

THE MEANING OF INFORMATION TECHNOLOGY

ATLS 2000-002 COURSE SYLLABUS

*"Any fool can know. The point is to understand."
— Albert Einstein*

ADMINISTRATIA

Instructor: Christopher Carruth // christopher.carruth@colorado.edu
Teaching Assistant: Grant Oberholzer // grant.oberholzer@colorado.edu
Course Location: ATLAS 100
Meeting Times: Tuesday / Thursday, 12:30pm - 1:45pm
Course Length: January 12th - April 28th
Final Exam: TBD

Office Hours // Location: Thursdays, 2pm - 3pm, ATLS 225f or Pekoe's
Virtual Office Hours: Happy to chat via phone, Skype, or Google Hangout by appt.

RESOURCES

Edmodo URL (Be patient while we approve your join request): <https://edmo.do/j/3sm7jx>
Grading Sheet: <http://bit.ly/1mLOisE>

Texts: No textbooks. Readings and other material will be made available via Edmodo.
Note: I reserve the right to swap/add-in reading and other materials last minute.

Equipment: Please, by all means, bring a laptop/cell-phone to class. We'll be using them. That said, if they become a distraction - something defined solely by myself and your illustrious TAs then you lose your privilege. Be responsible. Be an adult. Be present.
Laptops may be checked out through [OIT](#) if necessary .
Additional items may be checked through the [ATLAS Institute](#).

WELCOME!

In this course we'll examine the mutual influence of technology, media, and society. As such, we'll examine our increasingly digital lifestyles through a variety of lenses and, in this manner, the course is a landscape course: we explore a variety of topics over the course of the semester. While each lecture can stand on its own, there will be key themes woven throughout the course that we'll frequently touch upon. You'll be challenged to think critically about the history of technology, contemporary issues in the field, and potential future implications. In this manner, we'll not only explore "how does it work" and "where does this come from" but "why is it here" and "how does it impact us as individuals and as a society".

We'll be philosophical. We'll be creative. We'll be controversial.

You will be called upon to relate the topics to your own interests such as they are professionally, academically, and otherwise. In this manner, the course seeks not only to impart knowledge, but to emphasize the relevancy of technology in your life, in our lives.

There will be group work. There will be end-of-class reflections. There will be various methods of assessment. And, again, there will be polemic discussions. To earn high marks, you are expected to participate. Indeed, whether online or in-class, that's the one thing I ask of you as a student, as a living, breathing, body, to contribute, to raise your voice.

COURSE OBJECTIVES

- Student gains, or deepens, an understanding of contemporary issues surrounding technology usage, trends, concerns, benefits, and forms of expression.
- Student will critically analyze technology's impact from multiple vantages: professionally, personally, academically, environmentally, artistically, politically, culturally, etc
- Student develops critical perspectives on course topics as well as the ability to articulate said perspectives verbally and in writing.
- Student has a familiarity with the history of information technology, its significant moments, its major contributors, and contemporary trends.
- Student has a working understanding of topics and vocabulary relevant to information technology (e.g. HTML, CSS: students should know what these acronyms stand for).
- To begin to the transition from passive consumers of technology, arts, and media to active creators.

KEY TOPICS:

- The History and Future of Technology, Computing, and the Internet
- Privacy, Security, and Identity
- Media, Gender and Representation
- Digital Divides, Social Justice and ICT4Ds
- Social Media (Platforms, Impacts, Activism, etc)
- Theorists (McLuhan, Plato, Baudrillard, Barthes, Foucault)
- Technology's influence on various industries and creative endeavors (Music, Film, Writing, Photography, Gaming)

As technology is constantly changing, new topics may be introduced in favor of others. Additionally, if there are any topics that are left out and you feel they are crucial to your understanding, then by all means, make a suggestion.

COURSE OVERVIEW

Action items are meant to be completed by the date listed.

Resources are listed for the date in question (e.g. Read the "Syllabus" for the 1st session).

Assignments are due on the date listed below (parenthetical listing).

Note: *I will make every effort to stay as true to this syllabus as possible, yet it is likely the dates of lectures, particularly guest lectures, will change. As I know, so will you.*

Week	Topic	Tuesday Session	Thursday Session
1	Intro	Course Introduction	How Computers Work
1/12	//	Action: 1) Take Myers-Brigg Type Indicator (MBTI) Personality Test.	Action: 1) Grading contracts completed.
1/14	Computing	2) Complete bio in Edmodo: (Major(s)/ Minor(s), website/portfolio, MBTI type Resources: 1) MBTI Test 2) Read: Marshall McLuhan's, "The Medium is the Message" 3) Technological Determinism Wiki 4) Course Syllabus	Resources: 1) Moore's Law Wiki 2) Moore's Law is Dead: The Future of Computing?



<p>2 1/19 1/21</p>	<p>The Internet // The Future of Technology</p>	<p>The Internet</p> <p>Action: 1) Assignment #1: Explain how the Internet works. Feel free to use software, collage, draw, scan, whatever works for you. At a minimum, include: files, servers, computers, mobile devices, and HTML.</p> <p>Resources: 1) Skim: Bush, "As We May Think" 2) Read: Carr, Is Google Making us Stupid?</p> <p>Optional: 1) Net Neutrality by John Oliver, Last Week Tonight (Warning: adult content)</p>	<p>The Future of Technology</p> <p>Action: 1) Assignment #2: State the technology(s) you use most and why. Next, describe where you think said technology(s) will be in the future, elaborating on your reasoning.</p> <p>Resources: 1) Skim: Pew Internet "US Views of Technology" 2) Read: Business Insider's, "The next 20 years..." 3) Skim: HBR, Why Inspiration Matters</p>
<p>3 1/26 1/28</p>	<p>Wikipedia and Truth // The Singularity</p>	<p>Wikipedia and Truth</p> <p>Action: 1) Assignment #1 due prior to class. 2) Assignment #3: Focus on the current "Articles for deletion" wiki and write an elaboration on your stance regarding the Inclusion/Deletion debate.</p> <p>Resources : 1) Read: MIT Tech Review, Wikipedia and the meaning of truth 2) (Skim) Schiff, "Know it All"</p>	<p>The Singularity</p> <p>Action: 1) Assignment #2 due prior to class.</p> <p>Resources: 1) Read: Vinge What is the Singularity? (compliment that with Kurzweil's take) 2) Watch: "Singularity" playlist</p>
<p>4 2/2 2/4</p>	<p>Film review "Her" // Virtual Reality</p>	<p>Her</p> <p>Action: 1) Assignment #3 due prior to class. 2) Assignment #4 - Reaction to "Her", focusing on the feasibility of not only the technology, but the portrayal of human and computer interactions as depicted in the film.</p> <p>Resources: 1) Watch Film "Her" Disclaimer: Adult language & content.</p>	<p>Virtual Reality: From Plato to Baudrillard</p> <p>Resources: 1) Read: Plato's "Allegory of the Cave" 2) Skim: Baudrillard, "The Precession of Simulacra" 3) Optional: Watch "The Matrix"</p>



<p>5 2/9 2/11</p>	<p>Representation in the Digital Age // No Class</p>	<p>Representation in the Digital Age</p> <p>Action: 1) Assignment #4 due prior to class.</p> <p>Resources: 1) Skim: Nakamura, "Cyberrace", "Queer Female of Color", "Gender and Race Online", "Identity Tourism" 2) Optional, Watch: a) "Miss Representation" (On Netflix) b) "The Mask You Live In" (Norlin Collections - we'll screen a bit in class)</p>	<p>No Class</p>
<p>6 2/16 2/18</p>	<p>Text // Music</p>	<p>Text</p> <p>Resources: 1) Read: Barthes, "The Death of the Author" 2) Skim: Ong, Chapter 5 in "Orality and Literacy": "Print, Space, and Closure"</p>	<p>Music</p> <p>Resources: 1) The Guardian, "The Day the Music was Set Free" 2) Watch: Michael Masnick of Techdirt, "The Trent Reznor Case Study"</p> <p>Optional: 1) New Yorker: Spotify: Friend or Foe?</p>
<p>7 2/23 2/25</p>	<p>Film // Digital Art</p>	<p>Film</p> <p>Resources: 1) Read: Benjamin, "<u>The Work of Art in the Age of Mechanical</u>" 2) Read: Deadline's, "<u>Steven Soderbergh's State of Cinema talk</u>"</p>	<p>Digital Art (Guest Lecture)</p> <p>Resources: TBD</p>



<p>8 3/1 3/3</p>	<p>Photography // Midterm Review</p>	<p>Photography</p> <p>Action: 1) Assignment #5: Craft a response to Sontag's "On Photography" Take a stance on whether her thoughts still apply in the digital age.</p> <p>Resources: 1) Read: "<u>In Plato's Cave</u>" by Susan Sontag in "On Photography"</p>	<p>Midterm review</p> <p>Action: 1) Bring questions and concepts to discuss during this review period which will largely be <i>unstructured</i>.</p>
<p>9 3/8 3/10</p>	<p>Midterm // Gaming</p>	<p>Midterm</p> <p>Action: 1) Bring a tool to write with and ensure your bladder is empty. 2) Assignment #5 is due.</p> <p>Optional: 1) If you wish, headphones y something small to plug them into.</p>	<p>Gaming (Guest Lecture)</p> <p>Action: 1) Assignment #6: Craft a critical analysis of a videogame of your choosing. Think of this as a brief critical analysis of a book for an English class, but using a video game instead. Analyze a particular aspect of the game such as: the game narrative, game characters, interactivity, etc.</p> <p>Resources: TBD</p>
<p>10 3/15 3/17</p>	<p>Social Media // Foucault and Facebook</p>	<p>Social Media</p> <p>Resources: 1) Watch: <u>Clay Shirky: How social media can make history.</u> 2) Read: Gladwell, <u>Small Change: Why the revolution will not be tweeted.</u> 3) Read: Heritage, "<u>Social Media and the Boston attack: the good, the bad and the confused</u>"</p>	<p>Foucault and Facebook</p> <p>Action: 1) Social Media Challenge begins. (See Appendix A.) 2) Assignment #6 is due.</p> <p>Resources: 1) Read: <u>Foucault and Social Media: Life in a Virtual Panopticon</u> 2) Skim: <u>Online Social Networking and Addiction—A Review of the Psychological Literature</u></p> <p>Optional: 1) NYT, "<u>Facebook is Using You</u>"</p>



11	Spring Break		
3/22	No classes	∩ (@ ^ ∇ ^ @) ∩	∩ (@ ^ ∇ ^ @) ∩
3/24			
12	Data Visualization	Data Visualization	Tentative topic: Sports or Journalism (Guest Lecture)
3/29	//	Resources: 1) Watch: Ted Talk: Aaron Koblin: Visualizing ourselves with crowd-sourced data	Resources: TBD
3/31	Sports or Journalism	2) Skim: Meirelles, Designing for Information, Chapter 1 (Edmodo) Optional (i.e. encouraged): 1) Check out the OKCupid blog, which makes excellent use of infographics based on data from their dating site. (Warning: PG-13.) blog.okcupid.com	
13	Sex, Pornography, Media, and Technology	Sex, Pornography, Media, and Technology	Sustainable Energy (Guest Lecture)
4/5	//	Resources: 1) Read: Johnson, " Pornography Drives Technology: Why Not to Censor the Internet " 2) Read: McElroy, " A Feminist Defense of Pornography " 3) State of Online Pornography (Infographic)	Action: 1) Social Media Challenge ends. Papers due prior to next class.
4/7	Sustainable Energy		Resources: TBD

<p>14 4/12 4/14</p>	<p>Digital Divides // Information and Comm. Technologies for Development</p>	<p>Digital Divides</p> <p>Action: 1) Social Media Challenge papers due</p> <p>Resources: 1) Review: Internet World Stats - The Digital Divide 2) Read: The Digital Divide is still leaving Americans Behind 2) Skim: Jones, "US College students use of Internet across race, gender and digital divides"</p>	<p>Information and Communication Technologies for Development (ICT4D)</p> <p>Action: 1) Out-of-class Activity due. 2) Assignment #7 (In-class group Assignment): Group reaction to ICT4D's being able to bridge the digital divide. Take a stance and describe why or why not technology can make the world a better place.</p> <p>Resources: 1) Read: Toyama, "Can Technology end Poverty?" 2) Skim: internet.org 3) Skim: Carruth, "Developing Perspectives" (Edmodo)</p>
<p>15 4/19 4/21</p>	<p>Remix Culture // IP</p>	<p>Remix Culture</p> <p>Action: 1) Assignment #8: Make a remix in any media that alters the message of the original. Be sure to leave a comment describing your source materials and your method of remix.</p> <p>Resources : 1) Skim: The Musician as Thief: Digital Culture and Copyright Law by Keller (Edmodo) 2) Watch: On Joseph Campbell's "Monomyth" 3) Skim: Creative Commons website</p>	<p>Intellectual Property</p> <p>Resources: 1) Watch: Lawrence Lessig: Laws that choke creativity.</p> <p>Optional: 2) Listen: NPR, When Patents Attack</p>



16	Warfare	Warfare and Technology	Privacy
4/26	//	Action: 1) Assignment #8 due prior to class.	Resources: 1) Watch: <u>Your digital trail and how it can be used against you</u>
4/28	Privacy and Identity // Final Review (provided we have time)	Resources: 1): <u>Vanity Fair, "The Changing and terrifying nature of the new cyber-warfare"</u>	2) Read: <u>WSJ: "Why Mark Zuckerberg, Not Julian Assange is Person of the Year"</u>
17	Final	Final: TBD	

COURSE POLICIES

ASSESSMENT (GRADING)

My grading system deviates a bit from the traditional model in that it is an individualized, contractual system. By the end of the 1st week of class, you will state what grade you want to earn (e.g. "A", "B",ho "C"). I will then assess your performance based off the grade you signed up for, meaning that I expect more from an "A" student than from one that signs up for a "B". Once you choose your grade, you must do the following to maintain that standing:

To earn a "C" Grade:

- Post student bio and MBTI type to Edmodo.
- Up to 5 absences. Each additional absence results in a 1/3 grade drop (C → C- → D+).
- Six assignment submissions.
- Minimal participation online and in class.
(~5 posts on Edmodo or in class comments throughout the semester).
- A basic understanding of course material on both midterm and final exams.

To earn a "B" Grade you will be expected to complete the following:

- Post student bio and MBTI type to Edmodo.
- Up to 4 absences. Each additional absence results in a 1/3 grade drop (B → B- → C+)
- Seven assignment submissions.
- Regular participation online and in class.
(~10 posts on Edmodo or in class comments throughout the semester).
- Engage in the Social Media Challenge and complete an individual reflection of your experience. See *Appendix A*
- An advanced understanding of course material on both midterm and final exams.

To earn an "A" Grade you will be expected to complete the following:

- Post student bio and MBTI type to Edmodo.
- Up to 2 absences. Each additional absence results in a 1/3 grade drop (A → A- → B+)
- No missed assignments.
- Frequent participation online and in class.
(~15 posts on Edmodo or in class comments throughout the semester).
- An advanced understanding of course material on both midterm and final exams.

- Engage in the Social Media Challenge and complete an individual reflection of your experience. See *Appendix A*

- Participate in one out-of-class activity **of your choosing** (ATLS Speaker Series, TEDx (watching one online is fine as a *last resort*), etc). Submit a review of the event online.

We will hold you to the grade you select, yet **we reserve the right to drop, or raise, your grade** based upon your work and what is expected of a University student at an institution of this caliber. Additionally, performance on the exams will weigh heavily on whether or not you earn the grade you signed up for.

ATTENDANCE AND REFLECTIONS:

Attendance is **counted via end-of class reflections**. After each session is over, each student will submit a tweet-length (~140 character) reflection to Edmodo. This will double as your attendance record - miss a reflection and it's like you missed class. Good reflections are often a summation of the day's topics or a question regarding an area that you don't fully understand. All reflections are read, if not responded to.

If you have to miss class, you don't need to let me know. It's your responsibility to ask a classmate what you missed, to get all the relevant information from a classmate, and to make sure you complete any assignments *on time*. If you ask, "I am going to miss class, is there anything I need to do?" I will know you have not read this section, and I will be appropriately surly with you. Consider yourself warned.

Note: in Edmodo reflections are graded as either 1/1 (received and attendance noted) or 0/1 (not received and attendance not noted).

CONTRIBUTION:

The frequency and insightful of your participation determines the level of your contribution. With insight in mind, the main questions I ask myself when evaluating are "did this student move the conversation along?" and "how much did this student contribute to the learning of his/her classmates?". Frequency is evaluated based upon your contract grade and assessed in the following manners:

1) Either online via Edmodo or in class, you are expected to share your thoughts. We're not looking for profundity, but rather we're wanting you to share a few coherent thoughts that advance the conversation as it relates to the day's topic. I'm especially interested in learning

how you feel the topic can impact *your* academic/career interests. Again, this may be done in class or via Edmodo.

2) Student posts. Student are encouraged to link articles, artwork, videos, or other relevant and interesting news item on Edmodo as the semester progresses. The subject matter should align with the topic of the day (e.g. for Social, a good link would be to an article discussing how Facebook has impacted reportage and journalism).

EDMODO:

We will be using Edmodo to disseminate content (readings, videos, etc), receive assignment submissions, host online discussions, end of class reflections, and distribute online quizzes.

We will not be using D2L; you'll have to create an account to submit assignments / reflections.

Think of Edmodo as a sort of educational Facebook.
So Post. Comment. Like. Contribute.

ASSIGNMENTS:

Over the course of the semester there will be multiple assignments that will explore the topic at hand. The idea behind the assignments is to provide you with an opportunity to apply what you're learning in our lectures in a reflective way that meshes and advances your understanding of the topic being discussed. Most of the assignments will be of an open-ended format, meaning that you'll have the ability to decide if you want to turn in an essay, photo gallery, painting, drawing, poetry, video, etc.

Nearly all assignments will be due within one week.

Note: All assignments are marked 0/0 or left unmarked, as if they're pass/fail. If you didn't complete the task to spec, you'll have a brief window to resubmit or clarify.

EXAMS :

There will be a one midterm and one final examination (non-cumulative). Each are meant to test your understanding - not regurgitation - of the key concepts discussed in class up to that point. Each exam will largely be comprised of open-ended questions taken from the lectures.

EXTRA-CREDIT // MAKE-UPS:

If you're falling behind, I'm not opposed to entertaining extra credit, but you have to make the pitch. I don't have a standard assignment that will raise you up. Tip: The more creative you can

be about this, the more likely it'll be accepted; past students have attended ATLAS Speaker Series/Black Box events or TED Talks and created summaries of their experiences.

FREEDOM OF SPEECH

This class is held in an academic setting and due to the inherent nature of the Internet and broad range of topics that your project work will explore it is inevitable that we will come across issues dealing with politics, religion, taboo subjects, etc. My role during such discussions will be a facilitator, a mediator, and to be as impartial as possible. All students are encouraged to participate in open discussion and academic discourse.

COURSE CONTENT

The instructor of this class reserves the right to show a broad range of course materials, some of which assume the audience to be adult in age and demeanor. Should a student feel offended by something they have seen or heard, it would be appreciated, but not required, for said student to stay to be part of the dialogue to offer their perspective. However, if the student feels that they cannot stay, they are welcome to leave the classroom as discretely as possible.

ON CHEATING, PLAGIARISM, AND ACADEMIC INTEGRITY:

Don't do it. Respect yourself enough not to cheat. If you find yourself being unethical, hopefully you'll have the wherewithal to check your intentions and, provided your moral compass is working, stop. If I find you being unethical, then you will likely be placed on academic probation within the CU system, expelled, shamed, tarred, feathered, etc, etc, etc. Have integrity in all your actions. I imagine that's carved in stone somewhere and, if not, it should be.

For those inclined, here's a link to the official, if somewhat clinical, CU policy on academic integrity: (<http://www.colorado.edu/policies/academic-integrity-policy>).

ONE MORE THING:

Don't hesitate to let me know if you have any questions or concerns about the class - that's often the only way I know that need to change something or be more clear. CU strives to be as inclusive as possible and in the spirit of that I have an open door policy - see or email me directly if you require **any** special accommodations due to disabilities, religious practices, physical requirements, medical needs, and/or anything in between.

Full descriptions of CU policies can be found at the end of this syllabus.

APPENDIX A. SOCIAL MEDIA CHALLENGE

This challenge is a three week study on the personal, social, and psychological patterns and behavior that are involved with dis/connecting from social media (See "ground rules" below for a more detailed explanation of "dis/connecting"). The challenge begins on **3/17** and ends on **4/7**.

The challenge will consist of the following deliverables:

- 1) Make a concise statement on what you expect to happen when you dis/connect from Social Media (2-3 sentences). This will serve as your hypothesis and should be included in the introduction to your submission.
- 2) At the end of the challenge period, each student will write a reflection on her or his experience dis/connecting from social media. Touch upon the social, personal, and technological implications of abstaining, or joining, social media. What did you experience? How, if at all, will this change your social media habits moving forward?
- 3) Upload your statement and reflection, in one document, to Edmodo.

Exceptions to this challenge will be made if you have familial or employment obligations (e.g. you work in social media), but not if you indulge in personal usage.

This is on the honor system. Do everything with intention and integrity.

GROUND RULES: In our challenge, disconnecting from social media limits you to: emailing, SMS texting and content consumption via news sites not named [reddit.com](https://www.reddit.com). I'm primarily concerned with interaction - creating or sharing any type of content. Actions like writing blog posts, uploading videos, commenting, liking a comment, posting status updates, sharing a post, checking in, playing social games, chatting online, video chatting, or anything related to those actions are not verboten.

CU DISABILITY POLICY:

If you qualify for accommodations because of a disability, please submit to your professor a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on

documented disabilities. Contact Disability Services at [303-492-8671](tel:303-492-8671) or by e-mail at dsinfo@colorado.edu.

If you have a temporary medical condition or injury, see Temporary Injuries under Quick Links at Disability Services website (<http://disabilityservices.colorado.edu/>) and discuss your needs with your professor.

CU RELIGIOUS OBSERVANCES POLICY:

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, {{insert your procedures here}}

See full details at http://www.colorado.edu/policies/fac_relig.html

CU CLASSROOM BEHAVIOR POLICY:

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at

<http://www.colorado.edu/policies/classbehavior.html> and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

CU DISCRIMINATION POLICY:

The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU- Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or

related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://hr.colorado.edu/dh/>

CU HONOR CODE:

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at

<http://www.colorado.edu/policies/honor.html> and at <http://honorcode.colorado.edu>