SI 523: Information and Control, Winter 2017, Syllabus
Mondays 5:30-8:30pm – NQ 1255– No Prerequisites
John Leslie King, Instructor

Getting Started

Do you want to rule the earth? (As dinosaurs ruled the earth, that is.) Take SI 523 to learn how social control affects human enterprise, engages power and social justice, and depends on information. SI 523 also considers engineering and production management controls that are complementary to social control.

SI 523 meets Monday evenings, January 9 through April 17, North Quad 1255, 5:30-8:30pm. MLK Day is Monday, January 16, and Winter Break is Monday, February 27. I’ll let you know if I will be gone; please let me know if you will. The course started in 2008 and was “flipped” in 2013. Materials are on-line; lecture is used for discussion. The course has always been emergent, a “work in progress.”

SI 523 is about POV – point of view. Read three things to get started on this: Julian Dibbell’s “A Rape in Cyberspace” (on-line; not in Canvas; see also Wikipedia’s article rape in cyberspace), and the instructor’s two pieces “Modern Information Infrastructure in the Support of Distributed Collective Practice in Transport,” and “Triangulation from the Margins” from Canvas. These and the Treasure Hunt (below) start the course.

Most people know more about information and control than they realize. Monsieur Jourdain in Act 2, Scene 4 of Moliere’s comedy, The Bourgeois Gentleman, exclaims in that he is delighted to discover that all his life he has been speaking prose. You probably speak prose, and have learned a lot about social control from living. You’ll learn more if you engage in reflective practice. SI 523 helps people improve at being cheap, fast and good, something from SI 310 we’ll discuss.

Details and connections matter. Take air, for example. If we breathe we need it; demand is inelastic even though air is free. The amount of air matters for climate change. Up to 8km (the “effective atmosphere”) there are about 4.2 billion cubic kilometers of air. Up to the theoretical Kalman limit it’s 52 billion. The past also matters. Why there has never been successful software-based workflow control? The past tells us. SI 523 is big on Faulkner’s line, “The past is never dead. It’s not even past.”

We will discuss climate change. Look up <carbon cycle>. Keep searching (e.g., on <“information and control”>). The Treasure Hunt helps with details, connections and the past. Work alone or in groups (groups are more fun). It is not graded, but sets the tone for the class. Look at the materials on the Treasure Hunt in Canvas, but try to do the hunt first. More links are below in the syllabus. Go beyond what is provided. To get going, we will discuss everything mentioned above.

1 This document is not a contract. It represents how things are supposed to go. I use MS Word instead of PDF because embedded links in MS Word break on transfer to PDF. Report errors.
2 Videos taken in 2008 are still up! See here.
3 Is Wikipedia good enough? “Wikipedia is not considered a credible source.” Really?
4 Search the string between < and >. Include quotation marks if present.
Treasure Hunt

1. Jethro in the Pentateuch helps someone famous by describing hierarchy, an important social control mechanism. Where is this and what does it say?
2. Where do the words inscribed over the entrance to Angell Hall on Central Campus (on State Street) come from, and so what?
3. On State Street just north of South University there’s a crosswalk. Would people be safer if that crosswalk was removed?
4. What controls entry to North Quad’s perimeter doors? How does this work?
5. Rooms in buildings often have simple cybernetic control devices sticking out from the walls. You have used them. What are they and how do they work?
6. Around campus there are gizmos with blue lights on top of them (e.g., by the NQ doors on Washington near State.) What are these?

The General Scheme

The first chunk is the canon (parts 1-3), a functionalist perspective on information and control. The initial readings and Treasure Hunt set up the canon, whereupon reading begins in earnest guided by slides, audio, and discussion. Tricky topics (the second chunk, part 4) is where the canon meets the world.

SI 523 has always been interested in “open:” open software, open courseware, open educational resources, etc., including flipped courses, MOOCs, and so on. Open is talked about as the “next big thing,” but the IT world is full of “next big things.” Search <open source software>, <sourceforge>, <github> <open educational resources>, <moocs>, <coursera>, <udacity>, <edx>, <ocw>, and so on. Millions of hits await you. Creative Commons and other organizations use copyright to protect “open” against copyright used to “close.” This is ironic. Many “next big things” are ironic.

SI 523 has a learning objective: Graduates can examine control mechanisms (e.g., the University of Michigan’s Institutional Review Boards, or IRBs), provide quick and accurate assessment of information issues at work, ground that analysis, explain the issues theoretically (e.g., adverse selection), suggest alternative strategies for information support, and give good presentations on these topics.

Professionals do not have enough time to read everything word-for-word. Some of the reading is kinda reading, well-known to students who took 310. Slides and audio files tell how. We’ll discuss this in class. As examples, kinda read Ross for the main story, but really read Machiavelli and Yates. We’ll address the other readings as we go.

SI 523 deals with social power, a subject makes some uncomfortable. Raise concerns and be honest about discomforts. “Smoothing” doesn’t help with difficult problems; only confrontation does. We’ll discuss these things, too.

If you find words you haven’t heard, look them up. The Pentateuch is the Torah, also known as the first five books of the Old Testament of the Bible.
The Canon: Reading, Watching & Listening, Talking

READING

Reading helps you get where you want to go. But where do you want to go? Start with this classic:

[Alice] began thinking over other children she knew, who might do very well as pigs, and was just saying to herself, 'If one only knew the right way to change them--' when she was a little startled by seeing the Cheshire Cat sitting on a bough of a tree a few yards off.

The Cat only grinned when it saw Alice. It looked good-natured, she thought; still it had very long claws and a great many teeth, so she felt that it ought to be treated with respect.

'Cheshire Puss,' she began, rather timidly, as she did not at all know whether it would like the name; however, it only grinned a little wider. 'Come, it's pleased so far,' thought Alice, and she went on. 'Would you tell me, please, which way I ought to go from here?'

'That depends a good deal on where you want to get to,' said the Cat.

'I don't much care where--' said Alice.

'Then it doesn't matter which way you go,' said the Cat.

'--so long as I get somewhere,' Alice added as an explanation.

'Oh, you're sure to do that,' said the Cat, 'if you only walk long enough.'

From Lewis Carroll's Alice's Adventures in Wonderland, Chapter VI, [https://www.cs.cmu.edu/~rgs/alice-VI.html](https://www.cs.cmu.edu/~rgs/alice-VI.html)

Where do you want to go? Look up these concepts. Keep surfing for others!

http://en.wikipedia.org/wiki/Social_order
http://en.wikipedia.org/wiki/Social_relations
http://en.wikipedia.org/wiki/Social_engineering_%28political_science%29
http://en.wikipedia.org/wiki/Social_control
http://en.wikipedia.org/wiki/Social_control_theory
Etymology (where words come from) tells a great deal about what words mean. Language evolves over time. Don’t use a cheap dictionary: use the Oxford English Dictionary, the OED, available from "inside" the U-M domain. Look up control on the OED (both noun and verb sections). Look up social and system. Read all of each entry. An on-line thesaurus provides synonyms (and maybe antonyms) that you can look up in the OED. You’ll soon know a lot if you use this technique.

After the Treasure Hunt, the canon moves through order and power, touching on structure. Kinda read Edward Alsworth Ross’ early book Social Control to get historical context. See how Ross organized his thinking. Get started with the Preface, the bottom of page 3, and most of pages 7 and 8. The Table of Contents (grounds, means, and system of control) teaches much. Chapter XXX tells what Ross thinks about the system of control. Chapters XXXI and XXXII describe limits and criteria. The Conclusion is most helpful. Really read three articles from JSTOR (accessible in the Umich domain): Meier (“Perspectives on the Concept of Social Control,” Annual Review of Sociology, 1982); Mechanic (“Sources of Power of Lower Participants in Complex Organizations,” Administrative Science Quarterly, 1961); and Blackburn (“Lower Participant Power: Toward a Conceptual Integration,” The Academy of Management Review, 1981). Finish part 1 by really reading Nicolò Machiavelli’s early 16th century blockbuster, The Prince. It’s available on-line in full-text or buy an annotated print version. Re-read it even if you already read it. The Prince has a cult following. See Wikipedia and eMachiavelli and search <machiavelli prince commentary>. In this part of the course he latest reading is 1982. This is an old issue. More contemporary work is available if you search. All of it goes back to the old stuff. I will provide other stuff for Part 1, including more recent work involving Machiavelli. Here are the essential readings through Part 1 in sequence:


Edward Alsworth Ross (1904) Social Control, 1904. This used to be freely available in full text on the web. Not anymore. You might find it by searching <social control foundations ross>. A publisher has reprinted and copyrighted it. A PDF is on Canvas.


Part 2 stays with the canon, but concentrates on JoAnne Yates’ book *Control Through Communication: the Rise of System in American Management* and related readings that move us to technology. Yates uses history masterfully to explain the relationship between technical and social change related to information and control, and gets us started on understanding systems. The objective in this part is to learn more about how technology affects things that lead to change, especially change in social control. Part 3 shifts the canon to technology and technique in information theory, cybernetics, etc. You need to know this in case someone asks. Reading for Parts 2 and 3 will be forthcoming.

**WATCHING & LISTENING**

Watch and listen for multiple points of view. Everyone is a product of his or her time, whether the 16th Century of Machiavelli, the 19th Century of Ross, the 20th Century of Yates, Mechanic and Shannon or the 21st Century of us. Sample different points of view. The things below just scratch the surface of the controversies that await. WARNING: images and language might be offensive and/or disturbing.

Start with: [http://www.youtube.com/watch?v=UysRKy93ryA](http://www.youtube.com/watch?v=UysRKy93ryA); ([lyrics: http://www.azlyrics.com/lyrics/2pac/scaredstraight.html](http://www.azlyrics.com/lyrics/2pac/scaredstraight.html); for more on the artist [http://www.urbandictionary.com/define.php?term=makaveli](http://www.urbandictionary.com/define.php?term=makaveli)). Consider this 1988 hit: [http://www.youtube.com/watch?v=WiX7GTelTPM&feature=related](http://www.youtube.com/watch?v=WiX7GTelTPM&feature=related) Four years later the “Rodney King Incident” occurred in LA (search on <rodney king beating> and you’ll find it). Police officers prosecuted in state court were acquitted (King later won a civil suit), triggering the “Rodney King Riots” (search <rodney king riot>). The main character asked in a press conference, “Can’t we all get along?” (search <rodney king we all get along>) and later died. Troubled incidents still happen (search <black lives matter>). Race is only one issue, but it is powerful.

Is the U.S. a “post-racial” society? Listen to “Strange Fruit” [http://www.youtube.com/watch?v=h4ZyuULy9zs&feature=related](http://www.youtube.com/watch?v=h4ZyuULy9zs&feature=related). ([lyrics: http://www.historyisaweapon.com/defcon1/fruitholiday.html](http://www.historyisaweapon.com/defcon1/fruitholiday.html); see also [http://en.wikipedia.org/wiki/Strange_Fruit](http://en.wikipedia.org/wiki/Strange_Fruit)). The song was written in 1937 and recorded by Billie Holiday in 1939. The social context of the time was Jim Crow. The music in the links above suggests this is not over. The web has many amazing points of view about social control. Different hits come from searching on <women control>, <women power>, <racial control>, <racial power>. Details can change a lot, despite the things in common. Look for multiple points of view.

**TALKING**

Part of SI 523 is talking with other participants. For example:
1. What important things must be understood about social control?
2. What, if anything, has been surprising thus far?
3. Who or what is controlling the direction of this course?
4. What should be changed in the direction of this course?
5. What applications do these ideas have?

**Tips**

The parts of SI 523 correspond to folders under Files on Canvas: read, launch the slides, watch, listen, talk. Canvas emails will cover issues that arise and/or to point to additional readings. (You must have a working email address for Canvas.) Additional information will be provided, including a tentative schedule.

Materials are on-line, but configuration management problems can be a hassle. Try conversion capabilities between formats if you like, but some products don’t work across platforms. I use a Mac, Microsoft Word in .doc format, PowerPoint in .ppt format (view in “Slide Show”), audios in MP3 and videos in MP4. If sources come in .PDF I use that. Cut and paste when necessary.

Employ clarity and charity when reading. Authors should make things clear, but writing for people from different fields makes this hard. Readers have invested a lot to understand the authors, so investing a bit more might reveal what the author “must be saying.” The same applies to understanding what people say. Expect clarity, but when things are unclear, charity is cost-effective. Supervisors appreciate it when subordinates anticipate their orders.

SI 523 also discusses the difference between judgment and authority, and between judgment and process. These topics can be fun, but that does not make them unimportant. Lots of important things are fun to think about.

**Grading**

Is it possible to have a course on information and control without grading? Probably not. In any case, there is grading. There are 100 points. Half of the grade is based on individual performance, and half on group performance. Individual performance is 50 points on a take-home exam that is “open everything” and permits collaboration, but requires people to write up their own answers. Group performance is handled by a “current events” project worth 15 points and a group project/presentations worth 35 points related to tricky topics. Groups chosen early are used throughout. I’ll explain more about this.

Grades do not – and cannot – measure the real value of the course. The first step is to figure out POV for others. The next is to develop the agility to change POV rapidly and precisely. If successful at doing this, one can learn a great deal about complicated issues in a short time. As strange as it might sound, grades are more important for the instructor of SI 523 than for the students. SI 523 cannot be a

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“weeder.” It does not “go” anywhere – except to the rest of your life. Weeding you out of that seems self-defeating.

This ends the instructor’s Syllabus for SI 523. The remaining material is required as part of the syllabus. It’s an information and control thing. I do care about these issues.
School of Information Required Boilerplate

Academic Integrity

Collaboration: UMSI strongly encourages collaboration while working on some assignments, such as homework problems and interpreting reading assignments as a general practice. Active learning is effective. Collaboration with other students in the course will be especially valuable in summarizing the reading materials and picking out the key concepts. You must, however, write your homework submission on your own, in your own words, before turning it in. If you worked with someone on the homework before writing it, you must list any and all collaborators on your written submission. Each course and each instructor may place restrictions on collaboration for any or all assignments. Read the instructions careful and request clarification about collaboration when in doubt. Collaboration is almost always forbidden for take-home and in class exams.

Plagiarism: All written submissions must be your own, original work. Original work for narrative questions is not mere paraphrasing of someone else's completed answer: you must not share written answers with each other at all. At most, you should be working from notes you took while participating in a study session. Largely duplicate copies of the same assignment will receive an equal division of the total point score from the one piece of work. You may incorporate selected excerpts, statements or phrases from publications by other authors, but they must be clearly marked as quotations and must be attributed. If you build on the ideas of prior authors, you must cite their work. You may obtain copy-editing assistance, and you may discuss your ideas with others, but all substantive writing and ideas must be your own, or be explicitly attributed to another. See the (Doctoral, MSI, BSI) student handbooks available on the UMSI intranet for the definition of plagiarism, resources to help you avoid it, and the consequences for intentional or unintentional plagiarism.

Accommodations for students with disabilities

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we teach may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate accommodations. SSD typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. I will treat any information that you provide in as confidential a manner as possible. You can find SSD’s web site and phone number by searching on the U-M main page.

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7 This stuff is required. I did not write it, but edited it. Some of what is said under Academic Integrity does not apply to SI 523. This will be explained; see the instructor for more information.
Student Mental Health and Wellbeing

The University of Michigan is committed to advancing the mental health and wellbeing of its students, while acknowledging that a variety of issues, such as strained relationships, increased anxiety, alcohol/drug problems, and depression, directly impacts students’ academic performance. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. Contact Counseling and Psychological Services (CAPS) at (734) 764-8312 during and after hours, on weekends and holidays or through its counselors physically located in schools on both North and Central Campus. You may also consult University Health Service (UHS) at (734) 764-8320 for alcohol or drug concerns. For a listing of the broad range of mental health services available on campus, visit: http://umich.edu/~mhealth/ Or search for CAPS or mental health on the U-M page.