ENGL 549

Multimedia and Interaction Design

Seminar examining rhetorical principles of interactive multimedia design, such as those in streaming multimedia. Practical understanding of computer applications used in interactive multimedia development. Focus on theoretical and practical elements of producing multimedia training in both education and industry. Work with interactive hypertext, digital audio, and nonlinear video editing.



WELCOME

My Favorite Class to Teach My name is <u>Geoff Sauer</u>.

Welcome to one of my very favorite grad seminars.

This is because multimedia are the most effective way to reach large audiences and can inspire more engaged attention than written documents, in many cases.



Equipment You'll Need

You will need some equipment for this course. I hope you have much of this already.



We Also Need to Explain Your Computer

I bet you'll have used some of these. They're omnipresent. But we'll be learning these this semester in depth.



Some Multimedia Apps We'll Study

I bet you'll have used some of these. They're omnipresent. But we'll be learning these this semester in depth.



Multimedia (Video) Editing Workflow

There are four stages to online video production. I'll need to see at least three, to evaluate your work.



smartphones / webcams camcorders screen captures online video sources Davinci Resolve or Studio Adobe Premiere Pro or Rush Apple Final Cut Pro X AVID Media Composer iMovie or Windows Movie Maker

YouTube or Vimeo WordPress LMSes Self-Hosted Websites PeerTube or Plex











Analog Audio			Digital Audio			Data				
3.5mm to 3.5mm	3.5mm to stereo RCA	stereo RCA to stereo RCA	Lightning to 3.5mm	TOSlink to TOSlink	S/PDIF to TOSlink	MIDI to USB 2.0		FireWire 400 A to B (400mb/s)	FireWire 400 A to A (400mb/s)	USB 1.0 A to B (12mb/s)
XLR to XLR	XLR to 7mm (1/4")	XLR to 3.5mm (1/8")	USB to 3.5mm	USB 2.0 to 3.5mm	HDMI to HDMI	USB 2.0 Mic		FireWire 800 A to B (400mb/s)	FireWire 800 A to A (800mb/s)	USB 2.0 A to B (480mb/s)
	Digita	l Video			Analog Video			USB 2.0 C to C (480mb/s)	USB 3.0 A to A (5gb/s)	USB 3.0 A to B (5gb/s)
HDMI to HDMI	HDMI to DisplayPort	HDMI to DVI-D	USB-C to HDMI	RCA to RCA (480i)	VGA to RCA (480i)	VGA to S- video (480p)		USB 2.0 A to mini-USB	USB 2.0 A to micro-USB	USB 3.0 C to C (5gbb/s)
USB-C to VGA	USB-C to DisplayPort	USB-C to DVI	Lightning to HDMI	USB-C to VGA (1080i)	DVI-A to VGA (1080i)	Component Video (1080i)		USB 3.0 to eSATA (5 gb/s)	USB 3.2 2x1 C to C (10mb/s)	USB 3.2 2x2 C to C (20gb/s)
Mini DisplayPort to HDMI	Mini DisplayPort to DisplayPort	Mini HDMI to HDMI	S-video to S-video	VGA to VGA (1080i)	mini DP to VGA (1080i)	VGA to Component (1080i)		TB 2 miniDP to miniDP (20gb/s)	TB 3 C to C (20gb/s)	TB 4 C to C (40gb/s)









This Semester's Assignments

About Each of Us

A short video introducing yourself, appropriate for a professional portfolio.

Assessment/Evaluation

A short video analyzing and discussing a work of professional multimedia, captured and edited.

Interview

A 5-10 minute video interview with an expert in a field. (It can be any field.)

Midterm Exam

An in-class exam answering questions about multimodal equipment and theory.

Hardware/Software Overview

A video introduction to equipment or software, created for lay audiences.

Interactive Media

Add interactivity to one of your video projects, using web interaction design best practices.

Final Project

A collaborative long-duration video, appropriate for professional audiences.

1: About Each of Us

Behind every document/system are its audiences. Analyzing their needs is always step one.



Users In-Person and Online

We'll learn to use

JMP

SPSS

Matomo

Google Analytics

About Audience Analysis

Qualitative and Quantitative Methods

Every digital document is created to serve an audience. In the first part of the term, we'll learn about analyzing these audiences, their desires, goals and needs.

We'll learn the difference between opinions and datadriven analysis of users. We'll look at dominant methodlogies used in the field to improve the usability and UX of documents we create.



2: Assessment/Evaluation of Multimedia Works

Assessing the usability/utility/user experience of actual documents is invaluable.



Testing Software packages

Camtasia Elgato SnagIt QuickTime WebEx Zoom Microsoft Teams SPSS JMP

About Usability Testing

Testing both qualitatively and quantitatively

Usability testing refers to evaluating a product or service by testing it with representative users.

Typically, during a test, participants will try to complete typical tasks while observers watch, listen and takes notes. The goal is to identify any usability problems, collect qualitative and quantitative data, and determine the participant's satisfaction with the product.

Skills			
Software			
Equipment			
Planning			
Design/Editing			

3. Interview

We'll learn how to improve the usability and user experience of actual documents for real audiences.



Browsers WordPress et al.

This semester we'll install dozens of CMSes, so we can practice configuring and administering them for specific purposes.

About Redesign

We'll redesign actual documents

Most modern digital documents have usability or accessibility issues. The field is simply so new, and so expensive to implement completely, that many systems need improvement.

This semester, we'll take actual documents, analyze their intended audiences, analyze their usability, then redesign them to improve how well they work for real users.

Skills			
Software			
Equipment			
Planning			
Design/Editing			

4. Mid-Term Exam

Exams are no fun. Sometimes they're helpful for understanding everything you've learned so far, though.



About User Experience

We'll take CMSes, and make them great.

Usability testing refers to evaluating a product or service by testing it with representative users.

We usability test everything. Especially our own designs.

Testing Software packages Camtasia

> Elgato SnagIt QuickTime WebEx Zoom Microsoft Teams SPSS

> > JMP

Software	
Equipment	
Planning	
Design/Editing	

Skills

5. Hardware/Software Overview (Training)

Once the CMS has content, you then create a high-quality user experience.



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Equipment		
Planning		
Design/Editing		

Skills

Software

6. Interactive Multimedia (Web-Based)

Once the CMS has content, you then create a high-quality user experience.



Testing Software packages

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Software		
Equipment		
Planning		
Design/Editing		

Skills

7. Final Project (Collaborative)

Once the CMS has content, you then create a high-quality user experience.



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Equipment		
Planning		
Design/Editing		

Skills

Software

Our Class Server (https://snm.engl.iastate.edu/549)

We have a (campus only) server dedicated to this class, which can host our projects. You'll learn it this semester.

× + Geoffrey Sauer: Curriculum Vitee 🗙 👌 eserver, fiction → C 🏠 🕕 file:///Jsers/gsauer/NextCloud/annual reviews/Sauer 2018 Annual Review/cv/resume 🚥 🗇 🗘 🔍 machine → 👱 🌆 🖽 🛔 . Director, 2001-🖞 Most Visited 🚦 ISU 🔮 Mail - gezuer@lesta. 🎬 MacStrategy | Articl. 🛐 Piez 🔾 Dauhtourd 💭 314H 🔿 350 🔮 A Complete Guide 1. 🛱 CFP | Cwcon 2019 🔵 neodom
 Built and supervised an a for technical, scientific, and professional commun gsauer@lastate.edu (work) English Department, Iowa State University <hr /> **Geoffrey F.K. Sauer** 203 Ross Hall, Ames, IA 50011-1201 USA 500.000 visitors (4 mi per month <8 **Publications Forthcoming Professional Appointments** href="https://web.archive.org/web/20170606083401/1 feminism.eserver.org/">Feminism and Women's Studie Sauer, David and Geoffrey Sauer. "Chapter 19: Drama." In An Associate Professor, Iowa State University Department of English, 2010-Webmaster, 1994-Scholarship: 2017. Gary Schamhorst, ed. Duke University Assistant Professor, Iowa State University Department of English, 2003-10 forthcoming. chr /> Worked with colleagues at Assistant Professor, University of Washington-Seattle Department of **Publications Currently in Review** Mellon University Women's Center to develop a col Technical Communication, 2000-03 online resources in feminism and women's studies. Sauer, Geoffrey, "Teaching Technical Communication to the L Postdoctoral Fellow, Carnegie Mellon University English Department, Article under consideration at a peer-reviewed scholarly jo
> 1998-2000 68,000 visitors (815,0 technical communication. month Education Sauer, Geoffrey and Samantha Cosgrove. "Writing Interfaces: consideration at a peer-reviewed scholarly journal in technology Ph.D. in English, Carnegle Mellon University, 1998 h communication 8 A. in English with an Honors Diploma, University of Notre Dame, 1990 href="http://fiction.eserver.org/">Fiction. **Publications In Print** Webmaster, 1994-Fields of Interest Sauer, Geoffrey. "Applying Usability and User Experience: Wi
 · Intellectual property in the history of publishing Remains Slow," Technical Communication Quarterly 27:3. 100.000 visitors (1.6) 2018. per month · Media studies, with expertise in Internet studies · Rhetorical theory, especially the multimodal persuasive description of Sauer, David and Geoffrey Sauer, "Chapter 18: Drama," In An technical issues Literary Scholarship: 2016. David Nordloh, ed. Duke Univ 2018. pp. 339-358. · Technical communication, with a special interest in computer supported collaborative work and emerging publishing technologies Sauer, David and Geoffrey Sauer. "Chapter 19: Drama." In Art Recents · Usability, accessibility, user-centered design, user experience design and Uterary Scholarship: 2015. Gary Schamhorst, ed. Duke Un 2017, pp. 371-392. interaction design III Desktor NextClos · Digital humanities, including both digitized and born-digital materials Sauer, Geoffrey. "Multimedia Labs as Content Incubators." Int · Performance studies, particularly of literary, film, or new media works O Downlos September/October 2011. · Critical theory and cultural studies () Creative Sauer, Geoffrey. "Teaching Partnerships Explored: Designing C 19 Deceme Networked Learning Environments." A review of Designing AirDrop Networked Learning Environments by Doreen Starke-Me Melanie Wilson (eds.) Programmatic Perspectives. April 21 Sauer, Geoffrey. "Assessing Distance Programs in Technical Co in Proceedings of the 2004 CPTSC Annual Conference. Sauer, Geoffrey. "Theorizing the Borders of Academic Technic Communication" in Proceedings of the 2003 CPTSC Annu D Hatwork Haselkorn, Mark P., Geoffrey Sauer, Jennifer Turns, Deborah I Michio Tsutsui, Carolyn Plumb and Tom Williams. *Expan · Red of Technical Communication: Examples from the Departm Orange Technical Communication at the University of Washingto Technical Communication, May 2003

So. Get ready!

This is exciting material, but it's complex.

There's a lot of reading, plenty of hands-on editing work, and quite a bit of learning to understand how to use these technologies.

But if you put in the time, I feel strongly what you learn will be useful. I've taught this course at ISU since 2003, and my former students have gone on to teach this subject and use it in a wide range of workplaces.