ENGL 549
Multimedia and Interaction Design

Spring 2023 — Geoffrey Sauer

This semester we're going to study multimedia production, including interactive multimedia, as they are used in workplace, technical, and professional purposes.

We will study the rhetorical principles which underlie contemporary interactive multimedia design, such as those in Blu-Ray discs, responsive web content, streaming multimedia, and augmented/virtual reality. We will look at training and teaching which use these new media. We will learn to produce several forms of multimedia, and learn techniques for evaluating the quality of multimedia in workplace (and educational) contexts.

This semester, we will read to strengthen each student's practical understanding of the computer systems and applications which make interactive multimedia development possible. We will focus on theoretical and practical elements of producing multimedia training in both education and industry. Class assignments this term will involve work with interactive hypertext, digital audio, and nonlinear video editing.

Course Policies

Learning Objectives

Through readings, lectures, discussions, and assignments, you will learn to:

- analyze audiences when creating/editing multimedia.
- demonstrate understanding and application of theories, research methods, and concepts in multimedia production, editing, and distribution.
- use a variety of technologies and media for designing and implementing effective, audience-centered multimodal communication.
- analyze and critique communication using dominant methods of multimodal research.
- create usable navigation and interactive user experience;
- learn the basics of design as they relate to multimedia.
- learn how markup languages, style sheets, and client-side scripting render multimedia within web pages, ebooks, and mobile apps.

Texts & Materials

You will not need to purchase a textbook for this course. All the materials will be provided on the course website.

Required Technology

You are required to have and use the following:

- A reliable internet connection.
- Access to Iowa State University computer system and Canvas.
- An Iowa State University email address (Outlook email). Please use this email account as opposed to your personal email account.
- Commitment to learn how to use any software provided and/or required by the course.

Canvas and Email Communication

This class is assisted by the Canvas learning management system. Make sure to check Canvas and your Outlook account regularly. Your instructor will make available to you the course syllabus, class materials, grades, and other resources as needed. Your instructor will also use Canvas to communicate with the entire class or with individuals, when necessary.

Grading Policies

Your assignments will be assessed in five major categories: context, content, organization, style, and delivery. For some assignments, these categories are further delineated into specific expectations in the evaluative rubrics for each assignment.

Late Work Policy

Major assignments will be penalized 1 letter grade for each day they are submitted late (including weekends). Make sure to keep careful track of submission deadlines for all of your work in this class.

Grading Criteria

All projects will be assigned a letter grade according to the following criteria:

A	**Exemplary Accomplishment.** Shows excellent analysis of the assignment and provides an imaginative and original response. Successfully adapts to the audience, context, and purpose of the assignment. Contains very few mechanical errors and requires little or no revision. The piece is ready to be presented to the intended audience.

B	**Mature Work.** Shows judgment and tact in the presentation of material and responds appropriately to the requirements of the assignment. Has an interesting, precise, and clear style. Contains minor mechanical errors and requires revision before the assignment could be sent to the intended audience.
C	**Competent.** Meets most of the basic criteria of the assignment and provides a satisfactory response to the rhetorical situation. There is nothing remarkably good or bad about the work, and equivalent work could be sent out in the professional world following revisions to the organization, substance, or style of the assignment.
D	**Developing.** Responds to the assignment but contains significant defects in one of the major areas (context, content, organization, style, or delivery). The assignment could not be presented to the intended audience without significant revision.
F	**Formative.** Provides an inadequate response to the assignment and/or shows a misunderstanding of the rhetorical situation. Contains glaring defects in one or more of the major areas (context, substance, organization, style, or delivery). The project could not be presented to the intended audience without intensive revision or completely starting over.

Grading Schema

Percentages are not rounded. You will have ample opportunities to bolster your grade through weekly assignments. Therefore, when you have earned 89.75 percent of the points possible, your course grade will be a B+, not an A-.

Letter Grade	Percentage Range	Final Grade Total Points
A	93 to 100%	930 - 1000 pts
A-	90 to 92.99%	900 - 929.99 pts
B+	87 to 89.99%	870 - 899.99 pts
B	83 to 86.99%	830 - 869.99 pts
B-	80 to 82.99%	800 - 829.99 pts

C+	77 to 79.99%	770 - 799.99 pts
C	73 to 76.99%	730 - 769.99 pts
C-	70 to 72.99%	700 - 729.99 pts
D+	67 to 69.99%	670 - 699.99 pts
D	63 to 66.99%	630 - 669.99 pts
D-	60 to 62.99%	600 - 629.99 pts
F	0 to 59%	0 to 599 pts

Attendance Policy

Excessive absences damage your grade and create the probability that you will need to drop the course. Much of what occurs in graduate courses cannot be rescheduled, made up, or accepted late—regardless of the reason for missing class. To ensure that you stay on schedule individually and as a team-project member, your instructor will enforce these policies:

- Missing more than two classes will lower your grade, and excessive absences (three weeks of classes) will result in a failing grade for the course.
- If you are more than 15 minutes late to class, you will be counted absent.
- If you have medical condition that will affect your attendance, you must speak to Student Accessibility Services (SAS) at the beginning of the semester to officially request an accommodation; however, we cannot approve an indefinite number of absences or late arrivals. We will work with SAS to arrive at an accommodation that allows you to be successful without altering the basic requirements of the class.
- **Do not schedule travel that requires you to leave campus early for fall break or for semester break**, as leaving early could conflict with your class or your final-exam session. Your instructor cannot make individual arrangements for you.

Expectations for Conduct

Students in English 549 are expected to exercise professionalism when working individually and with teams, and when communicating with classmates and the instructor. You should adhere to the following best practices:

- **Show respect for others:** In agreement with ISU's policies on student conduct, you are to carry yourself with respect for others and in ways conducive to maintaining a positive learning environment. For further details, see ISU's policies on student conductLinks to an external site.. Examples of disruptive conduct may include, but are not limited to, the following:
- speaking without being recognized, interrupting, or talking over others
- arrival to class late or leaving early without instructor permission
- the use of technology such as cell phones, computers, or other devices, without instructor permission, particularly in uses unrelated to course content

- creation of loud or distracting noises either carelessly or with intent to disrupt
- eating, sleeping, or carrying out other personal activities in class that are unrelated to course content without instructor permission
- **Exercise netiquette:** When participating in online communication, you are expected to exercise "netiquette." You can find a definition of netiquette and ISU's policies regarding netiquette hereLinks to an external site..
- **Participate meaningfully:** Participation means being present mentally as well as physically. Specific expectations include:
- thoughtfully contributing to class discussions
- responding to your instructor's or teammates' communications in a timely manner
- preparing for team meetings and actively engaging in team discussions
- carefully completing workshop assignments
- **Send complete email messages:** When emailing your instructor or classmates, you should always provide a subject line, a statement of the email's purpose, a specific request, your name, and any other content your audience needs. Do not treat emails like informal text messages.
- **Follow directions:** Directions are there for a reason, whether they come from instructor emails or announcements, instructions for submitting work, or assignment prompts. Ignoring directions, even small ones, can signal that you don't take your work seriously, and that will be reflected in your grade.
- **Proofread your work:** Proofread everything, including emails. Word-processing programs have built-in spelling and grammar checkers. Use them. Then check your work for mistakes the software program didn't catch.
- **If you fall behind, catch up:** When you must miss a team discussion, actively seek out what you've missed. Ask your peers or email your instructor and ask, "What can I do to catch up?" or something similar. This question shows awareness of the time instructors spend creating and facilitating useful class activities, lectures, and discussions.
- **Be an effective team member:** Members of work teams should be prepared, reliable, enthusiastic, helpful, open-minded, and supportive. You should resolve conflicts with tact. Every group member should participate and complete peer evaluations honestly.

Department Policies

Reporting Grievances

If you become concerned about your instructor's class management, please communicate your concerns with your instructor. Concerns sometimes relate to grading methods, paper turnaround time, and course policies, as examples. If you feel uncomfortable speaking with your instructor, contact the Director of Advanced Communication, Dr. Jenny Aune (jeaune@iastate.edu), or the Assistant Director of Advanced Communication, Dr. Casey White (cdwhite@iastate.edu).

Appealing Your Final Grade

If you feel that your final grade does not reflect the quality of the work you produced throughout the semester, please first discuss the issue with your instructor. If, after talking with your instructor, you still feel that your grade does not reflect the quality of your work, you can file a grade appeal with Deanna Stumbo (229 Ross Hall). For a grade appeal, you will need to submit the following materials:

- A memo explaining why your final grade does not reflect the quality of work you produced
- All the work you completed during the semester (including major assignments and weekly assignments like discussions and workshops)
- The course policies with grade breakdown
- The assignment sheets

A panel of instructors will review your materials blindly and assign a grade based on the quality of the work. If the grade the panel assigns is higher than the grade you received, your grade will be changed accordingly. If, however, the grade the panel assigns is lower than the grade you received, your grade will remain the same.

University Policies

Validating Enrollment

To validate your enrollment in each course, you **must attend either the first or second class period**. If you add a course after the term begins, you must attend the next class period. **If you do not validate your enrollment, you must drop the course, or you will receive an F grade**. You can read the full ISU policy on enrollment validation hereLinks to an external site..

Academic Misconduct

All acts of dishonesty in any work constitute academic misconduct. Online courses are not an exception. The Student Disciplinary Regulations. will be followed in the event of academic misconduct. Depending on the act, a student could received an F grade on the test/assignment, an F grade for the course, and could be suspended or expelled from the university. Academic misconduct includes all acts of dishonesty in any academically related matter and any knowing attempt to help another student commit an act of academic dishonesty. Academic dishonesty includes, but is not limited to each of the following acts when performed in any type of academic or academically related matter, exercise, or activity:

- **Plagiarism:** Plagiarism is the act of representing directly or indirectly another person's work as your own. It can involve presenting someone's speech, wholly or partially, as your own; quoting without acknowledging the true source of the quoted material; copying and handing in another person's work with your name on it; and similar infractions. Even indirect quotation, paraphrasing, etc., can be considered plagiarism unless sources are properly cited. Plagiarism will not be tolerated, and students could receive an F grade on the test/assignment or an F grade for the course.
- **Obtaining Unauthorized Information:** Unauthorized information is information that is obtained dishonestly, for example, by copying graded homework assignments from another student, by working with another student on a test or homework when not specifically permitted to do so, or by looking at your notes or other written work during an examination when not specifically permitted to do so.
- **Tendering of Information:** Students may not give or sell their work to another person who plans to submit it as his or her own work. This includes giving their work to another student to be copied, giving someone answers to exam questions during the exam, taking an exam and discussing its contents with students who will be taking the same exam, or giving or selling a term paper to another student. Be aware that posting course

content to public sites such as Quizlet, Course Hero, etc. is an action that constitutes a variety of Student Conduct Code Violations, such as:

- #4.2.1 Academic Misconduct (tendering of information)
- #4.2.24 Misuse of Technology Resources (also a violation of IT's Acceptable Use policy)
- #4.2.25 Unauthorized Sale of Others' Intellectual Works (posting any course material to a public site that asks for subscriptions is a violation)

Religious Accommodation

Please address any religious accommodations or potential conflicts on the basis of closely held religious beliefs with me at the beginning of the semester, or at the earliest possible time. It is advisable to address any potential conflicts as early as possible to allow time to consider alternatives. You or I may seek further guidance from the Office of Equal Opportunity.

Accessibility Accommodation

Iowa State University is committed to assuring that all educational activities are free from discrimination and harassment based on disability status. Students requesting accommodations for a documented disability are required to work directly with staff in Student Accessibility Services (SAS) to establish eligibility and learn about related processes before accommodations will be identified. After eligibility is established, SAS staff will create and issue a Notification Letter for each course listing approved reasonable accommodations. This document will be made available to the student and instructor either electronically or in hard-copy every semester. Students and instructors are encouraged to review contents of the Notification Letters as early in the semester as possible to identify a specific, timely plan to deliver/receive the indicated accommodations. Reasonable accommodations are not retroactive in nature and are not intended to be an unfair advantage. Additional information or assistance is available online at www.sas.dso.iastate.edu, by contacting SAS staff by email at accessibility@iastate.edu, or by calling 515-294-7220. Student Accessibility Services is a unit in the Dean of Students Office located at 1076 Student Services Building.

Diversity Affirmation

Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Office of Equal Opportunity, 3350 Beardshear Hall, (515) 294-7612.

Harassment and Discrimination

Iowa State University strives to maintain our campus as a place of work and study for faculty, staff, and students that is free of all forms of prohibited discrimination and harassment based upon race, ethnicity, sex (including sexual assault), pregnancy, color, religion, national origin, physical or mental disability, age, marital status, sexual orientation, gender identity, genetic information, or status as a U. S. veteran. Any student who has concerns about such behavior should contact the instructor, Student Assistance at 515-294-1020 or email dso-sas@iastate.edu, or the Office of Equal Opportunity at 515-294-7612.

Week 01: Introduction

- An history of usability, user-centered design, and user experience.
- Read Cliff Kuang: "How the Dumb Design of a WWII Plane Led to the Macintosh" (2019)
- Learning_Web_Design chapters 1-3.pdf (if you haven't read these already in ENGL 313)
- Read 2 chapters from Steve Krug (2014) Don't Make Me Think.

Week 02: Usability Ideologies and Justifications

- Steve Krug (2013) Chapter 1, "Don't Make Me Think!" Links to an
- Steve Krug (2013) Chapter 2 "How We *Really* Use the Web" Links to an external site.
- Jakob Nielsen and Hoa Loranger (2015) "Chapter 2: The Web User Experience"
- further reading: Jakob Nielsen (2016) "The Distribution of Users' Computer Skills: Worse Than You Think"
- further reading: reddit: Tales from Tech Support Links to an external site.

Week 03: Quantitative vs. Qualitative Studies

- Read Demetrius Madrigal and Bryan McClain (2012) "Strengths and Weaknesses of Quantitative and Qualitative Research" External Url
- Link to the Book: Improving the User Experience through Practical Data Analytics: Gain Meaningful Insight and Increase Your Bottom Line Links to an external site.
- further reading (optional, if useful). Chapter 1, from Mike Fritz and Paul D. Berger (2015) _Improving the User Experience through Practical Data Analytics_. Introduction to a variety of useful statistical ideas and techniques
- Mike Fritz and Paul D. Berger (2015) Improving the User Experience through Practical Data Analytics. Chapter 2. Comparing two designs (or anything else!) using independent sample T-tests
- Table 2-1.xlsx
- Table 2-1.jmp
- Table 2-2.xlsx
- Mike Fritz and Paul D. Berger (2015) Improving the User Experience through Practical Data Analytics. Chapter 4. Pass or fail? Binomial-related hypothesis testing and confidence intervals using independent samples
- Table 4-1.xlsx
- Confidence Interval Calculator (for Table 4.5) Links to an external site.
- Mike Fritz and Paul D. Berger (2015) Improving the User Experience through Practical Data Analytics. Chapter 9. Can you relate? Correlation and simple linear regression
- Table 9-3.xlsx
- Table 9-3.jmp
- further reading: Wikipedia (2020). The Replication Crisis Links to an external site.
- Software of the week: Excel Links to an external site.
- Software of the week: JMP Links to an external site.
- (further) Software of the week: Google Dataset Search Links to an external site.
- Image Results.xlsx

Week 04: User Stories

- Usability.gov (2014) "Task Analysis" Links to an external site.
- Read Chapters 1-3 from Whitney Quesenbery and Kevin Brooks (2016) Story Telling for User Experience
- Read 2 chapters from Richard Lanham (2006) Revising Prose.
- Jeff Sauro (2018) "How large is the evaluator effect in usability testing?" Links to an external site.
- further reading: Emily Glazer et al. "The Shoestring App Developer Behind the Iowa Caucus Debacle" (2020) Links to an external site.
- further reading: Dieter Bohn: "Iowa's caucus fracas shows we're still too ignorant about how apps work" (2020) Links to an external site.
- User Stories (Task Analysis)

Week 05: Personas

- Read Selections (chapters 4, 6, and 7) from Eric Reiss (2012) Usable Usability, Simple Steps for Making Stuff Better
- Read Usability.gov (2017) "Personas" Links to an external site.
- Shazeeye Kirmani, Bhavana Gupta, Hagit Vansover, John Glen Arellano, Zhiya Zhu (2019) "Designing with Personas" Links to an external site.
- Kim Flaherty (2020) "Just-Right Personas: How to Choose the Scope of Your Personas" Links to an external site.
- Read Chapters 7-9 from Whitney Quesenbery and Kevin Brooks (2016) Story Telling for User Experience
- Persona Development

Week 06: Stakeholders and Content Strategy

- Read Tom Johnson (2009) "Three Questions to Start Thinking Like a Content Strategist" Links to an external site.
- Read two articles of your choice from UX Matters. External Url
- Read two articles of your choice from UX Matters. Links to an external site.
- Software of the week: Matomo External Url
- Software of the week: Matomo Links to an external site.

Week 07: Usability Testing

- Steve Krug. Four chapters from _Rocket Surgery Made Easy_
- Jakob Nielsen and Hoa Loranger (2015) "Chapter 3: Revisiting Early Web Usability Findings"
- Peter Suber: "Knowledge as a Public Good" (2019) Links to an external site.
- Read Tom Johnson (2019) "Reflections on my 2019 site analytics" Links to an external site.
- Software of the Week: Webgazer.js Links to an external site.
- Stakeholder Overview Report

Week 08: Usability and Experience Design

- Usability.gov "Reporting Usability Test Results" Links to an external site.

- Read Hotjar: "A beginner's guide to usability testing" (2019) Links to an external site.
- Read this selection from David Lee King (2008) Designing the Digital Experience
- Read any two articles of your choice from I'd Rather Be Writing Links to an external site.
- Software of the Week: Bootstrap's Grid System Links to an external site.

Week 09: Design Thinking and Responsive Content

- Notes from Class: March 11th Links to an external site.
- Sarah Gibbons (2016) "Design Thinking 101" Links to an external site.
- John Seely Brown and Paul Duguid (2013) "Limits to information"
- John Seely Brown and Paul Duguid (2013) "Tunneling Ahead"
- Software of the week: Adobe XD Links to an external site.
- Usability Test: First Test

Week 10: Accessible Design and Universal Usability

- Discussion for Week 11: Post Anything Here
- Link to Synchronous WebEx Online Seminar (begins at 6:10pm on Wednesday, March 25th) Links to an external site.
- Outline for Class Tonight (live and collaborative) Links to an external site.
- Class Outline for Tonight Links to an external site.
- Manuel Cruz: "Tech has an age problem" (2019) Links to an external site.
- Pablo Stanley: "Designing for accessibility is not that hard" (2018) Links to an external site.
- Software of the week: WAVE Browser Extensions Links to an external site.
- further reading: Duke University: "How to do a web accessibility assessment" (2017) Links to an external site.
- further reading: "How can researchers and experts in Human-Computer Interaction and Interaction Design contribute in the COVID-19 crisis" (2020) Links to an external site.
- the Video of the class session from Wednesday, March 25th

Week 11

- Discussion for Week 12: Post Anything Here
- Continue working on your prototype redesign website.
- Mozilla.org: "Using ARIA: Roles, states, and properties" (2018) Links to an external site.
- Section508.gov: "Do Section 508 Accessibility Standards Apply to My Website?" (2017) Links to an external site.
- Siddikjon Gaibullojonovich Abduganiev: "Towards Automated Web Accessibility Evaluation: A Comparative Study" (2017)
- Jerry Cao (2015) "Practical tips for Web and mobile usability tests" Links to an external site.
- Usability.gov "Remote Testing" Links to an external site.
- Accessibility Assessment Report Due
- the_ways.jpg
- further reading: "Accessibility for Web Design" (2018) Links to an external site.
- further reading: A Sample Remote Usability Testing Session Links to an external site.

Week 12

- Discussion for Week 13: Post Anything Here
- recap/overview: Cenydd Bowles and James Box. Undercover User Experience. Chapter 2 "Exploring the Problem" Attachment
- Cenydd Bowles and James Box. Undercover User Experience. Chapter 4: "Making it Real"
- Brad Nunnally and David Farkas: UX Research. Chapter 7: "Recruiting"
- Dana Douglas, Tristan Wilson: "Hold the Phone: A Primer on Remote Mobile Usability Testing" (2016) Links to an external site.
- Denislav Jeliazkov (2019) "Mobile Usability Made Simple" Links to an external site.
- Continue working on your prototype redesign website.
- Draft UX Redesign

Week 13: Thanksgiving Break

Week 14

- Continue working on your prototype redesign website.
- Robert Hoekman, Jr. Designing the Obvious: A Common Sense Approach to Web and Mobile Application Design. Chapters 4, 7, and 9.
- Nguyen Huu Phuoc: CSS Layout Design Patterns (2020) Links to an external site.
- Nathan B. Weller: How To Customize The Style Of Contact Form 7 (2018) Links to an external site.
- Nick Babich: Designing Efficient Web Forms (2017) Links to an external site.
- Usability Test: Second (Remote) Test
- Our Prototype UX Redesigns

Week 15

- Continue working on your prototype redesign website.
- Discussion Forum, for Collaboration about Prototype Redesigns

Week 16: Dead Week

- Creating iOS Apps from Our Site Prototypes
- Web505.zip iOS App Template
- further reading: Apple. Human Interface Guidelines Links to an external site.
- further reading: Material Design Links to an external site.

Week 17: Finals Week

- Final Presentation Report, with UX Redesign