplace and how those skills transfer to other related occupations, we were able to build a successful major. The revised curriculum used an interdisciplinary approach to include courses in technical communication, visual design, and public relations. Further, this report discusses the iterative programmatic changes necessary to keep the major current. From alumni interviews and secondary research on changes in technical communication, we continue to reassess the skills students need. As a result our program continues to evolve to equip students with technical communication skills that apply to various, related occupations.

Information Architects: What They Do and How to Become One
Amber Swope

Every organization relies on information to communicate with prospects and customers —blog posts, articles, whitepapers, user manuals, web portals, videos, tweets, social media posts, moderated forums, and more. This means that many people are creating content and are delivering it in multiple ways. To meet our users' needs, we need information architecture (IA) to provide the framework for developing and delivering this information. Although most

content creators do not think of themselves as information architects, many of them perform tasks that are information architecture responsibilities. If you decide what information gets created and delivered, identify keywords to support findability, or organize the hierarchy for a table of contents, you are performing IA tasks. To learn who was performing these tasks and how they ended up with this role, I conducted a survey. This article presents my analysis of the results based upon my experience and relevant industry sources.

Cultivating Code Literacy: Course Redesign through Advisory Board Engagement
Ann Hill Duin & Jason Chew Kit Tham

This experience report shares the story of course redesign for cultivating technological and code literacy. This redesign came about as a result of listening to advisory board members as well as responding to recent scholarship calling for more specifics on the teaching of component content management and content strategy. We begin with discussion of code literacy differentiation between code-as-language, code-as-tool, and code-as-structure. We then share detail about our advisory board engagement and the resulting advanced-level technical communication course in which, framed by technological literacy narratives, students produce a static HTML site for a client, develop a repository for this work (GitHub), use XML and

the DITA standard for dynamic document delivery, and create a digital experience element to accompany the site. We document and analyze student narratives and online course discussions. We emphasize a more holistic approach to code literacy and that course redesign should be a collaborative endeavor with advisory board members and industry experts. Through these experiences, students gain requisite knowledge and practice so as to enter the technical communication community of practice.

Preparing Communication Design Students as Facilitators: A Primer for Rethinking Coursework in Project Management
Benjamin Lauren

Building from previous work by Lauren and Schreiber (2017) and research individually conducted by the author (Lauren, 2018), this brief teaching case provides a rationale for coursework in project management that draws from experiential learning to teach facilitation. The case begins by providing a research context for how communication designers are increasingly focused on practices of facilitation in their work, particularly in fast-paced, distributed work environments. The case presents two metaphors (gardening and cooking) for helping students think about facilitation techniques. Then, the article describes a project management course that emphasizes the importance of facilitation in

Author Spotlight
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Jason Chew Kit Tham is completing the Rhetoric and Scientific and Technical Communication PhD program at the University of Minnesota, Twin Cities. In February 2019, Jason defended his dissertation, which examines the intersections of emerging technologies and project/problem-based pedagogy through the lens of design thinking, multimodality, and maker culture. Jason will be an Assistant Professor of Technical Communication and Rhetoric at Texas Tech University starting Fall 2019.

classroom exercises and major assignments by developing skills in three foundational areas: improvisation, document design, and systems design. Each area is described with examples to help instructors of project management adapt or use similar approaches at their own unique institutional, programmatic, and classroom contexts. The article concludes with four suggestions, such as partnering with industry practitioners and arranging site visits to see project management in action. As well, the concluding suggestions explain recent iterations of the course's design.

Pedagogical Strategies for Integrating SEO into Technical Communication Curricula
Anthony T. Atkins & Colleen A. Reilly

Preparing students to understand and practice search engine optimization (SEO) teaches them writing skills, technological literacies, and theoretical background needed to pursue a successful technical communication career. SEO employs a multifaceted skill set, including an understanding of coding, skills in shaping and crafting effective user experience (UX), marketing skills, effective research strategies, and competence in accessibility. We argue that instruction in SEO in undergraduate and graduate programs in technical communication prepares graduates for the interdisciplinary and agile profession they seek to enter and enables them to be successful in positions from information architect to technical editor. Our article details how studying and enacting SEO helps students to develop proficiencies and knowledge central to technical communication pedagogies, including technological literacies, an understanding of the interconnections between human and non-human actors in digital spaces, and the ethical concerns central to work within those spaces. We then detail how SEO can be incorporated into technical communication curricula and share details of client-based projects that can facilitate that integration.

Theory to Practice: Negotiating Expertise for New Technical Communicators
Jennifer C. Mallette & Megan Gehrke

In technical communication, discussions on how to best prepare graduates to meet workplace challenges range from responding to changing technology and occupational needs to focusing on creating flexible workers. Part of this conversation centers on expertise: what kinds of expertise are most valued and how can graduates be trained to be experts? In this article, we explore our field's understandings of expertise by focusing on a recent master's graduate and practitioner, Megan. As first an intern then a full-time employee at HP Inc, Megan experienced clashes between the classroom and workplace, which she sought to reconcile. In addition, she also had to learn to assert herself as a subject matter expert (SME) while working alongside SMEs. This navigation was not something her education necessarily prepared her for, and when compared to surveyed graduates' experiences, may be something programs could emphasize. We conclude with recommendations for how academic programs can incorporate conversations about expertise and equip s students to assert themselves as communication SMEs and build on that expertise after graduation.

Participatory Video Methods in UX: Sharing Power with Users to Gain Insights into Everyday Life
Emma Rose & Alison Cardinal

As technologies proliferate into all aspects of daily life, UX practitioners have the ability and responsibility to engage in research to help organizations better understand people's needs. We argue that UX practitioners have an ethical commitment to deploy methods that consciously shift power to create a more equitable relationship between researcher and participants. This article offers participatory video as a method for UX practitioners that democratizes the design process and creates rich visual data. We detail two cases of participatory video

methods and how they were used to explore the potential of participatory methods in UX.

Promoting Inclusive and Accessible Design in Usability Testing: A Teaching Case with Users who are Deaf
Liz Hutter & Halcyon M. Lawrence

Drawing on an analysis of a usability teaching case with users who are deaf and who communicate using American Sign Language, we argue that there is a need for industry and the academy to refocus on more accessible testing practices, situated more decidedly within the social, cultural, and historical contexts of users. We offer guidelines for more inclusive practices for testing with users who are deaf prompting designers, developers, and students to think about systems of behavior, such as audism, cultural appropriation, and technological paternalism that undermine accessibility in their design and practices. More broadly, we propose ways in which instructors of technical communication can leverage usability tools and research methods to help students better understand their users for any artifact they design and create.

Connect with Your Patients, Not the Screen: Usability Claims in Electronic Health Records
Katie Lynn Walkup

This article examined the usability claims that Electronic Health Records (EHRs) make to healthcare providers. Usability claims appear as statements that persuade users to adopt the interface based on usability or user experience. These claims may show what healthcare providers are presumed to require from online health technologies. Usability claims in this study included intuitive interfaces, adaptability of documentation and records, and supplementing patient communication. Analyzing usability claims then becomes a way of understanding healthcare providers, their patients, and the technologies both use for health communication.

Is Good Enough Good Enough?: Negotiating Web User Value Judgments of Small Businesses Based on Poorly Designed Websites
Heidi L. Everett

This article explores whether amateur Web designs would deter Web users from engaging with a business after viewing a website—and if their expectations and value judgments are influenced by business size and scope. This topic is important to small business owners, practitioners, and educators because credibility judgments by Web visitors may be quick and detrimental to a small business if they do not yield a positive response and subsequent engagement with the small business. This study provides an opportunity to broaden our understanding of Web visitor credibility judgments about small businesses and introduces a new thread to the discussion about alignment of