LESLEY
ART +
DESIGN

SAFNAT 2+7 Telephone
Designed by Marcello
Nizzoli, made by SAFNAT,
Italy, 1958.

Image: Museum of Applied
Arts & Sciences

IAHIS 2105-01 - History of Interface

Instructor Information	**Class Information**
Dr. Ryan H. Collins	Spring 2019
Office Hours: Tuesday's 06:30 PM to 07:30 PM	No Prerequisite
Office Location: TBD	**Meeting Time:** Tuesdays 04:00 PM - 06:30 PM
Phone: (904)657-8453 (*for emergency use only*)	**Location:** University Hall, Room 4-040
Email: rcollin8@lesley.edu	Credits: 3.00

Course Description

What does an interface do and what is it intended to communicate? What does it represent? The telephone pictured above was intended for business or home use. The shape of the handle, the sound of the rotary dial as it turns, and the arrangement of the buttons were all designed to connect users to the machine. How have interfaces in the past addressed this connection between human understanding and machine functionality? What learnings can we apply to the interfaces of today, and beyond? This course examines the history of interface from the ancient past to present through a chronological study of

various tools and technologies created for human-computer interaction. Through illustrated lectures, readings, and discussion, students will understand the impact of the interface on modern society.

Learning Outcomes

At the end of this course, students will be able to:

- *Apply effective criteria for user interfaces to evaluate historical examples of user interfaces and analyze historical approaches to human-machine interactions.*
- *Analyze and document recent user interfaces using the context of historical precedents in interface design.*
- *Predict how human-machine interactions might evolve and propose new interfaces.*

Expectations

Each week students will be expected to log on to Blackboard to review that week's activities; to engage in group discussion/research; and submit each of the weekly assignments. The instructor will give students regular feedback and maintain high learning expectations. As the facilitator, the instructor will encourage peer-to-peer learning. When students feel connected to their professor and peers, they succeed; when they do not feel connected, they can feel isolated and, thus, not achieve their own or the course learning goals.

Classroom Community Agreement

We can foster the interpersonal connections that lead to student achievement by sharing our ideas regularly and making an effort to understand each other's views.

- We will make meaningful contributions in response to other classmates and instructor statements.
- Our primary commitment is to learn from each other. We acknowledge differences among us in backgrounds, skills, interests, and values.
- We will keep a healthy, collegial air, helping the discussions move forward, offer productive debate and constructive pushback.
- If something is bothering you, please share this with the group.
- Our emotional reactions can offer valuable learning opportunities.
- Be mindful of taking up much more space than others. On the same note, empower yourself to speak up when others are dominating the conversation.
- Respect due dates for assignments. Late or missing posts deprive other classmates the opportunity to learn from and with you.

    Adapted from the University of Michigan Center for Research on Learning and Teaching

Course Format

In this course we will study key examples of historical user interfaces that fall into four themes: Operating the Machine (Theme 1) will focus on physical peripherals and inputs for interacting with computers, Conversational User Interfaces (Theme 2) will focus on spoken and written language for interaction. Wearable and Gestural Interfaces (Theme 3) will focus on devices worn on the body or that rely on gesture or movement. Interface and Community (Theme 4), the final theme, will bring students into the complex social realities and cultural underpinnings of effective and limited design. How an interface communicates is limited by culture, language, identity, and context. Week 1 serves as an introduction, where we work together to define what an interface is; Week 14 serves as a summary, where you will work independently on a focused interface study. Blackboard tools such as the Discussion Board and Journal are the heart of the course's written discussion and reflection.

Assignments & Grading

Course activities include readings, in-depth studies of historical examples, written analysis, making timelines, class discussions, and weekly reflections. All assigned activities are individual, but written class discussions and peer reviews are essential components. Assignments are due by the day and time posted. Unless there is an extreme, unavoidable and documented emergency, there will be no exceptions. Grading is based on the learning objectives and rubrics as defined by each of the following types of assignments.

Journal Reflections and Peer Critique (30%)

Weekly assignment prompts for Journal Reflections will be given each week in class.

Each week, you'll be posting a written Journal Reflection where you write about your work during the week. Reflection is an essential part of the learning process. Intentionally attempting to synthesize, abstract and articulate key lessons is more effective than learning only through experience. Journal *Responses should make reference to insights generated from class discussion, specific readings, and the weekly workshopping of ideas.* Journal Responses should also reference any assigned "fieldwork" for the week. Overall, your individual Journal Responses will build into the focus of your Midterm and Final *Projects*.

In addition to writing a **250-word Journal Reflection** each week (*due on Fridays*), you will also be tasked with a short **Peer Critique** of two students (*due on the following Monday*). Each week, you will critique two peers (ideally new students). *You should not critique any single student more than twice* in the course of the semester. This process is meant for you to engage other students' work in meaningful ways. Your feedback should emphasize key points of connection, helping students build upon their ideas in a productive way.

Grading will be done on a scale of 0-5, both for the Journal Reflection and Peer Critique. Grades are determined based on the following assessment criteria:

- Timeliness – You submitted your journal entry on time.
- Fulfills the Assignment – Your journal entry responds to the guiding questions, variations from the guiding questions are made for valid and creative reasons.
- Relevance – Your journal entry relates observations to class concepts and/or personal experiences.
- Clarity – Your journal entry is well-organized; opinions and arguments are easy to follow.
- Quality/Originality – Documentation is clear, creative, and illustrates your unique perspective.

Readings and In Class Discussion (Active Participation) (20%)

Directed Reading Questions on weekly media will be posted to Blackboard by 06:00 PM on the Wednesday following class. Answers to these questions help direct in class discussion to important and relevant subjects for each week. Answers should be generated in response to the questions posted, which can be referenced in class discussion. <u>You do not need to print or submit documents</u>, though I encourage and monitor active participation in reading discussions.

The readings vary from historical perspectives on the role of computers in society, articles and blog posts about interfaces, and interface design guidelines. You will respond in writing to guiding questions on each reading in our class Discussion Board. Grading will be done on a scale of 0-5. Grades are determined based on the following assessment criteria:

- Timeliness – You submitted your response on time.
- Careful reading – Your response shows an understanding of the reading material, citing specific examples or quotations to back up claims when needed.
- Critical thinking – Arguments in your response are well-developed and detailed and show evidence of your perspective and position.
- Collaboration – You responded to at least two other classmates' posts in a way that builds on, synthesizes, or compares their ideas.

Project Workshopping (10%)

Over the course of the semester, your weekly work will build into your overall *Project* on an interface of your choice. How you select an interface, begin to explore it, and continue to work with it throughout our class will be influenced by weekly peer to peer workshopping. In your groups, we will spend 30 minutes to an hour workshopping *Project* ideas on individually generated interface subjects. <u>Weeks 3, 5, 6, 8, 9, 10, 11, 12, 13, and 14 will have peer workshops.</u>

Midterm *Project* (10%)

*The Midterm *Project* is Due: March 8th at 06:00 PM*. Your midterm assignment will be the solidified foundation of your Final *Project*. With the midterm, you will select an interface type (following from your journal assignments and in-class workshops thus far). With your chosen interface you will discuss the breadth of its application today, its successes and shortcomings. This assignment is all about the

present use and application of your chosen interface – from a global and local perspective. <u>Papers should be 5-7 double spaced pages.</u>

With the completion of this assignment you should have the necessary background to ask of your chosen interface: *How did it get here? From what interfaces did this evolve? And; how is this interface likely to change in the future.* <u>*Answering these resulting questions will be the basis of your Final *Project*.*</u>

Presenting your *Project* Research (10%)
"…Brevity is the soul of wit…" – Lord Polonius, in William Shakespeare's *Hamlet* (1602)
<u>On the final day of class, May 7th</u>, you will have the opportunity to engage your peers in **<u>a 5-minute presentation</u>**. *How* you choose to present is up to you. You are encouraged to be creative. You are welcome to present in person, using PowerPoint, posters, food, or with artistic media that help you articulate your findings on your chosen interface over the semester. Conversely, you may produce a media presentation that will be shared with the class (including video or audio).

<u>*Your presentation must include*</u> a brief history of your chosen interface, why you chose it, revelations you have encountered, issues of cultural disconnect, and recommendations you have for modifying this interface. Most importantly, you are encouraged to have fun. This is your time to shine.

Final *Project* (20%)
The Final *Project* is Due: May 10th at 06:00 PM. Your final assignment represents a culmination of your study and critical reflection throughout the course. You will write a short paper exploring historical precedents to a contemporary interface example of your choosing. <u>Papers should be 10-12 double spaced pages.</u> Grading will be done on a scale of 0-20. Grades are determined based on the following assessment criteria:

- Creativity – Your essay demonstrates an imaginative, well-considered approach to selecting precedents.
- Critical thinking – Arguments in your essay are well-developed and detailed and show evidence of your own perspective and position.
- Mechanics – Sentence structure, grammar, and spelling are attended to.

All students in a B.F.A., Diploma, or Certificate Program in Design are required to receive a C- or higher in Design Sequence courses. Design students receiving a D+ or lower will need to repeat this course (or pass an additional design elective) if they wish to matriculate in the Design program.

Attendance Policy

Regular attendance in all classes is required. Students are expected to arrive on time and remain in class for the entire period scheduled. The responsibility for work missed due to any type of absence rests with the student. A failing grade may be assigned to any student who attends less than 80 % of class meetings (3 classes of a course meeting once per week or 6 classes of a course meeting twice weekly). Any exceptions are made at the discretion of the instructor.

Course Schedule

INTRODUCTION
Week 1: January 22, 2019
- Journal Assignment 1: Due in the Second Class.
- Critical Review of a Peer Journal Post: Not Required on Week 1.

OPERATING THE MACHINE – Theme 1
Week 2: January 29, 2019
- Journal Assignment 2: Friday, February 1st by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, February 4th by 06:00 PM
- Add Drop Ends February 4, 2019/Final Day to Drop without a "W."
- **Listen:** Infinite Scroll (2018) – The Secret History of the Future – Slate

Week 3: February 5, 2019
- Journal Assignment 3: Friday, February 8th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, February 11th by 06:00 PM
- In Class Workshop 1
- **Reading:** Chapter 1 of Entangled, called "Thinking about Things Differently" by Ian Hodder
- **Short Read:** How A.I. Is Creating Building Blocks to Reshape Music and Art (2017) – Cade Metz – New York Times
- **Listen:** The Box That AI Lives in (2018) – The Secret History of the Future – Slate

Week 4: February 12, 2019
- Journal Assignment 4: Friday, February 15th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, February 18th by 06:00 PM
- Library Research Session: Understanding Research at Lesley University
- **Reading:** The Sublime and Scary Future of Cameras With A.I. Brains (2018) – Farhad Manjoo – New York Times
- **Listen:** "From Zero to Selfie," Episode 6 of The Secret History of the Future, a Podcast by Slate and the Economist.

CONVERSATIONAL USER INTERFACES – Theme 2

Week 5: February 19, 2019
- Journal Assignment 5: Friday, February 22nd by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, February 25th by 06:00 PM
- In Class Workshop 2
- **Reading:** Chapter 1 of "Stuff" (2010), by Daniel Miller
- **Listen/Watch:** Cradle to Cradle Design (2005) – William McDonough – TED

Week 6: February 26, 2019
- Journal Assignment 6: Friday, March 1st by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, March 4th by 06:00 PM
- In Class Workshop 3
- **Reading:** Technofossil (2018) – Jared Farmer in "Future Remains: A Cabinet of Curiosities for the Anthropocene" edited by Gregg Mitman, Marco Armiero, and Robert S. Emmett.
- **Short Reading:** The Not-So-Dumb Objects That Smartphones Have Led Us to Ignore (2018) – Deborah Needleman – New York Times

Week 7: March 5, 2019
- Journal Assignment 7: Friday, March 15th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, March 18th by 06:00 PM
- Reading:
- **Listen:** Unintended Consequences (2018) – NPR TED Radio Hour – NPR
- **Midterm *Project* Due Friday, March 8th at 06:00PM (10% of Final Grade)**

SPRING BREAK: March 11 through 17

WEARABLE AND GESTURAL USER INTERFACES – Theme 3

Week 8: March 19, 2019
- Journal Assignment 8: Friday, March 22nd by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, March 25th by 06:00 PM
- In Class Workshop 4
- **Reading:** The Textility of Making (2010) – Tim Ingold
- **Short Reading:** Portrait of an Artist as an Avatar (2009) – Sara Corbett – New York Times

Week 9: March 26, 2019
- Journal Assignment 9: Friday, March 29th by 06:00 PM
- Critical Review of a Peer Journal Post Due: Monday, April 1st by 06:00 PM
- In Class Workshop 5
- **Reading:** Chapter 9 of "Making" called Drawing the Line, by Tim Ingold (2010)

Week 10: April 2, 2019

- Journal Assignment 10: Friday, April 5th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, April 8th by 06:00 PM
- Last day to drop with a "W" is April 4, 2019
- In Class Workshop 6
- **Reading:** Want to Know What Virtual Reality Might Become? Look to the Past (2016) – Steven Johnson – New York Times
- **Listen:** VR or It Didn't Happen (2018 – The Secret History of the Future – Slate

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INTERFACE AND COMMUNITY – Theme 4

Week 11: April 9, 2019

- Journal Assignment 11: Friday, April 12th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, April 15th by 06:00 PM
- In Class Workshop 7
- **Reading:** Chapter 4 of "Stuff" (2010) – Daniel Miller
- **Listen:** NYT The Daily Podcast, Episode: Media Watchdogs, On the Decline on Local News

Week 12: April 16, 2019

- Journal Assignment 12: Friday, April 19th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, April 22nd by 06:00 PM
- In Class Workshop 8
- **Reading:** The Cultural Biography of Things: Commoditization as a Process (1986) by Ygor Kopytoff. Chapter 2 in Arjun Appadurai's "The Social Life of Things"
- **Short Reading:** Disruptive Design – Making Positive Change by Design – Medium

Week 13: April 23, 2019

- Journal Assignment 13: Friday, April 26th by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, April 29th by 06:00 PM
- In Class Workshop 9
- **Short Reading:** Young Digital Artists, Anxious About… Technology (2017) – Frank Rose – The New York Times
- **Short Reading:** A Nuclear Warning Designed to Last 10,000 Years (2016) – Allison Meier -- Hyperallergic

REFLECTIONS

Week 14: April 30, 2019

- Journal Assignment 14: Friday, May 3rd by 06:00 PM
- Critical Review of a Peer Journal Post: Due Monday, May 6th by 06:00 PM
- May 4 and 5: Reading Days for Art History and general education courses.
- In Class Workshop 10
- **Listen:** The Power of Design (2018) – NPR TED Radio Hour – NPR

PRESENTATIONS

Week 15: May 7, 2019, Final Class Session

- Journal Assignment 15: Critical Reflection on Presentations: Due May 10th, with the Final Assignment.
- 5-minute Class Presentations + Short Q & A for Each Student (10% of Final Grade)

FINAL ASSIGNMENTS DUE: MAY 10 at 06:00 PM (FINAL DAY OF THE SEMESTER) (20% of Final Grade)

- May 13th, 2019: Deadline for Instructors to submit grades for Graduating Seniors
- May 25th, 2019: Deadline for Instructors to submit grades

COURSE MATERIALS (Written, Audio, and Visual)

****Texts will be assigned at the end of each class***

Peer Reviewed Texts

- Technofossil (2018) – Jared Farmer in "Future Remains: A Cabinet of Curiosities for the Anthropocene" edited by Gregg Mitman, Marco Armiero, and Robert S. Emmett.
- Making (2013) – Tim Ingold – Chapter 9 – Drawing the Line.
- The Textility of Making (2010) – Tim Ingold – Journal of Economics
- Entangled (2012) – Ian Hodder – Chapter 1 – Thinking about Things Differently
- The Cultural Biography of Things: Commoditization as a Process (1986) – Ygor Kopytoff in Arjun Appadurai's "The Social Life of Things"
- Stuff (2010) – Daniel Miller

Popular Media Texts

- Young Digital Artists, Anxious About... Technology (2017) – Frank Rose – The New York Times
- Want to Know What Virtual Reality Might Become? Look to the Past (2016) – Steven Johnson – New York Times
- Portrait of an Artist as an Avatar (2009) – Sara Corbett – New York Times
- Brian Eno Wants to Take You 'Inside the Music' (2018) – Nina Siegal – New York Times
- The Sublime and Scary Future of Cameras With A.I. Brains (2018) – Farhad Manjoo – New York Times

- How A.I. Is Creating Building Blocks to Reshape Music and Art (2017) – Cade Metz – New York Times
- The Not-So-Dumb Objects That Smartphones Have Led Us to Ignore (2018) – Deborah Needleman – New York Times
- Handaxes: Products of Sexual Selection? (1999) – Marek Kohn and Steven Mithen – Antiquity (73) Page 518
- Disruptive Design – Making Positive Change by Design – Medium
- A Nuclear Warning Designed to Last 10,000 Years (2016) – Allison Meier -- Hyperallergic

Podcasts and Audio
- Unintended Consequences (2018) – NPR TED Radio Hour – NPR
- The Power of Design (2018) – NPR TED Radio Hour – NPR
- The Box That AI Lives in (2018) – The Secret History of the Future – Slate
- Fork Fashion and Toilet Trends (2018) – The Secret History of the Future – Slate
- The Fault in Our Cars (2018) – The Secret History of the Future – Slate
- VR or It Didn't Happen (2018 – The Secret History of the Future – Slate
- Infinite Scroll (2018) – The Secret History of the Future – Slate
- Cradle to Cradle Design (2005) – William McDonough – TED

Video and Documentary
- The rise of Killer Robots (2018)
- The Truth about Killer Robots (2018)
- Abstract: The Art of Design (2017)
- Cave of Forgotten Dreams (2010)

readings and text are subject to amendment at instructor's discretion, from student input, as well as with new and relevant media

Lesley University Learning Community Syllabus Statement

Faculty, staff, and students are all responsible for advancing a campus and classroom climate that creates and values a diversity of ideas, perspectives, experiences and identities. As such, we aspire to engage together in a community where each person is respected and empowered to express themselves and be heard.

We commit to creating an environment and developing course content that recognizes the learning experience of every student with dignity and respect, regardless of differences that include, but are not limited to: race, socio-economic status, ethnicity, indigenous background, immigration status, nationality, gender identity/expression, language, abilities and accommodations, religion/spirituality, sexual orientation, veteran status or membership in uniformed services, political views, age and physical appearance.

Lesley University's Mission Statement states that "…*Lesley prepares socially responsible graduates with the knowledge, skills, understanding and ethical judgment to be catalysts shaping a more just, humane, and sustainable world.*" Among many experts in the field, Diane Goodman has described the following competencies: (1) Building self-awareness, (2) Understanding and valuing others, (3) Knowledge of societal inequities, (4) Interacting effectively with a diversity of people in different contexts, and (5) Fostering equity and inclusion. Our mission and these competencies are embedded in our curricula and our classrooms. They provide a foundation for transformative teaching and learning and approaches to social justice.

Lesley Art + Design Critique Culture Syllabus Statement

Critique is a conversation about the content and context of the work you make, as well as the development, process, and final form your work takes. It's not a personal critique of you as an individual. Critique can be an intense process to engage in whether you are presenting work or are participating in the conversation. As a student, it is important to realize that feedback comes from many different voices and perspectives and may conflict and contradict itself. This is true for the positive and the negative, but it is important to not take it personally or constantly be on the defensive. Critique is a vital part of the creative process. It is a communication skill that needs to be learned and practiced the same as any technical skill or mastery of medium and materials. Critique extends beyond the art and design school environment to professional and personal studio practices. It is an essential part of the process of making and evaluating your work. Participation in the process is necessary for it to be valuable.

Lesley University Library Services

The Library Research Portal (research.lesley.edu) provides access to multiple services and authoritative resources for academic research including books, articles, tests, visual media, and teaching resources. The Lesley University Library encourages students and faculty to use these academic resources for their assignments:

- Our Ask-A-Librarian page lets you chat, text, call, e-mail, or request a meeting with a librarian!
- Visit our two libraries for drop-in help, course reserves, computers/wifi, printing, new magazines and journals, and (of course) books!
- **Sherrill Library**, the main university library, Brattle Campus, 617-349-8850
- **Moriarty Library**, the arts library, Porter Campus, 617-349-8070

Academic Dishonesty

Academic dishonesty comes in many forms. The following list is not meant to be exhaustive, and a student may be charged and found guilty of violating the University's Academic Integrity Policy for an offense not enumerated below. Academic dishonesty includes cheating, plagiarism, fabrication and falsification, multiple submissions, abuse of academic materials, complicity/unauthorized assistance, lying/tampering/theft. Please review the student handbook for details: http://www.lesley.edu/academic-integrity-policy/

Disability Statement

Lesley University is committed to ensuring that all qualified students with disabilities are afforded an equal opportunity to participate in and to benefit from its programs and services. To receive accommodations, a student must have a documented disability as defined by Section 504 of the Rehabilitation Act of 1973 and the ADA Amendments Act of 2008 and must provide documentation of the disability. Eligibility for reasonable accommodations will be based on the documentation provided.

If you are a student with a documented disability or feel that you may have a disability, please contact the appropriate disability administrator:

Center of Academic Achievement:

For Students with Learning Disabilities, Attention Disorders, and Asperger Syndrome:
Kimberly J. Johnson, Director LD/ADD Academic Support Program
Doble Hall, 2nd floor
Phone: 617.349.8462 • Fax: 617.349.8324
kjohnso7@lesley.edu

For Students with Physical, Sensory, and Psychiatric Disabilities:

Daniel Newman, Director of CAA (ADA/504 Coordinator)
Doble Hall, 2nd Floor
Phone: 617.349.8572 • Fax: 617.349.8324
dnewman@lesley.edu

The contact persons play the role of facilitator between the student's needs, faculty requirements, and administrative guidelines of the University. Disability-related information is not shared without the permission of the student.

Equal Opportunity and Inclusion Policy

Lesley University remains committed to a policy of equal opportunity, affirmative action, and inclusion for all current and prospective faculty, students, and staff and to eliminating discrimination when it occurs. Lesley University does not discriminate on the basis of race, color, religion, sex, national origin, age, veteran status, disability, or sexual orientation in admission to, access to, treatment in, or employment in its programs and activities. Lesley will not ignore any form of discrimination, harassment, or sexual harassment by any member of the Lesley community. Moreover, Lesley does not condone any form of retaliation against any person who brings a complaint of discrimination, harassment or sexual harassment or against anyone who cooperates in a complaint investigation. For more information, visit https://lesley.edu/students/policies/equal-opportunity-and-inclusion-policy or contact Dr. Nathaniel

Mays, Dean of Student Life and Interim Title IX Coordinator, 617 349-8539 and equalopportunity@lesley.edu