

**SCIENTIFIC AND TECHNOLOGICAL CONTROVERSIES
THE POLITICS OF SECRECY AND OPENESS**

BASC 201

Department of Art History and Communication Studies

McGill University

Professor Gabriella Coleman

Monday and Wednesday

2:35-3:55 PM, Stewart Biology Building N2/2

Fall 2014

OVERVIEW

This course introduces students to a range of issues concerning openness and secrecy in science and technology through the angle of controversies. The class takes a broad view of the meaning of openness, secrecy and controversies and includes, among other topics: the resolution and constitution of scientific claims, the rise of the ethic of openness, debates over the process of scientific discovery and technological invention, the moral dimensions of science and technology, the social conduits for establishing truth and debunking bad science, the role of non-experts, from patient activists to journalists, in the critique of and participation in science and technology, and the role of new technologies in expanding the scope and breath of state surveillance as well as opening up new possibilities for exposing state secrecy.

This class will introduce students to various approaches to the social scientific and humanistic study of science and technology. The class draws on classic academic works in diverse fields, such as the history and philosophy of science, medical anthropology, and bio-ethics, while also integrating a broad base of engaging and accessible material (editorials, conversations from patient forums, national policies on science, legal regulations, and scientific controversies to name just a number examples) that educate as well as evoke critique and transformation of the complex contemporary practices, methods, and politics of science and technology.

READINGS

Readings are available on our course website.

Jennifer Garland, the librarian for Communication Studies, is available for support and research assistance. She can be reached at <jennifer.garland@mcgill.ca>

The following books are required and available for purchase at Paragraph Books (2220 Av McGill College)

Stuart Firestein, "Ignorance." Oxford University Press, 2012. (also available as an e-book).

Julia Angwin, Dragnet Nation, Times Books, 2014.

REQUIRMENTS, METHOD OF EVALUATION, AND ASSINGMENTS

1. Mid-term exam 35% (multiple choice and short take-home essay)
2. Six pop quizzes 25% (the lowest of the six will be dropped)

- 4. Op-Ed final 25% (separate instructions provided)
- 5. Public Service campaign 15% (group project, separate instructions provided)

Attendance at lectures is mandatory. If you have to miss the lecture, please arrange to get notes and any videos shown in class from a classmate. All cellphones, electronic devices, and wireless connections **must be turned off for the duration of class**. After our mid-term, computers will be banned.

The midterm exam will be an in-class multiple choice exam and take-home essay held on October 29.

To ensure students keep up with the readings, we will have six pop quizzes during the course of the semester. They will be short, ten-minute exams covering basic concepts and facts from the reading. The lowest of the six will be dropped.

Grade Breakdown:

Grade	Grade point	Percentages
A	4.0	85 -100
A-	3.7	80 – 84
B+	3.3	75 – 79
B	3.0	70 – 74
B-	2.7	65 – 69
C+	2.3	60 – 64
C	2.0	55 – 59
D (Conditional Pass)	1.0	50 – 54
F (Fail)	0	0 - 49

GRADING

Grade Appeals

I am always happy to meet to discuss in further detail the criteria used for grading. Please come see me in office hours or make an appointment, if you would like to meet with me to clarify my standards and procedures. It is rare for me to change grades unless it was based on a calculation of error, which has happened on occasion. Academics place serious weight on the process of peer review, which is based on the ideas that qualified outsiders are the best judge of the quality and strength of work. If you would like to discuss or appeal your grade please follow the process detailed below.

1. I will correct calculation errors, at any time with apologies.
2. Please set up an appointment or come to my office hours to seek explanation for a grade. The most likely course of action will be to discuss improvement for subsequent assignments.
3. If a student wishes to dispute a grade, you may choose to follow the university’s standard appeals process (note: if an appeal is heard at the university level, it is considered sui generis, meaning that the grade could stay the same, be raised or lowered and will be graded by another professor in the University).

EMAIL POLICY

During the academic year, I receive a considerable amount of email. In order for me to respond to my e-mail efficiently, please follow the following guidelines:

1. If you cannot see me during my office hours, e-mail me to set up an appointment; I will try to respond as soon as possible but I usually cannot accommodate a meeting in 24 or even 48 hours.

2. I read and reply to e-mail once a day and usually do not read or reply to e-mail after 5 PM or weekends.
3. Follow instructions for turning in assignments. For this class you are expected to turn in the reading responses via e-mail by 10 a.m. and in class. No other assignments submitted by e-mail will be accepted.
4. Grade inquiries and disputes will not be considered or discussed via e-mail. For all grade inquiries and questions about assignments, please set up an appointment with me (see above).
5. I will not reply to e-mail inquiries regarding course matters (assignment requirements, due dates, exam structure, readings, etc.) that arise from missing class or inattention to the course syllabus. Inquiries requesting clarification will receive replies, though I would strongly prefer these inquiries to be made in class or during office hours.

OTHER INFORMATION AND MCGILL POLICIES

Language: In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded

Accommodations: Students requiring special testing accommodations or other classroom modifications should notify Prof. Coleman and the Office for Students with Disabilities as soon as possible. The OSD is located in Suite 3100, Brown Student Services Building, ph: 398-6009 (voice), 398-8198 (TDD), www.mcgill.ca/osd/.

Academic Integrity: McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism, and other academic offences under the Code of Student Conduct and Disciplinary Procedures. (for more information, see www.mcgill.ca/students/srr/honest/). L'université McGill attaché une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour les plus amples renseignements, veuillez consulter le site www.mcgill.ca/students/srr/honest/).

Academic resources: Students looking for additional assistance with academic reading, study, research and writing skills should consult the McGill academic resources website at: www.mcgill.ca/students/academicresources/.

Counseling: McGill's Counseling Service provides extensive personal, academic, and career counseling to undergraduate and graduate students, including workshops on study skills, multiple choice exams, text anxiety/stress management. They are located in Brown Student Services Bldg, 398-3601 www.mcgill.ca/counselling/. A list of groups and workshops can be found at: www.mcgill.ca/counselling/groups/

Illness: Students are responsible for material covered in all classes, including anything missed due to illness. Examinations will not be re-scheduled and assignment due date extensions will not be provided, for any reason other than documented illness. Students unable to attend examinations or complete assignments due to illness are expected to contact me prior to the examination or due date by email and by phone. Appropriate documentation will be required to support requests for special consideration due to illness (see <http://www.mcgill.ca/students/advising/faq#a14>).

SCHEDULE

The following is a "working schedule." **Class materials are subject to change** based on the interests, understanding, and general pace of the class. It is your responsibility to keep on top of any schedule changes, whether you are in class or not. If you have a concern about any of the materials, please speak to me or the teaching assistants.

Week 1

September 3: Introduction

Course overview, expectations, and requirements.

Week 2

September 8: Introduction, Why Openness and Surveillance?

Take interactive quiz before class and jot down results:

<http://www.cjfe.org/resources/features/privacy-free-expression-you-interactive-quiz>

Hugh Gusterson, "Not all Secrets are Alike." Bulletin of the Atomic Scientists, 2013.

<http://thebulletin.org/not-all-secrets-are-alike>

Bob Carty, "Let Science Speak." Review of Free Expression in Canada, 2013.

http://www.huffingtonpost.ca/2013/05/02/muzzling-science-harper-scientists_n_3201831.html?utm_hp_ref=canada-politics

September 10: Framing Technology

Langdon Winner, "Do Artifacts Have Politics?" The Whale and the Reactor, 1986.

David Brin, "If you can't hide from Big Brother, adapt." New York Times, 2013.

<http://www.nytimes.com/2013/07/25/opinion/global/if-you-cant-hide-from-big-brother-adapt.html?pagewanted=all>

Block One: The EnLIGHTment, Truthiness, Visibility and Invisibility**September 15: Truth's Hegemony and Shades of Reality**

Friedrich Nietzsche, "On Truth and Lies." Unpublished manuscript, 1873.

http://oregonstate.edu/instruct/phl201/modules/Philosophers/Nietzsche/Truth_and_Lie_in_an_Extra-Moral_Sense.htm

September 17: Language and Reality

John Colapinto, "The Interpreter: Has a remote Amazonian tribe upended our understanding of language?" The New Yorker, 2007

<http://www.newyorker.com/magazine/2007/04/16/the-interpreter-2>

Class Debate

Week 3

September 22: Establishing Truth (is not so easy . . .)

Nancy Tomes, "The Gospel Emergent." The Gospel of Germs, 1998.

Science Satire Serpent, "Heroes of Science–Barry J. Marshall," 2012.
<http://sciencedevil.wordpress.com/2012/12/21/hero-of-science-barry-j-marshall/>

September 24: The Brain's Plasticity

Guest Lecture: Professor Tobias Rees, Social Studies of Medicine, McGill University

"Introduction," *Plastic Reason*, Forthcoming.

Week 4

September 29: Rendering Bodies Invisible, Eugenics

Corey G. Johnson, "Female inmates sterilized in California prisons without approval." Center For Investigative Reporting, 2013.

<http://cironline.org/reports/female-inmates-sterilized-california-prisons-without-approval-4917>

In class documentary: Glynis Whiting, "The Sterilization of Leilani Muir," 1996.

October 1: Disability Rights vs Reproductive Rights

Please take quiz and jot down results before class:

How much do you know about disability?

http://www.disabilitycanhappen.org/chances_disability/quiz.asp

Adrienne Asch, "Disability Equality and Prenatal Testing: Contradictory or Compatible?" *Florida State University law Review*, 2003.

Ruth Cowan, "Medical Genetics is not Eugenics." *Chronicle for Higher Education*, 2008.

<http://chronicle.com/article/Medical-Genetics-Is-Not/25463>

Class Debate

Week 5

October 6: Gender, invisibility, and malleability

Jennifer Light, "When Computers Were Women." *Technology and Culture*, 1999.

Alice Robb, "Women Get Interrupted More—Even By Other Women," *The New Republic*, 2014

<http://www.newrepublic.com/article/117757/gender-language-differences-women-get-interrupted-more>

Rosalind Williams, "Snubbed." *The Reconstructionists*, 2013.

<http://goo.gl/hO1p5n>

Listen to before class:

Mary O'Connell, "The Gender Trap, Part II." CBC, 2012.

<http://www.cbc.ca/ideas/episodes/2012/04/26/the-gender-trap-part-2/>

Block Two: The Politics of Access and Property

October 8: What is Intellectual Property?

Carla Hesse, "The rise of intellectual property, 700 B.C. - A.D. 2000: an idea in the balance." Daedalus, 2002.

Sarah Jeong, "Wikipedia's monkey selfie ruling is a travesty for the world's monkey artists," 2104
http://www.theguardian.com/commentisfree/2014/aug/06/wikipedia-monkey-selfie-copyright-artists?CMP=tw_t_gu

Week 6

October 13: No class

Thanksgiving Holiday

October 15: Free and Open Source Software

Gabriella Coleman, "Code is Speech." Cultural Anthropology, 2010

Week 7

October 20: Is Open/Free Always Good?

Astra Taylor, The People's Platform. "For the Love or Money" and "Conclusion"

Class Debate

Block Three: The Scientific Vocation, Reality vs. Fiction, Ignorance vs. Truth

October 22: Ignorance

Stuart Firestein, "Ignorance." Oxford University Press, 2012. (chapter 1 & 2)

Week 8

October 27: Ignorance

Stuart Firestein, "Ignorance." Oxford University Press, 2012.
(Chapter 3, 4 & 7)

October 29: In class mid-term

Multiple-choice exam and a take home essay based on Ignorance.

Essay is due Friday morning, October 31, at 10 AM.

Week 9

November 3: Measurement and Classification

Guest Lecture by our TA: Dylan Mulvin

Geoffrey C. Bowker, Susan Leigh Star, "To Classify is Human," *Sorting Things Out: Classification and Its Consequences*, 2000.

Block Four: The Politics of Digital Media, Surveillance, Transparency, and Privacy

November 5: Surveillance and Privacy

In Class Documentary: "Terms and Conditions May Apply," 2013

Julia Angwin, *Dragnet Nation*, "Hacked" & "A Short History of Tracking"

Week 10

November 10: Surveillance and Privacy

Julia Angwin, *Dragnet Nation*, Chapter "State of Surveillance" and "Freedom of Association," 2014.

November 12: Corporate Surveillance

Guest Lecture via Skype, Morgan Marquis-Bois. Director of security at First Look, and Senior Researcher and Technical Advisor at the Citizen Lab at the Munk School of Global Affairs, University of Toronto.

Rachel Aviv, "A Valuable Reputation" *The New Yorker*, 2014

<http://www.newyorker.com/magazine/2014/02/10/a-valuable-reputation>

Morgan Marquis-Bois "You Can Get Hacked Just By Watching This Cat Video on YouTube," *First Look*, 2014.

<https://firstlook.org/theintercept/2014/08/15/cat-video-hack/>

Barton Gellman, "U.S. firm helped the spyware industry build a potent digital weapon for sale overseas," *Washington Post*, 2014.

http://www.washingtonpost.com/world/national-security/spyware-tools-allow-buyers-to-slip-malicious-code-into-youtube-videos-microsoft-pages/2014/08/15/31c5696c-249c-11e4-8593-da634b334390_story.html

Week 11

November 17: Digital Activism, Social Media, and Algorithms

John Postil, "Democracy in an age of viral reality: A media epidemiography of Spain's indignados movement," 2013.

Zeynep Tufekci, "What Happens to #Ferguson Affects Ferguson," 2014.

<https://medium.com/message/ferguson-is-also-a-net-neutrality-issue-6d2f3db51eb0>

November 19: New Faces of Journalism

Christian Christiansen, "WikiLeaks: From Popular Culture to Political Economy," 2014.

Astra Taylor, *The Peoples Platform*, "What We Want," 2014.

Week 12

November 24: Panopticism and Publicity

Robert McCarthy and Dilip Parameshwar Goankar, "Panopticism and Publicity: Bentham's Quest for Transparency." *Public Culture*, 1994.

November 26: Anonymous

Jill Lepore, "THE PRISM: Privacy in an age of publicity." *New Yorker*, 2013.

Gabriella Coleman, "Our Weirdness is Free.--The logic of Anonymous—online army, agent of chaos, and seeker of justice." *Triple Canopy*, 2012.

http://canopycanopycanopy.com/contents/our_weirdness_is_free

"The War Against Online Trolls," *New York Times*, Room for Debate, 2014.

<http://www.nytimes.com/roomfordebate/2014/08/19/the-war-against-online-trolls>

Week 13

December 1: Distributed of Denial of Service Campaigns and Civil Disobedience

Guest Lecture, Molly Sauter, PhD student, Department of Art History and Communication Studies.

Molly Sauter, "DDoS and Civil Disobedience in historical context," *The Coming Swarm*, 2014.

Asher Wolf, "The Prosecution of Free Speech Activists and the PayPal14: Why Their Fate Matters," 1014
https://medium.com/@asher_wolf/the-prosecution-of-free-speech-activists-and-the-paypal14-c08537a3107c

December 3: Wrap up and ½ Student Presentations**December 4: Student Presentations****December 8: Op-Eds are due at 11 AM.**