Lesson 1 (Monday 12 January): Looking Forward

Welcome to DTC/ENGL 375. I'll usually begin class by reviewing the homework for next class, which I'll do today, and then move into the lesson.

I'll give you an overview of the course and its contemporary relevance (in other words, why what we're doing matters), and then go over some basic information and the required texts (available at the bookstore): James Gleick, *The Information*, and Dennis Baron, *A Better Pencil*. Both will help us with the significant historical components of this course. I'll also go over the digital technology requirements: since this is listed as a course in the Digital Technology and Culture major with an emphasis on digital technologies, I'll ask you to bring to every class some sort of networked computing device (smartphone, tablet, laptop). Part of the historical emphasis of this class is also the idea that you're a part of and witness to the ongoing history of digital technologies: at the start of the semester in 2013 when I last taught this course, Chelsea Manning was sentenced for giving digital information to Wikileaks; this year, we'll make connections between the Dzokhar Tsarnaev trial, the Charlie Hebdo shootings in Paris, and digital media. The idea is important: you're a part of history here. History is now, and it's built upon the foundations that came before, and you're witnessing and building those foundations as well.

Next, on a piece of paper, write down your responses to the following questions. In twenty minutes, please be as thorough and detailed as possible: there is no prize for finishing early. You'll use what you wrote today again later in the semester. I will not see the answers you write, so please be forthright.

1. What meanings does the word "technology" hold for you?
2. Name what you think are the three most important moments in the history of technology. In a sentence or two each, describe why they're important.
3. Name what you see as three significant problems associated with technology today. In a sentence or two each, describe why they're important.
4. In this course, what do you most hope to work on or learn about? Other than earning an A, what are the activities or ideas you could engage or investigate that would be most rewarding, and why?

After twenty minutes is up, I'll ask you to fold up what you wrote, put it in the envelope I give you, seal the envelope, and write your name on the front. I'll collect the envelopes and return them to you, still sealed, later in the semester.

For the last portion of class, we'll review the grading policy and major assignments.
Homework for Wednesday 14 January

Posted on: Tuesday, January 13, 2015 10:50:38 PM PST

Read the 4 linked articles about #gamergate and be prepared to discuss how they might connect to the class policy about participation and respectfulness, and also how they reflect some of our contemporary concerns about digital technology and culture. To get you used to how the class will work, and to help ensure we have a productive discussion, I'll assign a very short (5 questions) reading quiz that will have obvious answers if you've completed the reading.

- Alexander, "Gamers Are Over"
- NYT, "Anita Sarkeesian"
- Baio, "72 Hours of #Gamergate"
- Wagner, "The Future of the Culture Wars"

As I mentioned on the first day and noted on the syllabus "required materials" section, please be sure to bring a networked computing device (laptop, smartphone, tablet, etc.): we'll make sure everybody can access the Discussions area and offer some insights.

Lesson 2 (Wednesday 14 January): #gamergate and Class Participation

Posted on: Wednesday, January 14, 2015 1:00:00 PM PST

We'll start with the reading quiz.

Next, we'll listen to a brief podcast by Meredith Haggerty called "Little Sh*ts" (yes, also related to the theme of classroom respectfulness). Keep track of what your reactions are: after we finish listening, I'll ask you to post a quick comment about the podcast in response to the first Open Forum thread in Discussions. Make some kind of connection to your own experience (internet tough guys, banning Yik Yak, parents peeping Yik Yak, arguments on social media, whatever you can think of) and describe what you think about it.

Next, I'll ask you to get into small groups. Each group will have 5-10 minutes to answer one of the following two questions:

- What are some non-obvious ways the homework readings and the podcast connect to or contradict the class participation policy in the syllabus and the goals of higher education?
- How do the homework readings and podcast reflect contemporary and historical concerns, hopes, and anxieties about technology and culture?

In each group, appoint one person to post your answers to the Discussions thread we were just working on (make sure you put the group members’ names in the post), and one person to present your answers verbally to the class. We’ll discuss.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC
Reading Quiz #1 (14 January)

Posted on: Wednesday, January 14, 2015 1:10:00 PM PST

Make sure you write your name at the top of your card. Your answers should be brief.

1. In "Gamers Are Over," what does Leigh Alexander think of expressed concerns about ethics in games journalism?

2. In the New York Times op-ed by Anita Sarkeesian, what 2006 technology "reignited" her interest in gaming via unconventional titles and paved the way for "indie, mobile, and experimental titles"?

3. In the Andy Baio "72 Hours" article, what are the big hairballs?

4. In Kyle Wagner’s "The Future of the Culture Wars" article from Deadspin, name anything significant that either (A) Chris Watters of GameSpot or (2) Intel did.

5. Beyond these journalistic pieces (I'm not asking you to agree or disagree with any of them), what’s your own (brief) opinion about how #gamergate reflects the history or the possible future of gaming?

6. **1-point extra credit bonus:** What did NSA Colonel John Casey, Animal Mother, and Jayne Cobb do?

7. **Optional, for no extra credit, but might help me learn who you are faster:** Put an inscrutable and mysterious drawing, quotation, doodle, poem, or symbol on the flip side of your card.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Homework for Friday 16 January

Posted on: Wednesday, January 14, 2015 1:00:00 PM PST

Read Jonathan Lethem, "The Ecstasy of Influence," the syllabus, and Noureddine Elouazizi, "Point-of-View Mining and Cognitive Presence in MOOCs." I’ll ask you about how Lethem and Elouazizi connect to the policies and themes and implicit problems in the syllabus, and we’ll review the syllabus. I’ll have some questions for you, and I predict you might have some questions for me.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Lesson 3 (Friday 16 January): Plagiarism, Syllabus, Attendance

Posted on: Friday, January 16, 2015 1:00:00 PM PST

We’ll start by talking more about online bad behavior and how that behavior connects to our anxieties about new technologies. What have your experiences been, and what does that make you think about how people have historically felt about communication technologies? We’ll also talk about the Lethem reading, and about ideas about education and sharing ideas in relation to ideas about work and reward: when do ideas belong to you, and when do they belong to everybody?

We’ll review the syllabus and the policies, and I’ll answer any questions you have. We’ll do the get-to-know-you thing: introduce yourself to the class with your name and one very brief and interesting thing that sets you apart from everybody else in the class.

If we have time, we’ll connect the attendance policy to the Elouazizi reading.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC
Homework for Wednesday 21 January

Read John Perry Barlow, "The Economy of Ideas," and Lawrence Lessig, Free Culture pages 1–12.

Your first Discussion Board post is due, under the 1/21 thread. As the assignment description states, you should try to be as thoughtful and detailed as possible, with a minimum suggested length of 300–600 words. You are welcome to engage the recent readings (necessarily including but not limited to Barlow and Lessig) via any of three options: Stock, Custom, or Freestyle. (See the assignment description for more details.) If you choose Stock, here's your prompt:

Later in Free Culture, Lessig invokes old-style communism in writing that "[a] world in which competitors with new ideas must fight not only the market but also the government is a world in which competitors with new ideas will not succeed. It is a world of stasis and increasingly concentrated stagnation. It is the Soviet Union under Brezhnev" (128). In a CNET interview on January 5, 2005, Bill Gates was asked, "Do you think intellectual-property laws need to be reformed?" Gates replied, "No, I'd say that of the world's economies, there's more that believe in intellectual property today than ever. There are fewer communists in the world today than there were. There are some new modern-day sort of communists who want to get rid of the incentive for musicians and moviemakers and software makers under various guises. They don't think that those incentives should exist." Is Gates calling Lessig and Barlow copyright communists? If not, who deserves to be called a copyright communist, and why? Come up with examples of people who you would call copyright communists, copyright liberals, copyright conservatives, copyright fundamentalists, and copyright libertarians, and explain your answers. (It might help for you to attempt to define those terms.)

Lesson 4 (Wednesday 21 January): Copyright Criminals

We'll watch Copyright Criminals in class today. Because it's a little bit long and I owe it to you to let you out of class on time, we'll start it a little bit before the official start of class, at 1:07:30. Keep the readings in mind as you watch: we'll discuss them in conjunction with the movie next time.

Homework for Friday 23 January

Read Cheryl Ball's articles on "Editorial Pedagogy" parts 1, 2, and 3. She's talking about editing a multimodal academic journal, and that's one type of work that some of you might be thinking about doing after graduating. Come up with some questions that you'll want to ask about working for the journal. Also keep in mind that your two comments on the 1/21 discussion forum posts and comments threads are due on Monday.
Lesson 5 (Friday 23 January): Multimodal Editing

We'll try to tie a few things together, now that we're finishing up our familiarization with the syllabus and assignments themed around contemporary controversies. Today’s reading links to the readings for Wednesday and the video we watched in terms of economic concerns and how those connect to the classroom: for Lessig and Barlow and even back to Lethem, the idea was who gets credit (points in the gradebook, money in compensation) for doing and sharing work, and who owns that work, and the same concern with work comes up with what you read from Cheryl Ball for today. So I'll start by asking you: can you make those connections more specific? How do those connections work for you, and the work you do for school or for your job or for your portfolio? We'll take a few minutes to discuss.

We'll talk about some of Cheryl's terms and remarks, too. She and Doug Eyman have received a $1 million grant to develop a multi-modal editing and publishing system to update Kairos for its next 20 years. I'll show you one of the pretty simple things I worked on, to help illustrate all the different concerns with multimodal editing (have a look at the HTML). I'll also show you couple additional webtexts, to give you a sense of the range of design and interactivity work that goes into producing the journal. (There’s a reason Cheryl notes that composing in multiple media takes about three to four times longer than composing in traditional linear print media.)

Cheryl dropped a lot of terminology—“workflows,” “recursive,” et cetera—that might be of interest. What stood out to you from the points she was making and concepts and language she was using? I’ll ask you to keep in mind that this class isn’t like the ones she describes—we’re not focusing on digital editing and publishing here—but there’s still stuff to think about there.

In small groups, come up with responses to three questions. One person should be your scribe and post your responses to the Open Forum in discussions, and one person should be your presenter and talk to the class about what you came up with. (Neither should be the same person as last time.) It’s acceptable and encouraged to look at the Kairos archives and to share links to other sites you’re interested in.

1. What would you say to Cheryl or ask Cheryl about what she teaches and her ideas about multimodal publishing, if she were here?
2. What questions do you have for me about working on Kairos?
3. What are some other examples of what edgy, interesting, well-produced and well-edited webtexts look like? What criteria make them good?

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Homework for Monday 26 January

Posted on: Friday, January 23, 2015 1:00:00 PM PST

Read InfoDev, "Knowledge Map of the Information Economy" 1–30. No later than the start of class, make sure you’ve left at least two comments on other peoples’ posts on the 1/21 discussions, following the criteria described in the discussion comments assignment. Be ready to talk about what we mean by "microwork" and other concepts in the reading.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC
Lesson 6 (Monday 26 January): Goldfarming and Microwork

Posted on: Monday, January 26, 2015 9:21:21 AM PST

This will be an easy discussion-type class. I'll begin by asking you to sum up the major points from the reading, including (but not limited to) definitions of goldfarming and microwork, and explanations of how they function.

I'll also cover some additional concepts: first, information is an experience good. Second, it's difficult to make digital commodities scarce. (Why? Which is more permanent: a Facebook post or your name—Ozymandias—carved in stone?) There's also the third person criterion: some people argue that economic activity is anything you can pay anybody else to do. (Can you pay anybody else to learn for you or enjoy a movie for you?)

I'll ask you to start by working in whatever groups you like (move around if you're so inclined) to extend some hypothetical examples of how goldfarming and microwork function or don't function as economic activities. As usual, have one person serve as scribe and another as presenter. Your task: use examples to explain to the class how something like goldfarming or microwork either fits into or works against the goals of the DTC major.

Here are some possible examples: what's the economic value of buying a Sparklepony, designing a portfolio landing page for a friend, giving a friend a Halo 4 Forerunner Anti-Materiel Z-390 High Explosive Munitions Rifle, writing an essay for a friend, trading Tyrrael's Might, asking a friend to produce a walk cycle animation for a class project, being a social media manager for eNotes.com, buying a Google ad for your portfolio, or any of the activities described by InfoDev? I encourage you to come up with your own examples, as well.

Read the Cory Doctorow short story "Anda's Game." On Friday, there will be a short notecard quiz on this week's readings.

Lesson 7 (Wednesday 28 January): Online Economics and Conflict

Posted on: Wednesday, January 28, 2015 1:00:00 PM PST

I'll begin with a non-quiz quiz, since I didn't announce it ahead of time, as a way for us to recall the content of the reading:

- What's Anda and Lucy's weapon of choice?
- What does Raymond drop on the ground to show Anda and Lucy?
- What do Anda and her dad lose?
- What do Anda and Lucy decide to do for Raymond at the end?

We'll check answers, and then we'll go into some more general, helpful discussion. What is "Anda's Game" about, conceptually? What historical real-world conflicts does it put into a science fiction context,
and why? What do you know about those conflicts, and how do they affect or not affect you? In other words, how is "Anda's Game" about more than goldfarming? Where does InfoDev say goldfarming usually happens, and under what conditions, and why does this matter?

Next, I'll ask you to work again in groups and come up with some extended responses to the following questions on the open discussion forums: How does "Anda's Game" remix the concerns of InfoDev, Lessig, Lethem, or Barlow? How does it shift the emphasis? What does "Anda's Game" say about cultural conflict? How might you connect or remix "Anda's Game" with North Korea hacking Sony for *The Interview*, last night's Facebook outage, Bitcoin, or other contemporary terms or concerns you come up with? Think forward to your midterm proposal, the historical focus of this class, and how "Anda's Game" remixes historical concerns: what kind of ideas does it give you for your midterm?

As usual, appoint one scribe and one presenter, and make sure the scribe puts everyone's names on your group's post, and make sure you select someone who didn't present last time.

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**Homework for Friday 30 January**

Read Tom Slee, "Egypt's 'Facebook Revolution'' and "More Egypt, More Facebook." Slee is maybe the flip side of what some people characterize as uncritical hype about social media. We'll talk about your own ideas and attitudes toward social media.

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**Lesson 8 (Friday 30 January): Synthesizing Weeks 1-3**

We'll take the reading quiz first, and check answers.

1. Wael Gonim said that without _____, there would have been no revolution.
2. In Egypt, social media drew in _____ people.
3. Slee thinks the Arab Spring revolutionaries had much in common with movements in _____.
4. Why *velvet*? Give a definition, explanation, or example.
5. What does Tom Slee see as one of the arguments against the popular Arab Spring narrative?

Then I'll ask you to work online in teams (you don't have to be sitting next to one another to do this). I've shared Google Docs that each team can edit: using those docs, collaboratively write up your answers to the following questions in four paragraphs made of complete sentences. Your paragraphs must use a total of at least four direct quotations (at least one from the readings, and at least two from your classmates) to support what they're saying. For convenience, you only need to draw from the discussion forums posts and comments from the Teams before and after yours—so Team 1 would use Team 6 and Team 2, and Team 4 would use Team 3 and Team 5.

1. What were some common themes and issues that stood out in the first three weeks' readings and responses? How can you link them together, and what was particularly interesting, and why?
2. What were some problems, questions, or difficulties that you saw linking some of the readings and responses, or that some of the readings and responses raised? Describe why they're problems, and how they're linked.

3. What were some possibilities raised by the readings and responses? What connections did or could you make outside of this class, and why are those connections useful or interesting or relevant?

4. Finally, in a fourth paragraph, draw together concerns from those three paragraphs into some ideas you have about how to represent them in a possible final project. What would it look like? What would it incorporate? What would people get out of this hypothetical project, if you showed it off at the DTC Showcase at the end of the year? Make sure it's clear how your paragraphs are linked together via transitions.

Homework for Monday 2 February

Read the Michael Joyce hypertext short story, "Twelve Blue." It's non-linear (or multilinear), so pay attention to how the story curves around and comes back to various themes and motifs, and pay attention to the details. There'll be a reading quiz that asks you about those details.

Lesson 9 (Monday February 2): Interactive Fiction

We'll start with the promised quiz:

1. Describe or identify one of Joyce's story's geographical settings.
2. Describe or identify two female characters in Joyce's story.
3. To what do you think Joyce's title refers, given some of the story's themes?
4. Describe how water functions in Joyce's story.
5. Describe how you navigated the story.

We'll check answers and talk some about the text. Next, I'll ask you whether or not "Twelve Blue" counts as a game. As a balancing example, I'll show you an online version of Zork.

Finally, I'll show you Twinery, and an example of a text I made with it. I'll ask you to work in small groups and see what you come up with on your own.

Homework for Wednesday 4 February

Read Leigh Alexander, "The Joy of Text," and Laura Hudson, "Twine, the Video Game Technology for All."

Experiment with the Twinery application (either the online version or the downloadable version). On your own or in groups of your choice (including the group you worked with today), post a playable link for
your Twining to the discussion forums for this week. Your Twining must have at least four nodes, three links, and one fork (a node with two links, where a reader must make a choice). If you're working in a group, I'll look for your Twining to be correspondingly more complex. To make your Twining usable, you'll need to export it as an HTML file and then attach it to your discussion board post.

Lesson 10 (Wednesday February 4): Midterm Project Ideas

We'll start by reviewing some basic HTML and playtesting strategies, including what we mean by "playtesting," and how HTML works.

Some of your classmates had excellent ways of making sure people could interact with what they wrote, which is always a good strategy. We'll talk about fallback solutions, as well. We'll look at a few stories.

Next, we'll review the midterm and final assignment.

For those stories we aren't able to pull up on the screen here, I'll ask the authors to review what they wrote about, and we'll pull up a Google Drive document and keep track of what people are thinking about doing for the midterm.

Homework for Friday 6 February

The readings for Friday will be our last reading focusing on today's concerns before we engage the historical aspect of the course starting next week. To prepare us for that work with perspective, the readings look back at people thinking about recent historical possibilities of the Web (which about the same age as most of you): where it had been, where it went, and where it could have gone.

Read O'Reilly and Battelle, "Web Squared" (1–12) and Dash, "The Web We Lost" and "Rebuilding the Web We Lost."

Lesson 11 (Friday February 6): Project Ideas Continued

The readings for today were either optimistic (O'Reilly and Battelle, in 2009 looking back at 2004 and thinking about possibilities) or pessimistic (Dash, a little over two years ago, thinking about the problems). I assigned both as histories of the present or ways to look at all the different pieces and circumstances that people had to enact and make choices about in order to get us to where we are today, keeping in mind Dash's excellent advice "to learn a little bit of history, to know your shit" so you don't wind up making all the mistakes folks have made before.
As histories of the present, what were the things the readings were most excited or frustrated about? What ideas have the other course readings given you?

I'll review some possibilities and show you some examples of past work.

- Alice, McKenzie, and Jessica collaboratively wrote, illustrated, and designed an interlocking series of choose-your-own-adventure stories (see linked example below) that reflected the course themes of hypertext, surveillance, intellectual property, and political change.
- Drew created a working exhibit of signal lanterns (you’ll see more about binary information and signaling in next week’s readings) with accompanying QR codes that he was able to show at the Palouse Museum. I don’t have his exhibit itself, but you can see the types of things he was doing: [http://youtu.be/7sMuUViFbiQ](http://youtu.be/7sMuUViFbiQ)
- If you’re interested in what Drew did, I’ve got that morse code key, and could try to get some money for a receiver and talk over ideas about getting it working and hooking it up to an application that could decode morse code, and thinking about how the application itself might work.
- The Pullman Historical Society is also interested in having us do some work for them designing markers for local historic sites, including old brick and cobblestone streets (we could tie in the idea of how information used to move at the same speed humans moved: what were the technological and communicative implications?), and the old stone church (before Facebook and Twitter, churches were some of the first managed social networks: what were the technological and communicative implications?).
- Jenna, Kayli, and Calvin put together a video that connected to the themes of economics, sharing information, and education: [http://youtu.be/uT1SHOGh_Gg](http://youtu.be/uT1SHOGh_Gg). The focus in that class was less historical, but there are ways you could approach similar topics fairly easily.
- Vanessa, Julie, and Jeremy crowdsourced a remix of the open-access text *Hamlet* as a way to think about plagiarism and influence: [http://jeremyjans.wix.com/hamleteffect](http://jeremyjans.wix.com/hamleteffect).

We'll see some stuff in the readings next week about information technologies in pre-literate or recently literate societies. Video game theorist Ian Bogost wrote an article for *The Atlantic* about an episode of *Star Trek* thinking about how cultures with language technologies radically different from ours would work, and one of my students based her project on that and the contemporary relevance of Plato's *Phaedrus*. (See also China Miéville's science fiction novel *Embassytown*.)

With those examples in mind, I’ll ask you to brainstorm in groups about ways you might fulfill the two basic requirements for the project (make something interesting relating to the course themes, and say something smart about it using academic sources). You can add to the shared document on your own, or I can put my notes on what you have to say up on the screen.

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**Homework for Monday 9 February**

Read Baron ix–xviii and Gleick 3–12 (in both cases, the introduction/foreword). A discussion comment is due Monday; to make it productive for you, you're welcome to start a thread in the Open Forum about possible ideas for the midterm, and say something smart about it using academic sources). You can add to the shared document on your own, or I can put my notes on what you have to say up on the screen.

The problem with sharing the Twine links in Blackboard (I discovered after looking at the code of a lot of the attachments people uploaded) is that Blackboard alters your HTML by replacing the tag SCRIPT with XXXX. Thanks, Blackboard. Big props and extra points to the folks who did playtest their stories and took an extra minute to skim the documentation and figure out how to make their stories playable. If you like, and if you want other people to see what you wrote, you can follow in their footsteps and read the
documentation on how to publish your stories. It takes maybe a minute to figure it out.

Lesson 12 (Monday February 9): The Historical Perspective

We’ll start today by returning to the document we collaboratively composed on Friday and drawing out more specifics: what media would the final version be in? What texts or resources would you need? What could you incorporate from your other classes?

Baron and Gleick seem to have somewhat different attitudes toward their subjects, and I’ll ask you for what your senses of their attitudes are. What does Baron’s incorporation of a mock EULA at the end of his introduction rely on?

Do you feel like we have the "hate-love" relationship toward technology that Baron describes. or are the emotions different? How much do we take it for granted, as Baron says?

What’s your impression of how Baron and Gleick seem to work against our taking technology for granted? How do their methods differ?

Are there ways you use technologies that are already out of date? What are some of the uses of technology that are new to you that people younger than you already take for granted?

Homework for Lesson 13 (Wednesday February 11): Starting Baron

Read Baron Chapters 1 and 2 ("Writing It Down" and "Teknofear"). I'll be curious to hear what people think of Baron’s sense of humor.

Lesson 13 (Wednesday February 11):

We concluded last time by talking some about technologies that people younger than you are more familiar with than you are. I’d like to hear some more of those responses: how are you being generation-gapped by the social uses of technology? What technologies have recently shifted into the category of "old people" technologies?

Part of the fear of writing as a technology is its permanence, and part is its impermanence, as Baron documents, and as other scholars discuss. That can cut both ways, as with this translation from Latin of the Roman poet Horace:

I have created a monument more lasting than bronze
and loftier than the royal structure of the pyramids,
that neither devouring rain, nor the wild north wind
  can destroy, nor the infinite
  succession of years and the flight of time.
I shall not wholly die and a greater part of me
will evade the Goddess of Death; ever I,
newly arisen, may be strengthened with praise so long
as the high priest climbs the highest hill with fate's sacrifice.
You'll hear that where the raging river roars
and where the parched god rules the people of the country,
powerful from a humble birth, I was first to bring the greatest words
to a crude language. Assume the pride
sought by we who have our claims to recognition,
and with the highest honor,
Goddess of Song, admit that you crown my head.

Baron traces a mostly negative attitude toward technologies of writing from Plato onward, but it's probably better to describe our attitudes as ambivalent. Why would people who favored scribal literacy or scroll writing have been hostile toward mass-produced printing?

How can we connect that to what Baron says about it not being "novelists, historians, or diarists, not government spies or private snoops, not sociologists or visiting space aliens" who use our online information, but rather people trying to sell things (8-9)? Do we agree? Why or why not?

What are some other points that seem to you important from Baron? Did people understand his critique of McLuhan's notion that "the medium is the message" (or, more accurately, "the medium is the massage")?

Anthony Grafton talks about the shift from the scroll to the codex. What are some possible reasons people might have been wary of the codex if it presented such technological advantages? (How many people here know where the term "file" as we use it today comes from?)

What are the technologies today that we seem to view with the most fear or skepticism?

(Here's an in-depth discussion of one.)

Homework for Lesson 14 (Friday February 13)

Read Gleick 13-27 (Chapter 1, "Drums That Talk").

Lesson 15 (Wednesday February 18): Pencils and Remediation

We'll begin by talking some about the readings, especially Baron on Thoreau. There's a common myth that NASA paid millions of dollars to develop the pressurized space pen, while the Soviet space program used pencils. There's a little bit of truth to this -- both space programs initially used pencils, but graphite dust,
broken tips, and flammable wood were considered to be hazards, so the Soviets moved to grease pencils on plastic tablets, and Paul Fisher developed his space pen on his own and eventually sold it to NASA. So why is the myth so appealing?

I'll show you a few different versions of a text. Do you have a preference for one over the other?

Sometimes people prefer low-tech, simple, and classic; sometimes they prefer high-tech, fancy, and modern. Sometimes people use a lot of high technology to make something look simple and classic. All of these are attitudes toward history and technology that this course asks you to be conscious of, especially as we approach the midterm. One of the things Baron talks about is how the phone remediates conversation: remediation is the act of representing old media in new media, and is one of the defining characteristics of new media. (Think about that old version of the Mac OS and what it referred to, and how the look of Apple's iOS has evolved.)

In groups, I'll ask you to come up with examples of:

- something that you like because it's simple, low-tech, and classic,
- something that you like because it's fancy, high-tech, and modern, and
- something that you like in the way it uses new technology to remediate old technology.

One team member should post your answers to the open forum in Discussions.

Stephen Dobson summarizes Bolter and Grusin's concept of "remediation" as follows:

<table>
<thead>
<tr>
<th>Immediacy</th>
<th>Hypermediacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window through</td>
<td>Window at</td>
</tr>
<tr>
<td>Knowledge rests upon transparency</td>
<td>Knowledge rests upon opacity</td>
</tr>
<tr>
<td>Viewer feels the medium has been erased</td>
<td>Viewer feels the medium call attention to itself</td>
</tr>
<tr>
<td>Reality (as presented through the window of the medium) is reached and experienced as authentic</td>
<td>Experience of the medium is itself an experience of the real and authentic</td>
</tr>
<tr>
<td>Unified perspective suggests linear view</td>
<td>Multiple and fragmented perspective suggests deviance and nonlinear view</td>
</tr>
<tr>
<td>The focused gaze</td>
<td>The shifting glance</td>
</tr>
</tbody>
</table>

If we have time, I'll show you a video of a highly remediated text (we can look for a bit and then skip to 6:43).
Homework for Lesson 16 (Friday February 20)

Posted on: Wednesday, February 18, 2015 1:00:00 PM PST

Read Gleick 78-105 (the first half of Chapter 4, "To Throw the Powers of Thought Into Wheel-Work," up to the portrait of Lady Ada Lovelace and the paragraph that begins, "A month later, she met Charles Babbage"). Complete the 2/20 Discussion Board post.

Lesson 16 (Friday 20 February): Babbage and Computation

We'll start by reviewing the sources you found for your midterm: I'll ask people for examples. Babbage had a concern with calculating numbers algorithmically instead of producing them to be looked up in books. As Gleick puts it, "Knowledge has a value and a discovery cost, each to be counted and weighed" (87). How does that discovery cost play out for you in your academic majors, both in terms of calculating knowledge and in terms of looking it up? As we've seen in Gleick, Babbage's focus was on moving from the materially expensive practices of storing and retrieving information (i.e., from books of logarithmic tables) to the practices of computing and producing information (through his analytical engine): Babbage wanted to shift the practices and the medium, from a print-based data-retrieval model to an on-demand algorithmic model. Changing the medium and the interface for information change the experience of the information. So: what's the difference between information and the experience of information? What are some examples of that difference?

Baron talked about the Phaedrus, an important dialogue by Plato (who also thought that slower technologies better fostered longevity of knowledge) that addresses concerns about how the experience of information changes in different media (think about how you've interacted with the information associated with this class: smartphone, listening to lecture, discussion, hand-writing, typing, browsing). I'll also talk briefly about some examples from Victor Hugo. On the other hand, we also understand that the timeliness of knowledge contributes to its value: think about electronic stock trades based on price differentials in different markets around the globe. Gleick repeatedly returned to the importance of timeliness of information, with his contrast of drums versus bonfires or messengers on horseback, and again with Babbage being concerned with how quickly his analytical engine could function, and even in having the books of logarithmic tables at hand to easily and swiftly look up rather than having to perform calculations by hand. So: what about other examples of how timeliness of information is important? Are the experience of information and the speed of information necessarily opposed?

Finally, it’s worth pointing out that many of Babbage's historical concerns exist today: where might we see a contemporary manifestation of Gleick's description of how "[i]n ordinary language, to describe even this basic process of addition required a great effulgence of words, naming the metal parts, accounting for their interactions, and sorting out interdependencies that multiplied to form a long chain of causality"? In other words, if Babbage was inventing not only a technology but also a vocabulary and mindset for working with that technology, where do we see parallels to that today? One interesting example might be in the similarity of certain problems to how, for Babbage, "[t]he carries could overflow and cascade through a whole set of wheels" (Gleick 98).
Homework for Monday 2/23
Posted on: Friday, February 20, 2015 1:00:00 PM PST

Read Baron 49-70, the chapter on "National Handwriting Day."

Leave comments on at least two peoples' most recent discussion forum posts.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Lesson 17 (Monday 23 February): Handwriting and Old Technologies
Posted on: Monday, February 23, 2015 1:00:00 PM PST

We'll start with the observation from last time that many of Babbage's historical concerns exist today: where might we see a contemporary manifestation of Gleick's description of how "[i]n ordinary language, to describe even this basic process of addition required a great effulgence of words, naming the metal parts, accounting for their interactions, and sorting out interdependencies that multiplied to form a long chain of causality"? In other words, if Babbage was inventing not only a technology but also a vocabulary and mindset for working with that technology, where do we see parallels to that today?

We concluded last time by talking about the concept of remediation: how new media self-consciously incorporate and attempt to duplicate old media. We saw evidence of that in Baron's Chapter 4, with handwriting-based fonts attempting to mimic the ways in which, in Baron's words, people imagine that "handwriting is creative, artistic, and personal," and "more immediate and visceral." Here's an example: I used this font to type up a version of an old hand-embroidered saying that my grandmother used to have hanging on her kitchen wall, and then used that font to have hand-embroidered a new version that now hangs in my kitchen. Fonts have emotions and ideologies associated with them.

Consider these two examples (GTR_Toronto_Suburban_timetable_1891.jpg, timetable67sched.jpg) of railroad timetables from Toronto, one from the 1890s and one from the 1960s. How are they different in terms of fonts? Those differences have everything to do with changes in ideology: fonts are ideological.

We'll watch a brief video about the history of typography. Then I'll ask you to do some work in small groups. Each group will have a movie genre assigned: go to Google Fonts (https://www.google.com/fonts) and find a font that would go well with that movie genre on advertisements for that hypothetical movie. Come up to the front and show the font to the class and briefly explain why it fits.

• Back left: supernatural horror
• Back right: teen comedy
• Middle left: espionage action adventure
• Middle right: foreign drama
• Front left: serious documentary
• Front right: spaceship battles science fiction

Next, we’ll talk some more about handwriting and handwriting fonts: what’s the contrast between Hamlet and the French aristocrats’ ideas about handwriting and Spencer's and Palmer’s ideas about handwriting? What should handwriting do? What would the "uniform handwriting system” do, even in its "laborious” qualities?
We talked some a while back about note-taking. A UW study showed that the way handwriting relies on the brain's Reticular Activating System when it makes complex shapes rather than the binary on/off of a keyboard press helps students perform better on memory tests, even after a week: the complex motions and their connection to thinking and language are less instinctive and less efficient and so more prone to the brain's filtering and organizing work.

The handwriting fonts are a perhaps good example of replacing labor with capital, and that's what all technologies do.

Finally, if we have time, we'll talk about how these concerns connect to a question: why is it that a painting can be forged but a piece of music cannot?

Homework for Wednesday 2/25

Finish Gleick's Chapter 4 (105-124, after the portrait of Lady Ada) on Babbage.

Lesson 18 (Wednesday 25 February): Babbage, Computation, Mechanization

I'll have an answer from you yet: does Hamlet like Katy Perry? Would he wear a Katy Perry t-shirt?

What's the contrast between Hamlet and the French aristocrats' ideas about handwriting and Spencer's and Palmer's ideas about handwriting?

What should handwriting do? What would the "uniform handwriting system" do, even in its "laborious" qualities?

We talked some a while back about note-taking. A UW study showed that the way handwriting relies on the brain's Reticular Activating System when it makes complex shapes rather than the binary on/off of a keyboard press helps students perform better on memory tests, even after a week: the complex motions and their connection to thinking and language are less instinctive and less efficient and so more prone to the brain's filtering and organizing work.

The handwriting fonts are a perhaps good example of replacing labor with capital, and that's what all technologies do: that's how computers calculate easily. Some people are concerned that by doing so, computers increase inequality. With labor and capital, how would that happen?

Consider the similarity of certain problems to how, for Babbage, "[t]he carries could overflow and cascade through a whole set of wheels" (Gleick 98).

The buffer overflow exploit is an example of algorithmic processes being performed to serve social ends: that's what hackers do. Babbage's concern with freeing information from long books of logarithmic tables and making it freely available on-the-fly is present today in the example of Aaron Swartz's suicide after
being pursued by the DoJ for making academic articles freely available. Lots of people today are concerned with what Gleick calls "abstracting information away from its physical substrate" (109). Are there examples of how you do or don’t do that as DTC majors?

What did your parents or grandparents think computers could never do? How were computers represented 30, 40, 50 years ago? I'll ask you to keep representations in mind as we talk further about Babbage’s goal and how the work of Ada Lovelace was absolutely essential to achieving that goal.

Something implicit in Gleick’s chapter is the concern with who in society has access to information and to manipulating information. The father of Ada Lovelace was Lord Byron, who had an affair with Lady Caroline Lamb, who publicly described him as "mad, bad, and dangerous to know." He also hung out at a villa in Switzerland with Mary Godwin, Percy Shelley, and Claire Clairmont, where Godwin—later Mary Shelley—was inspired to write a novel about the danger of technological advance. A number of people have drawn parallels between the monster in Shelley’s book and the artificial intelligence in William Gibson’s science fiction novel Neuromancer, which coined the term "cyberspace." Gibson would later co-author a piece of historical science fiction about Babbage’s Difference Engine.

Homework for Friday 27 February

Submit your midterm via the dropbox before the start of class. Bring your calendar or planner with you to class: you're going to meet with me one-on-one in my office next week to talk about how your midterm and how you're doing in the class.

Lesson 19 (Friday 27 February): Mid-Semester

Next week, you'll meet with me one-on-one in my office in Avery 341 to talk about how you're doing in the class. The meeting is required, so make sure you write it down and don't forget it. To allow time for our meeting, we will not be meeting as a large group next week. Today, I'll ask you to first fill out an anonymous online survey about what's working and not working for you in the course, and to then sign up for a meeting time with me.

Homework for Monday 9 March

Read Baron 71-90 (Chapter 5, "Writing on Clay"). Write a post on how old technologies continue to stay with us or resist us. (I go into more detail in the discussion forums.)
Lesson 20 (Monday 9 March): Working With Old Technologies

Posted on: Monday, March 9, 2015 1:00:00 PM PDT

We'll start with a breathless summary of a sci-fi melodrama as one option you can imitate today.

Then I'll ask you to work in groups of two or three to perform a variation of the exercise Baron describes on page 74. Your group should take one piece of clay, a stylus, and a sheet of waxed paper to work on. (Don't get the desks dirty, please: there are people in here after us.) Prepare a writing surface, and use that writing surface to attractively inscribe, write, or represent one of the following options:

- a breathless abbreviated summary of your favorite serial television show,
- a manifesto ("A specter is haunting digital America. It is the specter of . . . ."),
- a sonnet or set of haiku on a topic of your choosing, or
- a piece of creepypasta ("My son Morgan told me he couldn’t go to sleep . . . ").

Finish it NLT (no later than) 1:35 and exchange it with the team next to you (you'll want to carefully keep it on the waxed paper). The team next to you will have to be able to understand, interpret, and successfully explain to the rest of the class what you did.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Homework for Wednesday 11 March

Posted on: Monday, March 9, 2015 1:00:00 PM PDT

Read Gleick Chapter 5, "A Nervous System for the Earth" (125-143). There will be a reading quiz on Baron chapters 4 and 5 and Gleick chapters 4 and 5.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Lesson 21 (Wednesday 11 March): Group Work, Interfaces

Posted on: Wednesday, March 11, 2015 1:00:00 PM PDT

We'll have the quiz first, and check answers.

With the telegraph in Gleick, what are the ropes and levers and pulleys components of? What are the key and relay and sounder components of? What were your clay and stylus components of?

I'll show you who's in which project group, and then I'll ask you to work in your project groups to come up with an answer to a question on the discussion forums. What is an example of a user interface that did interesting things, and why were those things interesting?

Make sure you also exchange contact information in your project groups.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC
March 11 Reading Quiz

Put your name on an index card and try to answer any ten questions concisely.

1. What do supporters of National Handwriting Day characterize as its advantages over electronic communication?
2. What are the Spencer and Palmer methods, and what advantages do they offer?
3. The iPhone came out in 2007. What technology in Baron’s 2009 book does he oddly conclude Chapter 5 with?
4. What does Baron offer as one historical example of the use of graphology?
5. What did people in ancient Iraq and Sumeria use clay for?
6. What were some early technical difficulties of typewriters and line editors that Baron compares to the difficulties of writing with clay?
7. Describe Baron’s .sig file or the problem he had with it.
8. How did Ada Lovelace describe the French diplomat Talleyrand?
9. What should be written on the whole expanse of Ada Lovelace’s capacious jaw bone?
10. What did Ada Lovelace use to solve the peg board game?
11. What did the Chappes use ropes, levers, and wooden beams for?
12. What did Napoleon use his advanced communications technology to announce?
13. Who was dressed “in the garb of a kwaker, with a brown great coat on,” or why is that important?
14. Tell me about sauerkraut.

Final Project Team Assignments

I’ve divided you into teams according to the interests you expressed. Please see the Google spreadsheet for emails and share additional contact information as necessary. You should probably identify who holds what roles on your team. Planning for multiple roles and fallback roles is a good idea.

- **Team Tory:** education and socialization to differing standards of behavior and evaluation online and face-to-face; how people react and adapt to differences in language use and media use
- **Team Saul:** the dark side of the web; deviance and socially unacceptable behavior online; the lived human and material consequences of online addiction and abuse and crime; dangers and fears of digital technologies
- **Team Galen:** online and offline social behavior conventions; digital etiquette; relative levels of campus comfort and discomfort with emerging digital habits and bad manners; is there such a thing being “classy” in digital contexts?
- **Team Sharon:** #gamergate and its debates (real and fake); online mob mentality and filter bubble; the ways people pay attention to our material and online bodies and identities; how being different works online and IRL and the power differentials; the power of the social
- **Team D’Anna:** owning and stealing and sharing information online; ripping people off versus sharing what you’ve got versus claiming what you find; the four-factor fair use test; the hours you put into work and why you put in those hours versus copying; is it not OK to steal from some groups of people?
- **Team Sam:** the economics of online activity; what your life and online practices are worth in dollars; how people monetize or want to monetize your online activity; clicks as exploitation; what my privacy or identity is
worth in dollars; who’s getting exploited online, who’s getting paid, and what the difference is; who’s the product and what’s music or video worth if I’m the product being sold?

- **Team Ellen:** the real-life footprint of our digital interactions in e-waste, climate change, the digital divide, exploitation, and what it’s responsible to do as one approaches graduation: how can we stop spending against the world our grandkids will inherit, if we’re making it this bad already in our interactions with one another?

**Homework for Friday 13 March**

Read Baron 91-112 (Chapter 6, "When WordStar Was King"). Leave at least two comments on your classmates’ most recent discussion posts. We'll do another GDrive synthesis, so make sure to bring a networked computing device that you can access Google Docs with.

**Lesson 22 (Friday 13 March): Interfaces and Pre-Spring Break Planning**

Our plan today: to think about interfaces in ways that help you imagine how to present your final projects.

Dennis Baron, in his chapter on "When Wordstar Was King," calls consistent attention to the material interface, and to the labor of working with the interface: what these machines looked like, how much they weighed, the social relationships that went along with them. James Gleick hints at the same things, with Napoleon and the French proto-Internet of visual signaling. Information is work: sometimes that work is easy, and sometimes that work is hard. (Over break, I'll ask you to keep at the back of your mind: think about moments in movies that are easy to understand, and moments in movies that are hard to understand.)

Think about interfaces that aren’t screens. What aspects of your car are interfaces? What aspects of school are interfaces? (What does the word interface mean, and how is that related to what a medium does, or what media do?)

Work in your teams to imagine: given your team’s topic, what might your interface look like? Your description will probably be a two-step: you’ll need to collaboratively compose and edit and emphasize what aspects of your ideas you want to display, and then you’ll need to imagine what that might look like in formats that are surprising and engaging. By the end of class, you’ll have shared with me and your team members a smart and detailed description of your project plan.

**Homework for Monday 23 March**

On the discussion forums, share at least one web link for a reading that in some way supplements the work of the course: either something connected to the historical readings we’re doing, something related to the course’s themes, or a resource that will help supplement the work of one of the final project teams. The link should be unique and substantial and merit sustained engagement. Explain in your post how it’s
connected and what it's connected to, and why it's interesting.

Lesson 23 (Monday March 23): Interfaces, Continued

On Friday, we talked about interfaces in ways intended to help you imagine how to present your final projects. For those who weren't here, I'll ask for help from those who were present in summarizing our talk about interfaces, and we'll remind ourselves of the work we did and continue that work to get us all on the same page after returning from break.

Dennis Baron, in his chapter on "When Wordstar Was King," calls attention to the material interface, and to the labor of working with the interface: what these machines looked like, how much they weighed, the social relationships that went along with them. James Gleick hints at the same things, with Napoleon and the French proto-Internet of visual signaling. Information is work: sometimes that work is easy, and sometimes that work is hard. Think about interfaces that aren't screens. What aspects of your car are interfaces? What aspects of school are interfaces? (What does the word interface mean, and how is that related to what a medium does, or what media do?)

Continue to work in your teams to imagine: given your team's topic (listed on the Wednesday 3/11 Final Project Team Assignments announcement), what might your interface look like? Your description will probably be a two-step: you'll need to collaboratively compose and edit and emphasize what aspects of your ideas you want to display, and then you'll need to imagine what that might look like in formats that are surprising and engaging. Describe your ideas for both stages.

Look through the discussion board posts for today for resources that might be helpful to you. (Leah's general advice about looking for #hashtags relating to your topic is excellent.) Work again to contribute your ideas and edit one another's ideas. By the end of class, you'll have shared with me and your team members a smart and detailed completed description of your project plan.

Homework for Wednesday 25 March

Read Gleick 144-167 (Chapter 5, "A Nervous System for the Earth"). We'll talk about early networks.

Lesson 24 (Wednesday 25 March): Protocols and Networks

We'll talk about what was going on in the 18th and 19th centuries with the development of network hardware and what we might today call social software. Monday was the 238th anniversary, plus 6 months, of two network events: the U.S. inauguration of the office of Postmaster General, and the hanging of Nathan Hale as an enemy combatant, due to the protocols observed by the British crown.
The recent readings from Gleick and Baron, in their engagement with the codes people would use to communicate with each other across early networks and computing devices, are concerned with using language or mathematics as a protocol, a term that has multiple meanings (think politics, programming, diplomacy, etiquette, communications, et cetera). I’ll ask you for examples: what are some forms of those protocols?

Once we discuss, I’ll ask you to take about 10 minutes in small groups, back to front, to come up with some answers to the following questions (again, the usual scribe and presenter arrangement, making sure that those roles aren’t occupied by the same person as last time):

Back left and right: How do the historical examples we’ve been looking from Gleick and Baron at fit some of those definitions of protocol (you might need to do a little Googling or dictionary work to answer this)?

Middle left and right: what are some examples of the various forms of those protocols that we see on the internet and in your work in DTC classes or other classes today? (Do the things you study in English classes have protocols?)

Front left and right: what are some concrete examples of the problems and possibilities that protocols offer? (Again: please feel free to use the information from The Information or elsewhere.)

We’ll talk about your answers. Then I’ll show you an example of how using primitive network analysis might have affected Nathan Hale and others. We’ll talk more about these ways of sorting and organizing information. One use for protocols is for security and authenticity, as with a PGP key or an HTTPS certificate. What do those protocols do?

Homework for Friday 27 March

Read Baron 113-134 (Chapter 7, "Trusting the Text"). Recall from Wednesday that one use for protocols is for security (hello, Team Saul: this relates to your stuff), as with a PGP signature or an HTTPS certificate. Those protocols are intended to promote the authenticity of documents. Why would or wouldn’t a piece of art need to be verified as authentic, and what might its authenticity mean?

Friday, March 27th: Authenticity, Autographic & Allographic

Scarlett here! This is the plan for class today:

We will be continuing the discussion of protocols from last class, but in the context of authenticity. I have some visuals to show you which I hope will help to illustrate concepts from chapter 7 of Baron. My goal in showing you these images is help clarify the distinction between autographic and allographic qualities more clear. We’ll discuss these terms and get discussion going as a class while looking at the images.

Then I will ask you to get into your final projects groups (Teams Tory, Sharon, Saul, Sam, Galen, Ellen, and D'Anna) to collaboratively answer discussion questions in a shared GoogleDoc. Have one person in your group be the scribe. There are seven questions to choose from, and after giving you a chance to answer at least one of the questions we’ll go over them as a class.
How willingly do you trust digitized texts? What kinds of digitized texts are the most trustworthy? Do you trust print texts more in comparison to digital texts?

What makes currency trustworthy (credit cards, debit cards, cash, coins)? How do you think you have developed a sense of trust in currency?

How would you choose to convey an urgent, and private, message? What medium would you rely on and why?

What kind of text would you most like as evidence to defend you in a trial, should you be accused of wrongdoing?

List all of the different types of texts you can think of. Then, rank the types of texts in order of trustworthiness, or authenticity.

What are markers that indicate authenticity to you? What are the modern equivalents of the seal or other "symbolic objects", and how much do you trust them? According to Baron, even the signatures in his example were probably not made by the nobles themselves but by scribes.

Finally, I have one more question for you to answer as a group in the Open Forum. How does the concept of authenticity, and thus autographic/allographic qualities, play into the topic for your final project?

Homework for Monday 30 March

Read the first half of Gleick Chapter 6 ("New Wires, New Logic"), pages 168–188 in the hardcover edition. The page numbers change slightly depending on which edition you’re using, so read up through the paragraph that ends with "The data constituted a signal; the whole problem was ‘a special case of the transmission, manipulation, and utilization of intelligence.’ Their specialty, at Bell Labs."

Lesson 26 (Monday 30 March): Information Theory, Part 1

I'll start by posing a question: I've got two songs in mind. One is an old song by a band that I grew up listening to and used to like a lot, and brings back memories of hanging out in my friend's attic room. The other is a perhaps overly familiar song or played-out from a couple years ago that's at once quirky and catchy -- maybe an information theorist would argue that those terms imply each other. Which song is better? (Yes, it's a rhetorical question, meant to highlight the subject of today's work.) Here are the two songs again, in different form.

https://www.youtube.com/watch?v=jUwd737mioM
https://www.youtube.com/watch?v=9bZkp7q19f0
Which one is better? Can you tell how they might be different? Do these images carry more or less meaning than my descriptions? Am I illegally pirating music by sharing the spectograms of their waveforms? What would the RIAA say? (I've used these examples since 2012, and the second one is obviously showing its age. I'd be grateful to hear nominations for new examples.)

We'll do some experimenting with Soundhound, a song-recognition app similar to Shazam, which functions exactly in the way (it uses hashing) outlined in the Gleick chapter about Claude Shannon. (If you're interested, the app authors wrote an academic paper on how they did what they did.) In addition to the two songs—which have meanings, obviously, beyond their meaning to me or beyond their waveforms—we'll experiment with other music. One point I want to make here: according to Claude Shannon, who wanted to remove meaning in order to manipulate information, there's a profound difference between information and meaning, and some songs (or texts, broadly construed) have more meaning than others, which can interfere with analyzing them as information.

(By such a definition, when you're doing online research, you're not looking for meaning, because you can't look for meaning: instead, you're looking for information, which you convert into meaning. Which is more valuable: information, or meaning?)

I'll show a video about Claude Shannon's contributions to information theory that may help to remedy some of those confusions, but we can certainly still talk about those places and ideas that seemed difficult.

If we have time, I'll also ask you for your insights: In our age that follows in the wake of Shannon's innovations, what are the most popular information commodities today, and why are they popular in our world in the way logarithmic tables were popular in Babbage's world? We'll discuss before moving on, but it might be useful to think about what it means for information to be popular.

Homework for Wednesday 1 April
Read Baron 135-156 (Chapter 8, "Writing on Screen").
Lesson 27 (Wednesday 1 April): Early Writing on the Screen

We'll begin with three videos that engage the ways that technologies incorporate themselves into our social lives.

- The early days of email
- Texting turns 20
- Texting is killing language lol jk

After we watch these, we'll talk about how they operate as markers of our lived material experience of technology, and how the projects that your groups are producing also serve as those markers.

One question to consider: there used to be a phenomenon called "eternal September," which refers to the ways internet access opened up to more and more people. In the 1980s, students arriving at college got access to the internet, and so on email listservs and discussion boards, there would be an influx of N00Bs who would violate longstanding conventions and ask stupid questions (hence the rise of the FAQ) and frustrate long-term members of those communities. When AOL and Compuserve popularized internet access, that September influx started happening all the time: hence, "eternal September." We'll return to a question we asked before: what are ways that you see people younger or less experienced than you violating the conventions of digital technology use you're familiar with? What are some conventions that older generations hold onto but people your age are OK ignoring or changing?

Homework for Friday 3 April

Finish the second half of Gleick Chapter 6 ("New Wires, New Logics"), roughly 188–203, from the place where you left off to the end of the chapter. For me, this chapter in Gleick and the next two, about Claude Shannon and Alan Turing and the foundations of today's digital technologies, are the most exciting ones in the book; the moments when all this history and all these different concepts start to come together.

Lesson 28 (Friday 3 April): Information Theory, Part 2

We'll recap where we left off on Monday in talking about digital information, bits, and hashing. We'll then continue with the rest of the film about Claude Shannon.

We've already talked some about what makes information valuable, and we'll try to make some connections among the notions of value, scarcity, and reproducibility, especially in relation to the concepts of allographic and autographic writing that Scarlett brought up. What are the most popular information commodities today, and what are the most sought-after information commodities today, in the ways that logarithmic tables were sought after in Babbage's day? What do people want information to do?

Who were Russell and Gödel, and why were they important to Shannon's work?
We’ll wrap up by trying to apply the second half of Chapter 6 in thinking about symbols: as Gleick observes, some symbols carry more information than others. Think about some basic symbols—say, the 1 and the 0. What do they mean? What information do they convey? Do letters in the English alphabet carry more information than 1s and 0s? What about Chinese ideograms? Emoticons and emoji? What does ”>” mean, and in what context? Are chat or comment or discussion board avatars symbols? Logotypes?

Symbols seem necessarily allographic. Can a symbol ever be autographic? Is the Mona Lisa allographic or autographic? (What does the Mona Lisa mean?)

Homework for Monday 6 April

Read Baron Chapter 9 (”Everyone’s an Author”) pages 157-181. Baron’s pretty easy, I think, so I also want you to go back to Gleick: review Chapter 6 in Gleick (”New Wires, New Logic”), because it sets up the next couple of chapters, and compose a discussion board post. If you choose the stock option, here’s your question:

Describe, in specific and detailed sentences, the most challenging or complex or difficult concepts from Chapter 6 in Gleick and why they’re challenging, perhaps particularly in the references to Boole, Russell, Gödel, Maxwell, and others. What words or concepts in particular are complex or problematic? I pose these questions because I know that difficulty is often a way in or point of access: if you figure out what’s difficult about a text, you’ve figured out its problem. That lets you investigate the problem.

If you’re a designer, an artist, a videographer, a musician, or somebody who works in media other than text, I’d love to see how you’d represent and upload to the discussion board or link to your Web space the most complex or difficult problem posed by Gleick. Can you illustrate or animate Gleick?

Lesson 29 (Monday 6 April): Online Identity, Reliability, Memory

There are some tangential connections between Gleick and Baron here: Gleick is concerned with provability and truth in Gödel’s logic, and there’s a different sort of provability and truth in blog reliability. Baron, as usual, writes in a way that makes it seem he’s bewildered by blogs.

Baron’s example of the destruction of the library of Alexandria seems important because of the scale of the loss of knowledge. It raises the question we’ve discussed before: which is more permanent, writing stored in books or writing stored online? As has been pointed out, on the one hand, many of the surviving texts we have from the Roman empire were either carved in stone, or carved in wood and preserved in English bogs, or written on papyrus or animal skins in Egypt and stored in an arid climate. On the other hand, we tend to think of online writing as evanescent: blog posts and tweets and statuses that disappear; hard drives that can be erased.

The blog of my friend John Lovas is one example: from 2004 to 2005, he didn’t update it, leaving as its
last status a post called "Beginnings" with a poem by Gerard Manley Hopkins: [http://www.bartleby.com/122/12.html](http://www.bartleby.com/122/12.html). That post and his blog are both now gone, and not even recoverable via The Wayback Machine ([https://archive.org/web/](https://archive.org/web/)), because John passed away from cancer in 2005, and what remains of his memory are some comments he left on my and others' blogs and this moving tribute to him: [http://faculty.deanza.edu/johnlovasfestschrift/](http://faculty.deanza.edu/johnlovasfestschrift/). What are other examples of online memorials?

In groups, take a few minutes and use [https://archive.org/web/](https://archive.org/web/) to find an old archived copy of a Web site that's very different from what it looks like today. Post your findings (the URL for the new one and the old one, plus a brief explanation of why the differences are interesting) to the Discussion Forum for today.

(My easy and obvious attempt: here's the [White House today](http://www.whitehouse.gov) and the [White House fifteen years ago](http://www.whitehouse.gov)).

I've been blogging off and on since June 1, 2003 ([http://vitia.org/wordpress/2003/06/page/4/](http://vitia.org/wordpress/2003/06/page/4/)), and doing so helped me on the job market, but it also got me into some arguments with people and I said some dumb things. In that regard, Baron's citing advice from Rebecca Blood (178) seems important.

This happens IRL as well, of course, as with the famous incident with Salman Rushdie's novel *The Satanic Verses*, wherein Rushdie had to go into hiding for 10 years because the Iranian government issued a fatwā against him for slandering the prophet Muhammad. (This was also the case with Charlie Hebdo, and with the Dutch cartoonists and the *al Qaeda* PR magazine *Inspire.*) We'll see more of these concerns in Baron's Chapter 11 ("The Dark Side of the Web").

I'll make sure we set aside some time at the end of class to watch and discuss another perspective on these concerns of public memory in the first 7:13 of this video: [http://youtu.be/UoH3dlKZ-A0](http://youtu.be/UoH3dlKZ-A0). We'll return to discussions of permanence and evanescence, and of two poems I showed you much earlier in the semester.

Percy Bysshe Shelley, "Ozymandias"

I met a traveller from an antique land
Who said: "Two vast and trunkless legs of stone
Stand in the desert. Near them on the sand,
Half sunk, a shattered visage lies, whose frown
And wrinkled lip and sneer of cold command
Tell that its sculptor well those passions read
Which yet survive, stamped on these lifeless things,
The hand that mocked them and the heart that fed.
And on the pedestal these words appear:
"My name is Ozymandias, King of Kings:
Look on my works, ye mighty, and despair!
Nothing beside remains. Round the decay
Of that colossal wreck, boundless and bare,
The lone and level sands stretch far away."

Horace, Ode 3.30

I have created a monument more lasting than bronze,
And higher than the royal site of the pyramids,
Which neither harsh rains nor the wild North wind
Can erode, nor the countless succession of years
And the flight of the seasons.
I will not entirely die! and a large part of me will avoid the grave.
Constantly renewed, I will grow in the eyes of posterity,
So long as the Pontifex and the solemn Vestal visit the Capitoline.
Where the river Aufidus roars, and where Daunus in the dry summers, ruled his rural folk,
I, risen to greatness from humble beginnings, will be renowned
As the first to adapt the Aeolian verses to Italian meters.
Take the well-deserved pride, Melpomene,
And freely grant me the wreath of Apollo for my crown.

Homework for Wednesday 8 April

Leave comments on two of your classmates’ 4/6 discussion board posts. Read Gleick Chapter 7, "Information Theory" (204-232 in my print version), wherein Claude Shannon meets Alan Turing.

Lesson 30 (Wednesday 8 April): Turing and Computability

The takeaway from Turing should be that meaning can be computational. Turing, as Gleick indicates, is famous for two things: the Turing Test and the Turing Machine. Turing’s challenge with the Turing Test led to the creation of Eliza in 1966, who was the namesake for Eliza Cassan in the Deus Ex: Human Revolution video game. (That video game does some interesting things with technological instrumentality and technological determinism.) You’ve likely encountered more sophisticated chatbots at customer support Web sites; another version is Cleverbot. (And then there are the dueling Cleverbots.)

The concept of a Turing machine is a little harder to grasp from Gleick, so we’ll watch three videos: the first on how an actual physical Turing machine would work, the second on the implications of Turing machines, and the third showing the logical functioning of a Turing machine. Note while we watch that someone built the actual, mechanically functioning version (i.e., the analog version) of the machine only recently: the digital version preceded the analog version. Keep in mind while we watch that the Turing machine functions by the same processes that Shannon is concerned with: reading, writing, and copying.

Some questions for discussion: first, as Gleick points out, Turing demonstrated (following Gödel) that some numbers are uncomputable. Does that mean meaning is uncomputable? Where does meaning live in information? How would a highly intelligent chatbot differ from how we talk to one another in class?
What are we expecting from experiments with artificial intelligence?

If we have time, I'll talk some about the idea of information-as-entropy and how that might be an implication of differentiating information from meaning. As I noted last time, Jorge Luis Borges has other short stories that are highly relevant to this course: "Funes the Memorious" is about storing information; "Pierre Menard, Author of the Quixote" is about the distinction between meaning and information when information is duplicated but meaning is not; and "The Garden of Forking Paths" is a difficult and remarkable story about navigating information and possibility.

Finally, someone has figured out how to make a fully functional universal Turing machine out of a deck of Magic: The Gathering game cards. For those interested in puzzles, Google celebrated Alan Turing's 100th birthday on June 23 of 2012 by posting a set of Turing puzzles: can you figure them out?

Homework for Friday 10 April

Read Baron 183-206 (Chapter 10, "A Space of One's Own").

Lesson 31 (Friday April 10): Facebook and Privacy

The above image may call to mind some of the business practices of social media platforms. Baron's chapter touched briefly on the business of privacy and how it relates to social media. We know that social media platforms exist to make money, but that's not the only reward. Think about the social media we've talked about (SnapChat, Instagram, Twitter, Facebook, etc.): what happens if we try to wipe traces of ourselves from those media? What remains? What's it worth, and to whom?

Baron's chapter treated Wikipedia as somehow similar in nature to social media like Facebook, Twitter, and MySpace. What are the similarities you see, and what are the differences?

I think there's a link between the practices we see in this graph:

http://mattmckeon.com/facebook-privacy/
and the practices we see in this article:

http://www.livescience.com/32950-how-accurate-is-wikipedia.html

We'll talk about the value of different forms of information.

There are different types of economic value: cash value, the value of the skills you're learning, marketing value, recreational value (what kind of value are you getting when you play Candy Crush, and what kind of value is Zynga getting from you?), artistic or aesthetic value, use value, social value, political value: how do these different types of value show up in the different things Google and Facebook and Wikipedia do? In teams of your choosing, identify on today's Discussion Forums at least two possible examples of these different types of value and where they come from. Describe how these different types of value move through the world: who's producing the product or service that creates that value, who's distributing the product or service that creates that value, who's using the product or service that creates that value, and who's remixing or mashing-up or reproducing the product or service that creates that value? Who are the different people or groups who are getting value out of that product or service at each point in that cycle?

Homework for Monday 13 April

Read Gleick, the first half of Chapter 8 ("The Informational Turn"). It's pages 233-252 in my edition, but if the pages don't match up in your edition, read up through the paragraph that concludes with the sentence, "They had become, in effect, a mental model of a maze—a theory of a maze."

Lesson 32 (Monday April 13): Order and Information

Here's a question we'll start and end with today: How does Gleick's perspective about order influence (or not influence) the designs and tools you create as DTC majors? Keep that question in mind and listen for the order: https://youtu.be/4Cs_f3GupCo

On page 263, Gleick mentions in passing McLuhan's famous quotation that "the medium is the message." Use your DTC chops and web-browsing familiarity to demonstrate to your classmates using various media and the computer at the front of the classroom one smart and aesthetically interesting example of Shannon's definitions of information as:

- "uncertainty" (219; middle row left and right),
- "difficulty" (219; front row left and right), and
- "surprise" (247; back row left and right).

Make sure you're able to explain the connection between what Gleick and what you show, and we'll talk about your examples.
Homework for Wednesday April 15

Posted on: Monday, April 13, 2015 1:00:00 PM PDT

Read Baron 207-226, "The Dark Side of the Web." You have two options for the discussion board post: either find a link that discusses or describes a "dark" aspect that Baron didn't discuss, and describe how it fits into what we've been talking about (be respectful of your classmates please, and warn if you're linking to extreme material), or share a link that you think represents an under-acknowledged or less well known aspect of the "bright" side of the web.

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Homework for Friday 17 April

Posted on: Thursday, April 16, 2015 1:18:21 PM PDT

Read the second, shorter half of Gleick Chapter 8 ("The Informational Turn"), pages 233-252. Also read the Borges short story "The Library of Babel" and the very short Quine piece "Universal Library."

Posted by: Mike Edwards
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

Lesson 34: Order and Information, Again, Again

Posted on: Friday, April 17, 2015 1:00:00 PM PDT

Some questions to think about as we move through today's lesson. These might help you draw together some of the different concepts.

- What's the point Gleick's making about the club that had two different ways to pronounce ratio? What's important about that word?
- How does reading contribute to meaning-making in the library Borges describes?
- How does reading contribute to meaning-making in the library Quine describes?
- What does Quine have in common with the first chapter from Gleick on talking drums?
- What does Borges have in common with the Copyright Criminals video about remixing?

I'll show you a trick that works in some of the ways Gleick and Quine talk about: think of a number between 1 and 60. Find that number on these squares:

![Squares Image]

Volunteers: which squares (green, black, purple, yellow, red, blue) does your number show up on?

I'll show you a poem I wrote that works in precisely the same way. Computers, as we saw in the Turing machine videos, simply count. That's what the poem does too.

Video 1: binary numbers explained
**Video 2: binary numbers and computers**

I’ll explain how I wrote the poem and what it does, and I’ll ask you the five bullet point questions again, and to try and make some connections.

 Posted by: Mike Edwards  
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

**Homework for Monday 20 April**

 Posted on: Friday, April 17, 2015 1:00:00 PM PDT

Read Baron Chapter 12, "From Pencils to Pixels" (227-246). We'll use Baron to talk about jobs and careers working with the topics you've been learning about in this class.

 Posted by: Mike Edwards  
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

**Lesson 35: Pencils, Pixels, Careers**

 Posted on: Monday, April 20, 2015 1:00:00 PM PDT

Dennis Baron talks about a "new economic model" in Chapter 12, and complains that increasingly freely available information means less economic compensation. He wraps up his book by reflecting on the future of digital writing, in a way similar to how we think about the future of digital technologies in this class. He notes that information is increasingly "the commodity" (241), although that seems to contradict the points he makes about how information technologies have material aspects we frequently ignore: computers require energy, which means in many cases burning fossil fuels and coal, which means increasing pollution, which has the consequence of global climate change that is already leading to extinctions and environmental catastrophes. Technologies are changing the world in many different ways.

So what does the future hold for you? There are the problematic consequences: what are the hopeful potentials? I'll show you a brief video by Andrew McAfee, and as you watch it, I’d like you to keep in mind the question: how can this course help you professionalize? How might you represent to potential employers the fact that you worked as a team to put together a multimodal final project, and how might you get that project to be taken seriously in the future world represented by Baron and McAfee?

I'll give you a few minutes to work in groups and come up with an answer to an imaginary job interviewer's question: "How do the theoretical and historical perspectives from DTC 375, including the group final project you worked on, increase your value to me as a prospective employer in fields working with digital technologies?" Make sure you come up with a title for the position you’re applying for.

 Posted by: Mike Edwards  
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC

**Homework for Wednesday 22 April**

 Posted on: Monday, April 20, 2015 1:00:00 PM PDT

Read Gleick Chapter 14 ("After the Flood"), 324–354 in my edition. There will be a reading quiz on Gleick Chapters 8 and 14 and Borges and Quine.

 Posted by: Mike Edwards  
Posted to: [M] Language, Texts and Technology 2015-SPRI-PULLM-DTC-375-1723-LEC
Lesson 36: Final Project Work

We'll start with the reading quiz. Choose six of the following ten questions to answer.

1. What's the relation between the Gnostic gospel of Basilides and the true story of your death?
2. What's the relation between the father of the narrator of the Library of Babel and the MCV?
3. What shape are the galleries in the library Borges describes?
4. According to Borges (not Quine), the library is _____ and _____.
5. Quine says the library could get from using 2500,000 volumes down to 131,072 volumes by using ____ of about what length?
6. Briefly paraphrase Turing's imagined response to the instruction to write a sonnet on the subject of the Forth Bridge.
7. What is the least integer not nameable in fewer than nineteen syllables?
8. What are ILLUMINATE, CHERRYTREE, and TOOTSWEETS?
9. What's the most interesting thing you learned from the last chapter from Gleick?
10. What's the most important thing we neglected to read but should have been on the syllabus for this class?

We'll check answers and briefly talk about the reading, and then we'll discuss the final reflective assignment and I'll give you some materials you can use to complete it.

Homework for Friday, Monday, and Wednesday 4/29

You've got Friday 4/24 and Monday 4/27 as course drops to get the group portion of your team's final project in presentable working order for the DTC showcase on Tuesday 4/28. On Tuesday 4/28, you are required to show up sometime between 2:30 and 6:00 pm for the showcase, for at least 30 minutes. I need at least one person from each team to be present for set-up at 2:30 or 3:00 and at least one person to be responsible at 5:30 or 6:00 for taking home whatever team equipment won't stay with me to be graded.

For Wednesday 4/29, read Gleick Chapters 15 and 16 ("New News Every Day" and "Epilogue," 398-426). On Wednesday and Friday we'll wrap-up and do work on your individual reflections. You'll give informal presentations of your final group projects and how they connect to the course themes to the class.

Lesson 37: Wrap-Up

Your only homework for Friday is to plan, with your final project team, a 4-6 minute presentation to your classmates connecting your team's project to the themes of the course, and highlighting the major points of the project. I'll ask you to use the computer and overhead projector to do so. Your classmates will rate your projects, and that will be part of your final grade.
To get you thinking about that, I'll ask you to start out by working in groups on the discussion forum to describe, in 3-5 sentences, what the big concepts of the course have been and how they fit together. Take about 10 minutes and be ready to share with the class. You can quote and use what you come up with in your final reflections: that's a sort of concluding point you might work toward. The envelopes I handed out the other day when you did course evaluations were one possible starting point, so part of what your final reflection can do is trace the trajectory from start to finish.

I'll also ask you about key points from Gleick, who offers some good ways to draw all this together.

If we have time, we'll also talk about the takeaway from Gleick, as compared to Anil Dash: Gleick makes the argument that the rise of the printing press helped to make information more redundant and therefore more durable. In "The Web We Lost," Anil Dash points out an opposite tendency: that while digital information is easily duplicated and easily manipulated, it is just as easily deleted or walled off—and what's durable is not actually information, but media. (He even points out that when we stop using a certain medium, we lose the information associated with that medium.) Dash's perspective suggests that the most durable information is the information that everybody internalizes—perhaps, for example, the Iliad and the Odyssey from Homer's time. (This is why memory was so important to the ancients.) What do you think? Between Gleick and Dash, who seems more correct? Does Gleick's historical perspective offer any possible solution to the future problem Dash describes?

Lesson 38 (Friday May 1): Final Projects

The individual reflection component of your final project is due in the dropbox (linked below and also in Content) no later that 5:10 PM on May 7, the end of the final exam period for this class. Of course, I would be very happy to have you turn it in earlier.

Our last task of the semester is to watch your team presentations (no longer than 6 minutes) and rate them all. The scores are from 1 to 5 (5 is the best) in each of three categories, for a possible total high score of 15 points. I'll average your scores to assign the peer-review group grade.