ASSIGNMENT: SPECULATIVE INTERFACE DESIGN

"We work within the models embodied by digital environment and instruments, and we ignore the implications of this at our peril."

– Johanna Drucker, *SpecLab*

HOW THIS ASSIGNMENT FITS INTO A WRITING COURSE

*In this course we have engaged with writing using a variety of platforms, formats, technologies, and tools & each of these engagements has been mediated through an interface. **This assignment calls our attention to those interfaces – their constraints and affordance, their limits and possibilities – by re-imagining them and "speculating" their alternatives***

WHY THIS ASSIGNMENT MATTERS

Reading and writing practices in digital environments are always mediated through interfaces; however, interface design is embedded within and emerges from a particular cultural and historical trajectory – one that not all writers may share. Therefore, it is important to ask: *How are literacy practices shaped by and framed within the interfaces of particular digital tools? Are interfaces equally accessible to all readers and writers? What "interface literacies" do we need to develop before reading and writing on digital devices? What knowledge resources do we bring to each encounter with digital writing and how can interfaces acknowledge or ignore them?*

READINGS THAT WILL HELP YOU WITH THIS ASSIGNMENT

- Wendy H. K. Chun, "**Daemonic Interfaces, Empowering Obfuscations,**" Programmed Visions: Software and Memory (MIT Press, 2011)
- Lori Emerson, **"Indistinguishable from Magic,"** Reading Writing Interfaces: From the Digital to the Bookbound (University of Minnesota Press, 2014)
- Johanna Drucker, "**Interface and Interpretation**," Graphesis: Visual Forms of Knowledge Production (metaLab, 2014)
- Ted Nelson, "**Ted Nelson in Herzog's 'Lo and Behold'**" (YouTube, video clip)
- Johanna Drucker, "**From Digital Humanities to Speculative Computing**" SpecLab: Digital Aesthetics and Projects in Speculative Computing, U of Chicago Press, 2009
- G. Marc Turner, Noelle Wall Sweany, Jenefer Husman, **"Development of the Computer Interface Literacy Measure**," (Journal of Educational Computing Research, 22.1, 2000)
- Ben Shneiderman and Catherine Plaisant, "**Evaluating Interface Designs**," Designing the User Interface: Strategies for Effective Human-Computer Interaction (Pearson, 2010)

HOW THIS ASSIGNMENT WORKS

This is a four-part assignment that will take place over 2 weeks. It is worth 25% of your course grade (see evaluation rubric at the end of this document.)

Part 1: Critique | **Part 2:** Create | **Part 3:** Assess | **Part 4:** Reflect

PART 1: CRITIQUE
INTERFACE DISSECTION
"GUIs are a functional analog to ideology"
- Chun, 2011, p. 66

Purpose: To develop critical awareness of the interfaces used in daily life and literacy settings.

Audience: Your peers, yourself, your teacher

Format: Discussion & Exit Ticket

Details: In-class activity on _____; 5% of assignment grade

During our class session on _____, you **will be assigned an interface to analyze**. We will look at printed and digital versions of the interfaces of Canvas, Facebook, Google Classroom, and other digital tools we have discussed and used throughout the semester. In analyzing the interfaces, you will be asked to label any visual and linguistic metaphors the interface uses in its icons, functionality, or text (such as icons of paperclips, scrolling motions, or terms like "highlight").

Your "exit ticket" reflection activity for this activity will be to jot down what you learned from these activities and discussions and to think about how these existing interfaces may be more or less accessible for readers and writers. You will also begin speculating a re-imagined interface.

PART 2: CREATE
SPECULATIVE INTERFACE DESIGN
"We are far less concerned with making devices do things...than with creating ways to expose any form of expression...as an act of interpretation"
-   Drucker, SpecLab, 2009, p. 25–26

Purpose: To create an imaginative interface that **helps us see and see beyond the limits of existing interfaces**

Audience: Your choice (imagined, future students, current peers, etc.)

Format: Your choice of paper or digital materials (This Google series on Rapid Prototyping is helpful.)

Details: Bring to class on _____, 10% of assignment grade

You will design a speculative interface for a digital literacy activity. (Yes, I know that the term "digital literacy activity" is intentionally vague. This is because the content of your interface will depend on the form you choose to create, which is the focus of this activity.)

Your goal is not to design a working, usable interface. Rather, the goal is to force ourselves to think beyond the constraints of the interfaces we are familiar with so that we can more critically evaluate how they may be impacting our students, who may not approach digital tools with the same level of familiarity or ability we assume or who may bring knowledge and experiential resources to a human-computer interaction that existing interfaces do not embrace.

You may create this interface using any tools you'd like, digital or non-digital, including but not limited to: paper, scissors, markers, glue, tape, post-it notes, prezi, wix.com, wordpress, scratch, google draw, powerpoint, canva, form, etc. **I recommend choosing a medium that allows for speculation**; avoid templates, and look for digital or non-digital materials that function as blank canvases. The fewer ideas embedded within the tool you choose to use, the more speculative and imaginative your interface design will be.

If you don't know where to start, you may want to consider one (or more) of the following prompts in designing your speculative interface:

1) Imagine that a specific material technology (A4 paper, QWERTY keyboards, windows, scrolls) has been removed from our collective cultural / historical consciousness. How would an interface be built without this material metaphorical resource?
2) Design an interface for a student who has never before interacted with a computer. What knowledge resources will they bring to their user-interface interaction? What kind of interface can capitalize on these resources?
3) Design a user-*Unfriendly* interface. How might an interface discourage interaction?
4) Reverse the perspective in the human-computer-interaction so that the machine is the "user" trying to interact with a human. What type of visual architecture is needed to help a machine user "interface" with a human?

PART 1: ASSESS
USABILITY TESTING
"If feedback is the 'breakfast of champions,' then testing is the 'dinner of the gods.''
- Shneiderman and Plaisant, 2010, p. 132

Purpose: To understand how someone else interacts with your speculative interface and to practice usability testing as a formative assessment measure

Audience: Yourself and your peers

Format: Recorded in-class activity

Details: In-class activity on _____; 5% of assignment grade

You will bring your speculative interface design to class on _____, and you will be randomly paired with another student. **You will then conduct a usability test using a think-aloud protocol to see how someone else tries to navigate and use your speculative interface**. We will talk about

think-aloud protocols as a class before beginning the activity, but you should reference Shneiderman and Plaisant (2010) and usability.gov to prepare for this activity. You will be expected to take notes and recordings of the activity during class for use in your reflection.

We will also discuss how usability testing measures such as think alouds or screen recordings can be used as formative assessment measures to gauge students' interface literacy in schools.

PART 4: REFLECT
REFLECTION / DEBRIEF
"defamiliarization by way of digital writing interfaces works against the way in which digital media and their interfaces are becoming increasingly invisible even while these interfaces increasingly define what and how we read/write"
- Emerson, 2014, p. 46

Purpose: To reflect on the relationship between your understanding of the readings, your experiences in this assignment, and your future practices and goals

Audience: Yourself and your instructor

Format: Your choice! Written essay, slideshare presentation, audio or video recording, drawing, etc...

Details: Submit through Canvas on ____; 10% of assignment grade

After critiquing, creating, and assessing others' response to your speculative interface, **reflect critically on the process**. Draw on relevant readings from the syllabus or other sources to interpret your process through a theoretical lens. What constraints were embedded in your design process based on the media you used, the boundaries of your imagination, or the limits of you technical skill? What effect did these constraints have on your user's experience?

Your reflection can be written, audio, or video recorded and can take either a scholarly or personal tone. Use this as an opportunity to think about how understandings developed through this assignment will **go with you** into future writing and reading scenarios. Has your thinking about interfaces changed? How will this change in thinking affect change in your digital reading and writing practices?

EVALUATIVE RUBRIC				
PART 1: Critique **Interface Dissection**	**1–2 pts.** You do not participate in the activity or do not complete your exit ticket reflection.	**3 pts.** You may not fully participate in the activity or sufficiently complete your exit ticket reflection.	**4–5 pts.** You fully and constructively participate in the labeling activity and discussion and your exit ticket reflection demonstrates thoughtful effort.	_____ pts.
PART 2: Create **Speculative Interface Design**	**1–3 pts.** You may mimic an existing interface without sufficiently reimagining it, rely too heavily on a template, or your design may have need more effort and time invested in it.	**4–7 pts.** You create a somewhat imaginative design, but it may be lacking in creativity or risk-taking. You may show a sufficient amount of effort but a lack of risk, or the inverse.	**8–10 pts.** You successfully "defamiliarize" a user-interface experience by reimagining it in unique and imaginative ways. The design is creative, takes risks, and provokes thought.	_____ pts.
PART 3: Assess **User Testing**	**1–2 pts.** You are not able to fully participate in user testing.	**3 pts.** You somewhat participate in user testing.	**4–5 pts.** You fully participate in user testing, including think-alouds and recordings.	_____ pts.
PART 4: Reflect **Reflection / Debrief**	**1–3 pts.** You may only report on what happened or on what you read without reflecting on meaning or transferability.	**4–7 pts.** You reflect on the process of this assignment but may not discuss transfer or incorporate readings thoroughly.	**8–10 pts.** You critically reflects on the relationship between your understanding of the readings, your experiences in this assignment, and your future practices and goals	_____ pts.
TOTAL POINTS (of 25 possible):				