



Program

SpeedTalks

ALPHABETIZED BY LAST NAME

Speed Writing

Art Berger (IBM - Technical Writer)

Speed writing is a way not only to meet a pressing deadline, but also to jumpstart your writing process for longer topics that feel so overwhelming, you don't know where to begin. Speed writing borrows ideas from creative disciplines such as art (free sketching) and creative writing (free form poetry, free writing, stream of consciousness writing). By the end of the talk, attendees will have written a usable piece of information by using speed writing principles.

Writing Backwards: Documenting the End-of-Life of a Product

Anni Bond (Red Hat - Technical Writer)

Writing documentation for new or existing products is a forward-thinking endeavor. They almost always use a template that includes new features and processes the user might use, patch notes, and text on the user interface itself. However, writing for the end of life of a product or service has different needs. Customers who relied on the product might even be hostile. How does a writer navigate these issues?

This talk will include the following topics: problems a writer may run into (e.g., migration processes, new processes after the loss of functionality, feature parity if migrating), the difference between total shut down and shut down with migration efforts involved, empathizing with the customer's position, and continuing your support as long as you can — getting QE and marketing involved!

Creating a Goal and Growth Mindset

Casey Van Camp (Mission 6 Zero - Chief Developmental Officer)

Today you may feel ready to take on the world; ready to solve every problem you, your team, your organization faces. You feel prepared for the future. The problem is, what you are prepared to solve today is not what needs to be solved tomorrow.

How do you solve tomorrow's problems? How do you become crucial to the success of the business? How do you develop the skills needed to answer the questions of tomorrow?

You develop your knowledge and skills through a "goal and growth mindset." A goal and growth mindset is a future focused adaptable model for training and development. This discussion will introduce the concepts of:

- Developing a goal and growth mindset
- Deepening and broadening knowledge
- Creating a personal adaptable development program
- Identifying crucial strengths and areas of development

- Learning, growing, adapting, and supporting others
- Fighting for success

A goal and growth mindset encourages individuals to never stop learning. It prepares people to adapt to new environments of need brought on by changes in business from customers or shifts in technology. This adaptation of skills into new areas is driven by a self-realized motivation to know and do more. A goal and growth mindset thrives when an individual cultivates a learning environment that encourages development with a goal of individual and business success.

Building Ethical AI for Job Seekers: Credential Gap Analysis and Job Recommendations Huiling Ding (NC State University - Associate Professor)

Much has been published about risks of technological unemployment caused by disruptive AI and automation. AI technologies enjoy many advantages over human labor – large scalability, computation capacity, strong ability to detect trends, and absence of human biases. These advantages make AI a better alternative to human labor in a wide range of occupations. Even in the service industry that requires intuitive and empathetic intelligence, AI has been identified as “a fundamental threat to human employment,” with service robotics taking over non-routine manual and cognitive work from their human counterparts.

We have been developing one of the first public-facing AI platforms that assists individual workers and small employers with upskilling and career changes in a labor market increasingly characterized by automation, technological disruption, and AI recruiting. Our tools will address key challenges faced by employees in manufacturing with credential gap diagnostics, and support for job search and retraining in AI recruiting. By exploring retraining resources, job search strategies in AI recruiting, and reemployment opportunities in related occupations requiring complementary skills, we aim to assist workers with upskilling and retraining while developing educational materials to help prepare young generations for future jobs.

Building Intelligent Content: Implementing Machine Learning Into Chatbot Design Kari Doyle (NC State University - Master’s Student)

This project, consisting of two phases, examined the design, development, and evaluation of chatbots before discussing lessons about user research, usability testing, machine learning implementation, and new competencies that have to be introduced to prepare technical communication students to work toward useful and usable automated content.

To teach conversational user interface, a Facebook messenger chatbot project geared towards prospective students of a graduate program in technical communication was designed using Chatfuel, a bot building platform. In Phase 1, intermediary deliverables to think through content reuse was organized and designed into Chatfuel using blocks of data to create an information architecture and conversational flow. For quality assurance, both usability testing and validation testing were performed iteratively to help improve the chatbot design.

Phase 1 of chatbot development determined a gap in conversational flow and lack of machine learning within the AI Rules feature of Chatfuel.

Phase 2 of chatbot development implemented Dialogflow, a more complex AI that uses machine learning. The Dialogflow AI Agent was trained with machine learning by adding a total of 90 Intents and a myriad of Training Phrases per intent. Additionally, JSON coding and JANIS API were added and synced to Chatfuel and Dialogflow, creating a greater network of technologies, which allowed the exchange of data between platforms. The effectiveness of the AI implementation was examined via usability testing of the updated chatbot platform. The results were analyzed and compared with a proximate usability study conducted with a similar chatbot that did not receive the AI implementation. The results of this comparative analysis provided the following improvements:

- +55% task success
- +35% ease of use

- +41% participant satisfaction
- +32% clarity and efficiency
- +41% helpfulness

The results from usability testing substantiate the successful implementation of complex AI via machine learning, which created a more accurate and intelligent chatbot, producing a closer aligned human interaction and positive user experience. Presentation attendees will learn about the process of implementing machine learning in chatbot design, as well as gain insight to the usability advantages of machine learning in this case.

Creating a Quality Management Plan (QMP)

Erin Friday (RTI International - Documentation Specialist)

A Quality Management Plan (QMP) helps guide the project team on how to execute quality management and quality assurance activities for a project. The purpose of the QMP is to describe how quality will be managed throughout the lifecycle of the project. Quality management planning determines quality policies and procedures relevant to the project for both project deliverables and project processes, defines who is responsible for what, and documents compliance.

In this SpeedTalk, I will cover how to create and manage a Quality Management Plan. The basic steps to creating a QMP include:

1. Develop a quality baseline using existing policies and procedures, client feedback, audit reports, etc.
2. Determine what your client wants using focus groups, surveys, the contract-mandated Quality Assurance Surveillance Plan, etc.
3. Identify weaknesses using the above information and update the QMP with improved quality processes.

The QMP is beneficial to the entire project team (not just the quality assurance team) and the client. Quality standards, processes, and monitoring methods can help improve project management, system development and maintenance, training, help desk, reports, and any other aspect of the project. The QMP sets expectations and ensures that quality is incorporated throughout the entire project.

Design Thinking for Technical Communication: Break your Technical Writer's Block with Design Thinking Strategies for a Streamlined Writing Process

Manasi Gandhi (IBM - Information Developer)

When was the last time you worked on a writing project on a completely new subject topic or technology? For me personally, it was yesterday, and repeats every day. How do you start from a clean slate, tackle your technical writer's block, and write for your user at the same time? Design thinking streamlines your writing process and helps you write user-centered content, think from the user's perspective, and address the user pain points. Solve your user's problems with personas, user studies, ideation, co-creation, prototyping, and iteration with this innovative approach. The design thinking process is highly relevant to the current and future technical communication scenarios from the industry and pedagogical point of view.

The Modern Editor's Toolkit

Laura Hinson (IBM - Content Editor and Back-end Developer)

As more companies take an automated, continuous delivery approach to develop software, what does that mean for the software's content? How can you maintain quality when your software or website is deploying on a daily basis? The rules of grammar and style might remain the same, but technical editors need a few new tools and skills to edit content in a continuous delivery approach. This SpeedTalk describes the most valuable items in the modern editor's toolkit:

- A secure but forgiving content management system
- An established style and word usage guide

- A ranked and visible backlog of work
- The user's view: A local build, a delivery pipeline, and a staging site
- A teachable spirit
- The ability to pivot

When Worlds Converge: Connections between Technical Communication and Fiction

Sarah Ishida (IBM - Software Developer)

What do technical communication and fiction have in common? More than you might think! The same skills and experiences you have as a technical communication professional can help you become a published fiction author. In this SpeedTalk, I walk through key aspects of the fiction publication process, including brainstorming, writing, editing, publishing, and marketing; and highlight skills that relate to technical communicators. I illustrate my ideas with examples from my own career as an information developer at IBM and as a professionally published children's book author. For example, technical communicators need to remain objective when receiving feedback about their documentation. Fiction writers also need to remain objective and avoid taking critiques about their work personally. Even though creative writing and technical documentation might seem like opposites at first, technical communicators are well on their way to entering the world of fiction. The idea for this SpeedTalk originated from the blog I wrote around the time my first fiction book was published:
<http://newsletter.stc-carolina.org/When+Worlds+Collide>.

“Pick Up My Health History On Your Way Out”: Elderly Patients’ Interventions Into Emergency Medical Documentation Design

Allegra W. Smith (Purdue University - Ph.D. Candidate; Assistant Director of Professional Writing)

This presentation describes the ways that residents of a retirement community are adapting medical writing principles for their own health and safety. These older adults (aged 70+) have composed comprehensive health histories and taped them to the inside of the front doors of their apartments — keeping this thorough and up-to-date medical information readily available in case of a home medical emergency, with the intention that emergency personnel will see the packet taped to the door when leaving their home, and simply pick it up on their way out. The information that they provide is more thorough than other forms of emergency medical documentation, such as a medical ID bracelet or wallet card, to account for the increasing numbers of conditions and comorbidities that accrue with old age: diabetes, heart conditions, back pain, cancer, COPD, osteoporosis and other bone conditions, depression, dementia, and more.

In the presentation, I provide an analysis of the communication design and technical writing features of a sample front-door health history document, examining one patient’s intervention into this typified genre of medical communication. I argue that, after recognizing a need for additional room for longer medical histories and lists of medications to account for the chronic conditions and comorbidities that come with old age, the residents of this retirement community are engaging in participatory patient design (Meloncon, 2017) to take a more active role in their own health care, by creating customized technical documentation. I conclude with recommendations for writing and design for this type of document, to stabilize its genre conventions and maximize its usability for patients and care providers alike.

Workshops

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A Strategic Guide to Succeeding in AI-Assisted Recruiting and Screening

Hunter Jones (NC State University - Research Assistant)

Yeqing Kong (NC State University - Ph. D. Candidate in CRDM)

Kelia Ray (NC State University - Research Assistant)

Jet Wang (NC State University - Research Assistant)

Chenxing Xie (NC State University - Research Assistant)

Artificial intelligence has profoundly changed how job screening works and how job applicants are evaluated by algorithms before being selected for manual evaluation. Though still new to the public, these AI technologies have been increasingly adopted by employers for cost deduction, efficient search, and quick turnaround time. Functioning as technological black boxes, these AI tools pose challenges to job applicants who still approach job search with the traditional resume and cover letter mindset.

Unaware of the many ways candidate screening has been transformed by AI, these applicants face formidable challenges in getting their resumes findable and scannable by AI, passing the first round of video interviews, or surviving the automated social profiling procedures. Considering the fact that 70% applicants will be automatically rejected by AI screeners, understanding of how AI tools screen resumes, interviews, and candidates, in general, will not only help transform how professional and technical communication programs teach employment projects, i.e., resumes and cover letters, but more important empower job applicants who are under increasing pressure to outperform accelerating technological changes to provide financial stability for their families. We are excited to present our findings on the subject of AI-assisted recruitment tools, technologies, and strategies.

Enabling Communication for Documentation Teams

Raghuram Pandurangan (Causeway Technologies - Documentation Chapter Lead)

Documentation teams in companies are facing challenges with communication within the team or product team stakeholders. Most of the miscommunication is leading to reduced productivity, conflict of interest or loss of resources such as time or the employee. It is important for the team members, leads and managers to overcome such challenges. The following challenges in a documentation team can be resolved using these proven tools and techniques:

- Conflict of interest
- Loss of harmony
- Miscommunication with clients or product team stakeholders (during sprint planning)
- Committing more work due to insufficient preparations
- Escalations due to internal conflicts

This session will explain the common scenarios and then explain the tools or techniques to overcome these challenges. All these tools or techniques are based on Neuro-Linguistic Programming (NLP) and used worldwide.

Documentation as Videos: Using a DITA-Centric Approach to Produce Effective Video Content

Sreeranjani Pattabiraman (Extreme Networks - Sr. Technical Writer)

It is not new for technical communicators to don various hats at the workplace. Growing demands to keep up with the ever-changing technology, and staying relevant in producing futuristic content has always been an unsaid part of the job. Technical communicators are not often seen as video producers. However, in recent times, there has been a perpetual need for technical communicators to produce video content as part of technical documentation.

The realm of documentation videos, although vastly different from traditional documentation delivery medium, poses similar challenges to the writer when writing and developing content. When technical communicators produce videos, they need to apply the right strategies to pick the right content for the type of video they plan on producing. One such strategy is to apply Darwin Information Type Architecture (DITA) principles to video content production. The core principles of DITA help to maintain a uniform architecture and to standardize content. The DITA-centric approach to video content is especially insightful to students and technical communicators who are new to producing video content.

In my presentation, I will share how using and applying DITA principles help technical communicators to identify topics for creating video content, while addressing the need for information typing, structured

content for videos, minimalism, and opportunities for reuse. Through my presentation, I will address how the identities of technical communicators are evolving at the workplace as video producers, and how knowing video-creation techniques will impact their skills to their benefit.

MSTC Capstone Information Session & Brainstorm

Stacey Pigg (NC State University - Associate Professor)

This workshop will walk MSTC students through useful information for planning ahead toward completing their capstone projects. We will begin with advice from people who have recently completed the capstone, continue with an information session for helping students understand what makes a good capstone project, and follow up with tips for how to get started on a project literature review before the start of your second year in MSTC. The remainder of the workshop will be open for attendees to ask questions about the capstone project and/or to brainstorm about possible project ideas. The target audience for this workshop is students in the first year of the MSTC program; however, we welcome industry and other academic participants who want to learn more about how the capstone project works or who may have project ideas to pitch to students.

Making Sense of What People Say: Processing and Coding of User Feedback for Systematic Analysis

Jason Swarts (NC State University - Professor)

This workshop offers attendees experience in processing and coding streams of verbal data to support systematic, quantitative and qualitative analysis of the content and form of those verbal data streams. Application of these techniques will allow us to supplement the rich nuance of a close textual analysis of data with a quantification of the patterns those data exhibit.

The workshop will begin with a definition and overview of analytic assumptions about verbal data streams. We encounter verbal data as streams of discourse that we experience as a flow of words that take on meaning due to the order or structure of their presentation (i.e., a conversation or the question/answer format of an interview). In technical communication contexts we might encounter these streams as interview data, focus group data, transcripts of usability sessions, or other formats that are more structured, like feedback forms. Analysis of temporal and aggregate patterns in these streams of verbal data can tell us something that close, isolated analysis of texts might miss.

Participants will get hands on training with data segmentation and will come to understand how the ways that we divide and aggregate verbal data for analysis can reveal different things to us. Sample data will be provided for participants to practice segmentation and to understand the technical and conceptual difficulties that arise.

With segmented data in hand (also provided), the participants will then learn about code writing, code development, and code application for the systematic labeling of verbal data with trackable and quantifiable data labels, from which the analyst can intuit meaningful patterns.

Rudimentary knowledge of functions in Microsoft Excel (or Google Sheets) is recommended, but not required.

How to Approach UX Research Projects

Laura Sweltz (Viget - UX Research Director)

UX research has emerged as a critical part of building and maintaining successful products and services. By understanding the needs and behaviors of users, technical communication professionals can help the companies and organizations they work for evolve their offerings appropriately. Establishing a UX research practice can feel daunting. How do you figure out what you need to learn? What methods should you use? How do you work within tight timelines and small budgets? This workshop will provide an overview of common methodologies used by UX researchers and guidance on how to define an approach for UX research work. Participants will walk away with a better understanding of the UX research field,

along with an actionable framework to help them define an approach for their next project.

System Design the Easy Way

Walter Turner (NC State University - IT Analyst/Programmer II)

This workshop will involve writing a system design in a manner that guarantees success. We will discuss the elements to be covered in a good system design, the relationship between requirements and design, cybersecurity, database design, user interface design, output, the various stakeholders and how to write for them and how to “eat the elephant.”

Panel

Professional Insights from IBM

Jacob Berger (IBM - Content Developer)

Sujeily Fonseca (IBM - Developer Experience Software Engineer)

David Gay (IBM - Software Engineer)

Naveen Krishnamurthy (IBM - Test Automation Engineer)

This panel consists of four young professionals who work at IBM in Raleigh-Durham: Jacob Berger, Sujeily Fonseca, David Gay, and Naveen Krishnamurthy. Panelists have backgrounds in English, electrical and computer engineering, and computer science. They currently work in content development (technical writing) and automation testing development. In their talk, panelists will share their experience transitioning to and working at IBM, collaboration with and expectations for technical writers, and IBM's open-source product, Eclipse Codewind. In addition to providing professional insights, the panelists will discuss the characteristics of open-source products and documentation, as exemplified in Eclipse Codewind. Attendees are encouraged to ask questions, since the majority of this panel will be the speakers giving advice.