

COMM 3165 Evaluation and Usability Testing
Autumn 2022 – Last updated 8/17/2022

Instructor: Dr. R. Kelly Garrett
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email: garrett.258@osu.edu
Please include “Comm3165” in the subject line

Lecture: Journalism 216 or Zoom (Hybrid)
T/H 12:45 – 2:05pm

Laboratory Section: Journalism 224 or Zoom (Hybrid)
(required) M 2:15 – 4:05pm

Office Hours: Mondays 4:30-5:30pm + by appointment

Rationale and Objectives:

How do we decide whether an interactive communication system is well designed or not? What kinds of data can we collect to help us make this assessment? And how do we communicate the results of evaluations and usability tests to corporate managers and system designers in ways that help them to accept the conclusions and address the problems identified?

The goal of this class is to help you develop the skills you need to evaluate interactive communication systems, diagnose shortcomings in design, and persuasively suggest improvements to a variety of audiences. One of the primary tools for evaluating these systems is offered by a scientific approach based on quantitative and qualitative research. In this class you will learn to use a variety of research methods to inform your conclusions about what users need and whether a system is well designed.

We will cover some basics that you might learn about in any research methods class—having a foundation in social science methodology is vital to being a good interactive technology evaluator. However, the majority of the class will be spent examining methodologies that are unique to evaluation and usability testing.

The class is designed to complement Comm 3545 Human-Computer Interaction & User Experience, which provides an introduction to design principles in HCI and UX.

This class is worth 3 credit hours. According to OSU 3335-8-24 A-1, “One credit hour shall be assigned for each three hours per week of the average student’s time, including class hours, required to earn the average grade of ‘C’ in this course.” Thus, it is expected that you will spend an average of 9 hours per week for this course. We spend less than 3 hours in class; the remaining time should be devoted to reading, studying, and working on course assignments.

Specific Learning Objectives:

Students who successfully complete this course will:

- Have skills in quantitative and qualitative methods of evaluating interactive technologies
- Have an understanding of measurement instruments commonly used in evaluation and usability testing
- Be able to communicate usability testing and evaluation results to a variety of audiences
- Have a basic understanding of what it means to work in evaluation and usability testing
- Have materials that can be used (with modest revision) in a design portfolio

Required Text:

Sharp, H., Rogers, Y., and Preece, J. (2019). *Interactive Design: Beyond Human-Computer Interaction*. (5th edition) West Sussex: John Wiley & Sons, Ltd.

All other required readings are available on CARMEN.

Copyright Disclaimer: The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

COVID-19 Policies:

Please note that these policies may be updated to reflect changes in the epidemic, changes in our understanding of the disease, and changing University, local, state, and federal recommendations/mandates.

Masks: N95 and KN95 masks are a great way to slow the spread of COVID-19 (and lots of other illnesses, too). There are several reasons to do this, even if you are vaccinated. First, the dominant COVID subvariant, BA5, is highly contagious and has contributed to a large increase in cases recently. Second, even if you are vaccinated or have had COVID before, “breakthrough” BA5 infections are quite common. These cases are less severe than cases among individuals who have not been exposed to COVID before, but you still don’t want to go through it if you don’t have to. Finally, and most importantly, if you get COVID-19 you can spread it to other people, including people who cannot take the vaccine. In short, masks help protect you and they help you protect other people.

Social distancing: Social distancing can also help slow the spread of COVID. You should have room to spread out in our classroom, and I encourage you to do so.

COVID exposure/infection: If you test positive for COVID or are exposed to someone who has COVID, you may find OSU’s “wayfinder” useful. The service asks you a series of questions about your situation, and then provides recommendations for what to do.

Policies and Expectations:

Class communication. I will post class updates and/or additional materials as announcements on Carmen and/or to your OSU email. Please check Carmen and read your email regularly (at least 2-3 times per week) because you are responsible for this information, just as you are responsible for information in class.

Participation is required. This is a hybrid class, which means that some sessions will be conducted in-person while others will be held over Zoom. Regardless of how class is conducted, you are expected to be present (in-person or virtually) and to actively participate at the same time as the rest of the class (barring health issues that prevent it).

If we have to move online, please note that it is also important that you turn on your webcam during class. Seeing one another helps build community. It also provides me with essential visual feedback about the class.

Attendance. While sickness and unexpected emergencies arise from time to time, *regular* absence will hurt your grade. I routinely evaluate participation via graded in-class activities. For example, you may be required to upload materials to Carmen or take a poll with TopHat.

That said, given the continued high prevalence of COVID, including breakthrough cases among vaccinated individuals, **students should not attend class if they are feeling sick.** It is very important that individuals avoid spreading the virus to others. Most students should be able to complete a successful semester despite illness-induced absence. If you are absent due to illness, including but not limited to COVID, I will provide you a reasonable opportunity to make up missed work. **You do not need to provide a physician's document of illness, but you should advise me via email as soon as you are safely able to do so.**

Recordings of class sessions. I intend to post lecture slides and recordings of our class sessions on Carmen. These recordings are not a substitute for the in-person learning experience. Instead, they are a tool to help those who are forced to miss class on account of illness to catch up. As such, recordings may fail to capture in-class activities, they may be incomplete in other ways, or they be entirely missing (e.g., in the event of a problem with the recording technology).

Written Assignments: Assignment due dates are listed in the tentative schedule, below. All assignments must be turned in to Carmen by the start of class on the day the assignment is due unless otherwise noted. Short assignments are submitted using the Carmen text editor, though I encourage you to write your answers in a word processor to avoid spelling errors and the like. Final project materials can be submitted in the file format that best suits the assignment (e.g., Word files, PowerPoint files, Acrobat files). When there are paper formatting requirements for an assignment, they are described in the assignment description.

Late Assignments: It is your responsibility to confirm that your assignment has been successfully uploaded to Carmen. Anything submitted after that will be considered late. There will be a 15% score deduction the first day an assignment is late and an additional 15% deduction on the second day. After the second day, I will no longer accept the assignment.

Challenging a Grade: I am always willing to discuss your grades with you, but I will not do so during class time. To challenge a grade, you must wait 24 hours after the assignment is returned and then email me to make an appointment *within one week* of the assignment being returned to you. When we meet, you must present your concerns in writing and attach the graded paper, exam, or presentation. Please note that a challenge may result in grades being raised or lowered.

Technology: When meeting in-person, there are a variety of class activities that require that you use a computer. You may use the labs' laptops or your own computer for these activities. This is, however, the only time that you may use these devices. When not engaged in one of these activities, all laptops should be closed. No digital note taking here, please. Furthermore, the **use of cellphones in the classroom is prohibited**. This technology is distracting to you and to your peers. If I see a cellphone in your hand, I will ask you to leave.

Punctuality: Class begins on time every day so that all scheduled discussions and activities can be completed. You are expected to be punctual. If you are late for class on a student presentation day, do not enter the classroom while one of your peers is speaking or presenting. Please wait outside until there is a break between speeches or presentations.

Academic integrity policy: Each student in this course is expected to demonstrate academic integrity and to abide by the *Code of Student Conduct* (<https://studentconduct.osu.edu/>). *Academic misconduct* includes, but is not limited to, (1) plagiarism (using others' work without citing/crediting them), (2) fabricating information or citations, (3) facilitating acts of dishonesty by others, (4) having unauthorized possession of past exam questions, (5) submitting work previously submitted to another course or work of another person, (6) tampering with the academic work of other students, and (7) cheating on quizzes/exams. Academic misconduct on any assignment will result minimally in receiving a zero on that assignment and may also lead to further disciplinary action. **Penalty for violation of the *Code of Student Conduct* can also be extended to include failure of the course and University disciplinary action.** It is your responsibility to be aware of the rules of academic dishonesty—ignorance is not a defense. ***When in doubt, talk to me.***

Classroom Civility: We want to build a classroom climate that is comfortable for everyone. In a communication class, it is especially important that we (1) display respect for all members of the classroom, including the instructor and students; (2) pay attention to and participate in all class sessions and activities; (3) avoid unnecessary disruption during class time (e.g., having private conversations, reading the newspaper, doing work for other classes, etc.); and (4) avoid racist, sexist, homophobic, or other negative language that may unnecessarily exclude members of our campus and classroom. This is not an exhaustive list of behaviors; rather, they represent the minimal standards that help make the classroom a productive learning environment for all concerned.

Harassment, discrimination, sexual misconduct: If you experience harassment, discrimination, sexual misconduct, or retaliation at OSU, you can seek confidential and non-confidential resources and support from the Office of Institutional Equity: equity.osu.edu, 614-247-5838 (or TTY 614-688-8605), or equity@osu.edu

Course Technology

This being a class about communication technology, I expect you to be able to use a variety of technologies when participating in this class. Email, CarmanCanvas, TopHat, and Zoom will be used most often, but other technologies may be introduced from time to time. I expect you to familiarize yourselves with these technologies and to be able to use them for our class. If you need help, please consult the various support services offered by OSU and the service providers (see below). If those resources are insufficient, please do not hesitate to ask me for help.

As noted above, active participation in the class is critical to your ability to learn this material. This means that it is incumbent on you to resist the temptation to do any of the many other things that your computer makes possible. Stop checking your email, texts, and social media feeds. I know this is hard, but it will make a profound difference your ability to learn this material. Plus, it is a critical life skill. Trust me when I tell you that your friends, your family, your employer—anyone you interact with regularly—will appreciate your ability to ignore the siren song of social media for an hour and twenty minutes at a time.

Required technology.

Most, but not all, class work can be completed using a tablet. You will also find it helpful to have access to a word processor such as Google Docs, Microsoft Word or Apple Pages. When meeting online, you will also need a computer that has a webcam and microphone, and that has reliable Internet access (minimum of about 5Mbps).

Technology support. For help with your password, university e-mail, Carmen, or any other technology issues, please contact the OSU IT Service Desk.

- Self-Service and Chat support: <http://ocio.osu.edu/selfservice>
- Phone: 614-688-HELP (4357)
- Email: 8help@osu.edu
- TDD: 614-688-8743

More information about technologies we will use most often in this class is provided below.

CarmenCanvas: OSU's Learning Management System will be used to host materials and activities throughout this course. To access Carmen, visit <http://carmen.osu.edu>. Log in using your name.# and password. Carmen documentation can be found here: <https://teaching.resources.osu.edu/toolsets/carmencanvas>.

Proctorio: I plan to administer class exams electronically using Proctorio, an online proctoring tool. You are required to have a webcam (USB or internal) with a microphone and a reliable Internet connection. Proctorio will record the testing environment while you take your exam, so it is important that you find a space where disruptions are unlikely and where you can enable video recording. To use Proctorio you must be over 18 years of age. If you have concerns about using an online proctoring tool, please contact me as soon as possible so that we can find a workable alternative. More information about using Proctorio can be found here: <https://teaching.resources.osu.edu/toolsets/carmencanvas/guides/getting-started-proctorio-students>.

CarmenZoom: Office hours and remote lectures will be conducted using Zoom. Zoom can be accessed via the Zoom app (preferred) or a web browser (more limited functionality).

To join the lecture, please do the following:

1. Sign into the class Carmen page
2. Select "Zoom" from the menu on the left side of the screen.
3. Click the "Join" button next to the day's class session
4. Follow the prompts

Please make sure you are familiar with the full range of Zoom features, including muting audio and video, using non-verbals (raise hand, yes/no, thumb up/down), and using the text chat.

More information about Zoom is available here:
<https://teaching.resources.osu.edu/toolsets/carmenzoom>.

Course Requirements:

Course readings are essential to full participation. Doing the readings and reflecting on what you've read is required for this class. My lectures, our discussions, and the in-class activities all take this for granted.

Assignments. The class also requires you to complete a series of out-of-class assignments. There are a total of five individual assignments, one group project, and an in-class presentation. A detailed summary of the requirements for each assignment can be found on Carmen. **As stated above, unless otherwise noted, assignments must be submitted to Carmen before the start of class on the day the assignment is due.**

Exam. You will have a "midterm" for this course, though it will be well past the midpoint of the semester. Exam questions will be generated from the material covered in class lectures and textbook readings. The exam may include multiple choice, matching, fill in the blank, problem solving, and/or short answer questions. I will provide more information about the exam later in the semester.

Lab participation. Lab sections provide an opportunity to practice using skills and concepts introduced during the lecture. Lab time will also be essential to the successful completion of the final project.

Extra Credit:

Extra credit is available for participation in the Communication Research Experience Program (C-REP). More information about how to earn credit via C-REP is available in the *Student Guidelines for the Communication Research Experience Program*, which can be downloaded from the School of Communication's website. Note that directions referring to Comm 1100 and 1101 do not apply to this class. Instead, you can earn one point of extra credit for each hour of research experience, for a maximum of two points.

Grading:

In-class activities	10%
Assignments	25%
Exam	25%
Final project	15%
Final presentation	10%
Lab participation and performance	15%
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Extra Credit via C-REP	Up to 2%

Additional Resources:

Columbus Web Group (<http://www.meetup.com/Columbus-Web-Group/>). If you are serious about a profession in ID/IXD/UXD/HCI/etc, talking to design professional is a must. Columbus is

home to several groups, including this one. The Columbus Web Group hosts periodic Meet Ups, it sponsors a mentorship program geared toward students, *and* it is co-organized by an OSU SoC alum, Sean Doran. Check it out.

Interaction Design Associations of Central Ohio. IXDA is a global professional association (<https://ixda.org/>), and we are fortunate to have an active regional chapter right here in Columbus (<https://www.meetup.com/Columbus-IxDA-Group/>). The group sponsors numerous regular monthly events—I’ve heard great things about Chat n’ Pancakes; it serves as a clearinghouse for news about the field; and the national group’s website features a job board that lists jobs in Columbus, and across the country.

Student Academic Services (<http://advising.osu.edu/>). Arts and Sciences Advising and Academic Services’ website provides support for student academic success. Information on advising issues such as tutoring, transfer credits, academic standing, and contact information for Arts and Sciences advisors can be obtained through this website.

Walter E. Dennis Learning Center (<http://dennislearningcenter.osu.edu/>). This is a free service available to all OSU students, and it has a proven track record of helping students succeed in college. Need a new study strategy? Better time management skills? This is the place to go.

The Writing Center (<https://cstw.osu.edu/our-programs/writing-center>). This may be the last time in your life that you have easily accessible, free help available for your writing skills—use it. Being a good writer will give you an advantage in every walk of life, and if you are a Communication major, it is expected.

Strunk & White’s *The Elements of Style*. If you are uncertain of what constitutes good writing, this classic book is very straightforward and extremely helpful. Find it at a used bookstore or on Amazon for less than \$5. It’s well worth the investment.

COVID-19 Accommodations

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university’s [request process](#), managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

PLEASE TAKE CARE OF YOURSELF (Mental Health Statement):

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student’s ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing.

If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th floor of the Younkin Success Center and 10th floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org

Accessibility accommodations for students with disabilities

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Tentative Course Schedule

Readings marked with an * are available on Carmen.

Date	Topic	Readings	Assignment
T 8/23	Course Introduction, Syllabus		
H 8/25	Data gathering for design	Sections 8.1 – 8.3 (pp. 259 – 268)	
M 8/29	LAB — Please consider wearing a mask today	Introduce final project and brainstorm for topics	
T 8/30	Interviews	Section 8.4 (pp. 268 – 278)	<i>[in-class exercise used in Assign. 2]</i>
H 9/1	Focus groups	Krueger pp. 53-69	Assignment 1 Due
M 9/5	NO LAB	Labor Day	
T 9/6	Questionnaires & Surveys	Section 8.5 (pp. 278 – 286)	<i>[in-class exercise used in Assign. 3]</i>
H 9/8	Questionnaires & Surveys (cont)	*Dillman et al. pp. 113-126	
M 9/12	LAB	Interviews & focus groups	
T 9/13	Observations	Section 8.6 – 8.6.2 (pp. 287 – 298)	
H 9/15	Observations (cont)	Section 8.7 (pp. 300 – 305)	
M 9/19	LAB	Surveys	
T 9/20	Data gathering for evaluation	All of Chapter 14 (pp. 495 – 520)	Assignment 2 Due
H 9/22	Usability testing	Sections 15.1 – 15.2.3 (pp. 523 – 533)	
M 9/26	LAB	Observations	
T 9/27	Experiments	Section 15.3 (pp. 533 – 536) *Wimmer & Dominick pp. 231-253	
H 9/29	Psychophysiology	*Park, “Psychophysiology as a tool...”	
M 10/3	LAB	Experiments	
T 10/4	Field studies (and wrap up prior topics)	Section 15.4 (pp. 536 – 544)	Assignment 3 Due
H 10/6	Quantitative data analysis: Levels of measurement, reliability, validity	*Wimmer & Dominick pp. 52-54; 58-63	
M 10/10	LAB	Select method and start design	
T 10/11	Quantitative data analysis: Distribution, central tendency, dispersion	*Wimmer & Dominick pp. 256-268 (distributions and summary statistics)	
H 10/13	NO CLASS	Autumn Break	
M10/17	LAB	Feedback on research design	
T 10/18	Quantitative data analysis: Telling stories with numbers	Sections 9.1 – 9.3 (pp. 307 – 320)	Assignment 4 Due
H 10/20	Quantitative data analysis: Testing relationships based on samples	*Wimmer & Dominick pp. 271-274 (sample distribution); 294 –296 (Chi); 298 – 310 (parametric)	
M 10/24	LAB	Support for projects in the field	
T 10/25	Qualitative data analysis and grounded theory	Sections 9.4 and 9.5 (pp. 320 – 326; 329 – 341)	
H 10/27	Qualitative data analysis (cont)	*Creswell pp. 194 – 204	
M 10/31	LAB	Support for projects in the field	
T 11/1	Inspections: Heuristic evaluations	Sections 16.1 – 16.2 (pp. 549 – 567)	Assignment 5 Due

Date	Topic	Readings	Assignment
H 11/3	Inspections: Cognitive walkthroughs	Cognitive walkthrough readings (see links on Carmen)	
M 11/7	LAB	Support for projects in the field	
T 11/8	Analytics and predictive models	Sections 16.4 (pp. 576 – 581)	
H 11/10	EXAM		
M 11/14	OPTIONAL LAB (Zoom by appt.)	Support for projects in the field	
T 11/15	Presenting your research	Section 9.7 (pp.342-346) Story telling video (30 min) https://bit.ly/3PYxM6L	
H 11/17	Project work – No class meeting	Use this time to get started on your presentations	
M 11/21	LAB	Support for final project presentation	
T 11/22	Google Analytics	Google Analytics for Beginners (see Carmen for a list of videos and demos)	
H 11/24	NO CLASS	Autumn Break	
M 11/28	LAB	Support for final project presentation and/or report	
T 11/29	Evaluation Presentations		Slides due
H 12/1	Evaluation Presentations		
M 12/5	LAB	Support for final project report	
T 12/6	Project work	Last day of class	Final Assignment Due @ 11:59pm