

SYLLABUS: SI 310, Information Environments and Work, Fall 2018¹

John King, Drew Asselin, Chloe Clark, Corina Kesler, and Natalie Zauhar
jking, asselind, clarkcs, corinak, nzauhar all at umich.edu

Introduction

Welcome to the BSI and 310. The BSI is different from other majors. 310 is different from other classes. 310 is a crash course on becoming an information professional. This syllabus addresses 310.

Questions and answers: Why the preference for Microsoft Word over PDF? Some Word links break when you convert them to PDF and you can't write on most PDFs.² What does the class title mean? Hard to tell; it could be Work in Information-Intensive Environments, but isn't.³ Is 310 graded on a curve? No, there is no *a priori* notion of what grades *should be*. Most students get As and Bs. That doesn't mean the class is easy. Here's the grading table:

Item	Total
Case studies (8 @ 5 points each)	40
Exams (2 @ 25 points each)	50
GSI Discretion	10
Total points	100

- **Lectures and Discussions** are required and tie the class together. Lectures are on Tuesday and Thursday. SI 310-001 is in 1200 Chemistry, 10:00am – 11:20am; SI 310-005 is in 2260 Undergraduate Science Building, 4:00pm – 5:20pm. No Michigan Time. Be quiet if late. Computing devices (laptops, tablets, smart phones) only for class work. Attend enrolled lecture and discussion sections. Let us know if you will be away. Your GSI is your "[first-line supervisor](#)."
- **Case studies and Exams.** These are most of the grade. Prepare in groups but hand in individual work. Late assignments have 10% of assignment value deducted for each day late. "Case" means cases + reading. Any topic covered in the course is fair game for the "take home, open everything" exams. Week 8 is busy: an exam due on Monday and a case due on Friday. GSI discretion covers hard work, progress, extra credit work and "getting it."
- **Canvas.** Most things are in Canvas. No additional purchases. Canvas *must* get email to you. When emailing instructor or GSIs include 310 in the subject line.
- **Firing Line** is important but not graded. In military training the firing range has a firing line. [William F. Buckley, Jr.](#) had a TV show by this name. No firearms. The purpose is calibration. Watch for the skunk.
- **Questions?** Ask.

¹ Originally a department in LSA, UMSI became the School of Information and Library Studies (SILS) in 1969, renamed the School of Information (SI) in 1996 and renamed UMSI for "branding" in 2011. The Registrar's systems use only SI. The School is UMSI but the course is SI 310 (just 310 to us).

² First 310 lesson: technology will always let you down. Two ways to understand this; one is right.

³ Second 310 lesson: nothing is certain. This syllabus might change. *Ambiguity*, anyone?

Learning Model

BSI students like technology, but are drawn to UMSI's focus on people. UMSI is about [sociotechnical systems](#). 310 is about the "socio," explored through cases. Know *how* to learn in 310. Don't be deceived by apparent length. Click on the links (the things in blue and underlined). Disambiguate. Read. Get the [context](#). The footnotes are important and contain the first two lessons of 310. The third lesson is that, in the "information age" you don't have time to read everything. Decide what to *really read*, what to *kinda read*, and what to *not read*. Kinda reading is introduced in the Ushahidi case. Until then, really read, including this syllabus.

310 makes students *better* than co-workers (the "bear joke" from How It's Made). The BSI grad is an [agent](#) in a [system](#), but an [open system](#), not a [closed system](#). Good agents deal effectively with [ambiguity](#) (the "baseball umpire joke" from the first lecture). They do not end-run or avoid problems, but see them from multiple [points of view](#) (POV). When confused, they talk to others. Understanding Figure 1 (below) is vital to making sense of the class. The 310 objectives:

- Become an agent as in Figure 1.
- Know important [management](#) terms.
- Know how to write [concisely](#) but well.

"Agent" above links to a [disambiguation page](#). (The root of disambiguation is ambiguity.) Examine the descriptions of agent. Which apply to 310? The cases and readings prepare people for projects. Here are the nine cases (order of the last three might change). The first is done in lecture and has no required write-up. Write-ups are required for the rest. Case 5, Arab Spring, is the "capstone" case.

1. What Is UMSI and the BSI?
2. 9/11
3. Ushahidi
4. Aurolab
5. Arab Spring
6. Dabbawalas of Mumbai
7. Ford Fiesta (Social Media Analysis & Design Path)
8. Security (User Experience Path)
9. Data Mining (Information Analysis Path)

310's motto is Cheap/Fast/Good, derived from the joke, "Cheap, Fast, Good: Choose Two." Cheap is from the customer point of view; your employer is customer for your labor. If your customers pay you well but think it's a bargain you can get rich. The joke suggests that it can be cheap and fast, but it won't be very good. Or it can be cheap and good, but it will not happen very fast. Or it can be fast and good, but it will cost. A good agent is all three. Stepping-stones to Cheap/Fast/Good are fast and good. Cases 2-5 (9/11 through Arab Spring) are on two-week turnaround. After that it's one week as things speed up. Then it slows down.

It Starts with Stakeholders

After 310 no one in the BSI thinks [stakeholders](#) are only those who pay for the project. Some stakeholders are *enemies*. Not every stakeholder sees their enemies, but good agents do! 9/11 and Ushahidi explore stakeholders (including terrorists) and their interests. This requires understanding [infrastructure](#) (including [information infrastructure](#)), which often requires [infrastructural inversion](#). Aurolab shows that not all stakeholders matter equally. Vital information can be carried in artifacts. Aurolab is an enterprise, so some terminology is introduced. Arab Spring is about context. History is often the fastest way to understand context. Historian George Santayana rightly said: "Those who cannot remember the past are condemned to repeat it." History relevant to Arab Spring starts with 9/11 (*caliphate*). Dabbawalas of Mumbai discusses long-standing but not computerized information organization that most in 310 have never heard of. The final cases are drawn from BSI paths: one on Social Media Analysis and Design, one on User Experience, and one on Information Analysis.

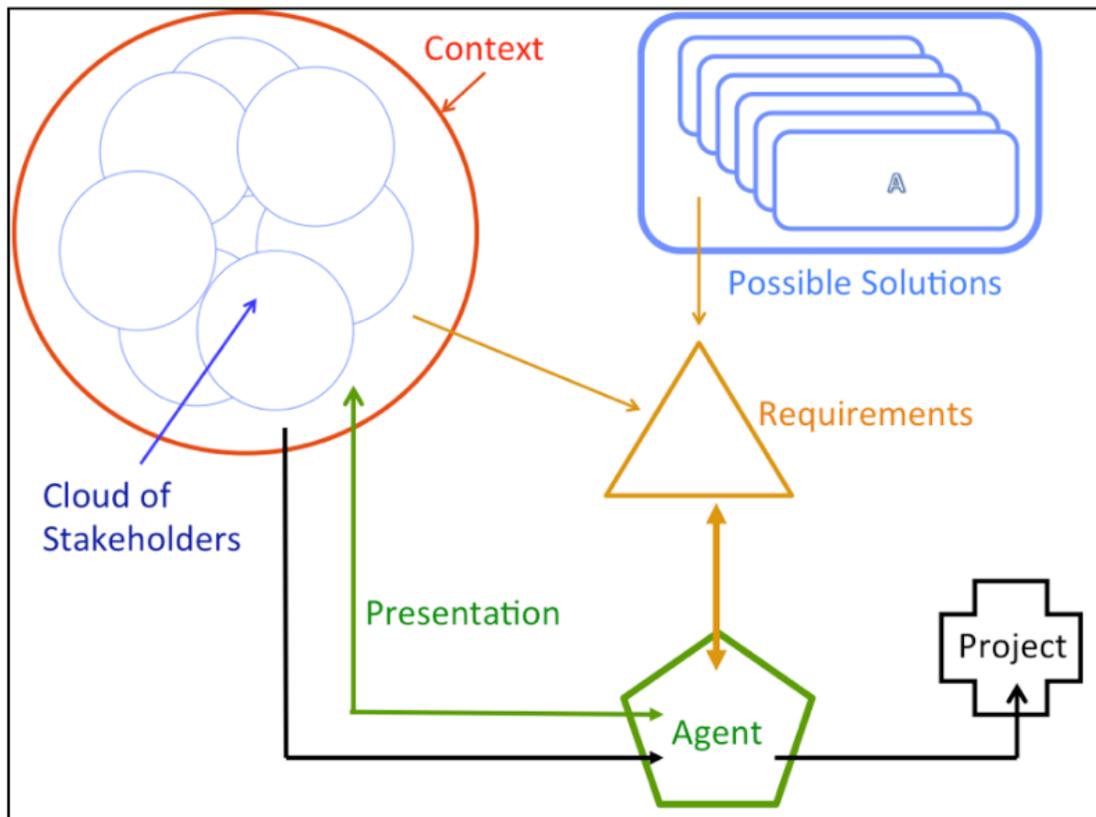


Figure 1: 310 in a Nutshell ¶

This figure is essential. Study it. Key issues for 310 are below. Read again and ask questions of you don't understand. Get it right early. Don't procrastinate.

The Key Issues in 310

- Stakeholder [interests](#) in the [context](#) of a [problem](#).
- [Infrastructure](#) (often requires [infrastructural inversion](#)) – see links above.
- [Implications](#) for solving or not solving the problem.
- Factors (including [organizational](#) and [institutional](#)) that must be considered.
- [Solutions](#) for relevant stakeholders.
- [Presentation](#) that convinces stakeholders about solutions.⁴

By now you have seen many disambiguation pages. Many things are ambiguous. A [high tolerance for ambiguity](#) will serve you well. Don't try to [get rich quick](#). Take your time. Get the terminology right *before* you proceed or fight it the rest of the way. Use [reflective practice](#) and learn *all the time*. Start now. You'll get faster and better; the goal is fast and good. Now take the bullet points above apart.

Stakeholders and their interests in the context of a problem. Stakeholders might not share the same interests; sometimes they are enemies. They come and go. Who are the stakeholders in the BSI beyond [instructors](#) and [employers](#)? What are their interests? Make a table of stakeholders and interests.

Infrastructure. This is a good way to learn about stakeholders and interests. Nearly all information work builds on existing information infrastructure, and adds to it. Much infrastructure is invisible until it breaks (Star and Ruhleder paper for 9/11). Infrastructural inversion allows you to see farther – the bear joke, again. Complicated things yield “normal accidents” (the Perrow paper). The objective is to create *good* infrastructure, not *perfect* infrastructure. Often, [perfect is the enemy of the good](#).

Implications for solving or not solving the problem. Back to the BSI. What do instructors and employers want? UMSI has become more tuition-dependent in the past years.⁵ Failure to provide what tuition-payers want is a catastrophe. Students and parents are stakeholders! What happens if the stakeholders are unhappy?

Factors (including organizational and institutional) that must be considered. Creating a University of Michigan degree requires a [process involving organizational officers](#) as stakeholders. Some at U-M opposed the BSI. UMSI's MSI degree started in 1996, before Google, Facebook, Twitter, and smartphones appeared. Technology can change fast. The university changes slowly. How is this a stakeholder issue?

Solutions for relevant stakeholders. [Old saying](#): success has many parents but failure is an orphan. To be successful “solutions” must go beyond inventory: you have to make new ones, not just sell what you have. One stakeholder's solution can be another's problem (a bad solution is an [oxymoron](#)). You don't serve all stakeholders; some should be thwarted. “Requirements” are important but hard (Ushahidi). See [requirements analysis](#). What requirements for the BSI make sense in light of possible solutions? Look up the [garbage can theory](#) of decision making

⁴ Many links go to Wikipedia, so read this [article](#). “Disambiguation” is often necessary. Lesson four: disambiguate to the extent you can; some things are just ambiguous (the baseball umpire joke).

⁵ When I was dean in 2000 SI was dependent on tuition for about 1/3 of its revenue. Now it's 2/3.

developed in part by UMSI's very own, late [Michael Cohen](#). The final three cases focus on solutions for projects relevant to the BSI's major project courses.

Presentation that convinces stakeholders about solutions. Old saying: "actions speak louder than words." Convincing stakeholders to give you the job requires both solutions *and* good presentation skills.

People have been doing these things successfully for a long time. You can become fast and good at them, but you must know more than the word "stakeholder." Knowing stakeholders are important starts you down the rabbit-hole. In addition, you need to know who they are, what their interests are, how they think, and how you as an agent help some while thwarting others. Stakeholders come and go, and change over time; you can't treat them as "[fire and forget](#)" propositions. Being better than others (the "bear joke) starts with stakeholders.

By now you recognize instructors, employers, students, university officers, parents and others as stakeholders in the BSI with different interests. You are a stakeholder: what interests do you have? You might be a bold risk-taker looking for high-risk/high-return. You might want to make an impact with inspiration and innovation. You might be a chump who'd buy a [pig in a poke](#). You might be a trendy-ass poser. (Those aren't the only options, by the way). What do stakeholders *close to you* want? This is a start, with more to come.

The class uses [figure-ground](#) perceptual grouping. The figure (foreground) is Figure 1 plus cases, parsing, theory, the motto cheap/fast/good, and the plea, "stop torturing me!" Ground (background) is POV, sensemaking, respect, leadership, the bear and umpire jokes, the fire hose, power, reflection, proportionality, and the fact that you may be mistaken. All of these will be discussed. Some might say that's a lot! Yeah, it is.

Summing Up 310

Old question: "[What am I? Chopped liver?](#)" Answer: no, you are a "[working stiff](#)" and part of the "[working class](#)." After you graduate, you might be part of the "[upper-middle class](#)" or the "[upper class](#)." Working stiffs understand "[class conflict](#)" and the need to "[work your way up](#)." Being on top immediately is nice work, if you can get it. When done dreaming, work your way up. Ask someone older whose judgment you trust whether it's necessary to work your way up. It requires effort. 310 gets you ready for internships, project work, full-time jobs, careers., etc. You can't get your Nth job without getting your 1st job (it's a math thing). 310 cares about the 1st job but is aimed at your Nth job where leadership becomes an issue.

Learn about [cadence](#). Disambiguate! 310 is "front-loaded" to give time at the end when there are other deadlines. It starts off on a steep learning curve, goes flat-out to around mid-term, then speeds up more. Preliminary write-ups for cases cease, and case write-ups move to one-week turnaround. One week has the mid-term exam due Monday and a case write-up due Friday. After that things begin to slow down. The final exam is take-home (no separate, in-class final). 310 ends but the learning continues.

Most of you have never had a job or internship where you got a syllabus or a rubric. Those things in 310 are to help you learn to do without them.

Academic Integrity and Collaboration

Collaboration can be useful, and is specified for 310 assignments. Be careful about plagiarism. Assume in 310 that all written submissions must be your own, original work, and not merely paraphrasing of someone else's work. It is safest to not share final written answers with other students. Any excerpts, statements, or phrases from the work of others must be clearly identified as a quotation, with a proper citation provided. Copy-editing assistance is OK. Student handbooks (*e.g.*, on the UMSI intranet) define plagiarism, set standards for academic and professional integrity, and point to resources to help you avoid trouble and consequences if caught. Consequences are initially determined by the faculty instructor, but additional sanctions may be imposed by the assistant dean for academic and student affairs. Ask if in doubt.

Accommodations for Students with Disabilities⁶

If you think you need an accommodation for a disability, please let me [instructor, GSIs] know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we [instructor, GSIs] teach may be modified to facilitate your participation and progress. As soon as you make me [instructor, GSIs] aware of your needs, we [instructor, GSIs] can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate accommodations. SSD (734-763-3000; <https://ssd.umich.edu/>) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. I [instructor, GSIs] will treat any information that you provide in as confidential a manner as possible.

Student Mental Health and Wellbeing

The University of Michigan is committed to advancing the mental health and wellbeing of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, contact Counseling and Psychological Services (CAPS) at (734) 764-8312 and <https://caps.umich.edu/> 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 and <https://www.uhs.umich.edu/mentalhealthsvcs>, or for alcohol or drug concerns, see www.uhs.umich.edu/aodresources. For a listing of other mental health resources available on and off campus, visit: <http://umich.edu/~mhealth/>

⁶ Excepting clarifications [in brackets] this section and the next are taken verbatim from <https://sites.google.com/a/umich.edu/umsi-policies/umsi-academic-programs/course-management-policies>