

INLS 697

Information Science Capstone

Spring 2022

Meets: Tuesdays, 2 – 4:45pm / Manning 001

Zoom: <https://unc.zoom.us/j/97956520813?pwd=OFINZy9kRGNpNW9iUnVoYmt4cXRUZz09>

Instructor: Professor Megan Winget

Schedule Meetings: <https://calendly.com/megan-winget/15min>

Course Objectives

INLS 697: Information Science Capstone: Contemporary topics of information science, information systems, information technology, information design, and information management. Assessment of future impact of new developments.

What that means in terms of this class:

Information Science is a vibrant and rapidly transforming field of study. New issues, topics, technologies, applications and terminologies are continually emerging. One of the key skills you must have as a BSIS major is the ability to analyze these emerging topics and assess new solutions within the context of the information age.

This section of INLS 697 will focus on three issues, which I think will launch students into the professional world with confidence and success:

1. **Skills:** I have developed a final group project that will allow students to bring together and use all of the skills they've learned throughout their SILS undergraduate coursework.
2. **Theory:** We will be reading a book and related articles regarding the technical, cultural, and economic foundations of social media, and how our society is reacting to those challenges.
3. **Creativity:** In my experience, one of the greatest skills in the workplace (or in graduate study, if that's what you're hoping to do) is the ability to think creatively and solve problems through an iterative process of trial and error. We will spend time every class on creativity, making things, and solving problems under unusual circumstances.

Each week we will introduce several new topics that will enable students to integrate and apply their academic background and experience. The primary objective of this course is to raise awareness and curiosity about contemporary and emerging topics of information science, information systems, information technology, and information management. As a result, students will be able to assess the future impact of new developments, and to envision the future of our field.

Learning objectives

At the end of this course, students will:

- Have experience integrating fundamental concepts and concerns associated with information studies into a creative project.
- Be able to relate theoretical concepts and concerns to current events, situations, and technologies.
- Be prepared to succeed after graduation.

Grading / Assessment

In uncertain times, we all need to avoid unnecessary anxiety. In this spirit, nothing in this course will be “graded” in the sense of working toward a “grade,” although all your work will be assessed, with the opportunity to improve, as described below.

As a baseline, all students who complete all course components to minimum proficiency standards will receive an A-.

In order to receive an A- students must:

- Satisfy participation & mutual aid requirements.
- Complete and participate in book club presentations throughout the semester.
- Complete group project to use design thinking to create an in-person or virtual team-building game. Games will be played at the end of the semester.

Assessments

Participation & Mutual Aid

Our time together will be oriented around discussion and group work. Generally, the first half of class (2 – 3:30) will focus on the week’s assigned readings and/or book club (described below), while the second half of class (3:45 – 4:45) will be oriented around group work. I expect everyone to participate in our discussions to the extent possible, and participation in these discussions must be respectful, well-reasoned, and should demonstrate knowledge of the topic (and/or the readings). This kind of participation is integral to the success of this class **and** will not be formally assessed. My expectation is that because we all want to have a successful, interesting, engaging class – each of us will do our best to participate in the discussion.

Some guidelines for successful discussions

Excellent participation typically involves these characteristics:

- Being prepared for synchronous class sessions.
- Enacting a non-judgmental space.
- Demonstrating engagement and attention.
- Supporting each other in mutual learning and growth.
- Exhibiting patience, flexibility, and respect for others.
- Showing interest in others’ ideas, experiences, and values.
- Having the courage to embrace discomfort (perhaps by speaking up, perhaps by being silent; perhaps by offering constructive criticism, perhaps by receiving a response gracefully).
- Taking responsibility for our mutual mastery of the course material.

Some of the ways that we can achieve excellence include:

- Getting through the materials for each unit (readings, lectures, activities) before class.
- Attending class.
- Taking the time to participate thoughtfully and deliberately; not being afraid of awkward silences.
- If it's hard for you to speak, make an effort to try it; if it's hard for you to keep quiet, make an effort to listen ("step up/step back" according to your own strengths and challenges).
- Using active listening techniques during class, so that, even when muted in Zoom, it's clear that you are paying attention (for instance, gestures, reaction emojis, chat).
- Demonstrating flexibility and graciousness in the face of technical breakdowns and other distractions.
- Taking advantage of alternate modalities (in Zoom, chat and breakout rooms; forums in Sakai).
- Acknowledging and encouraging the contributions of others; letting people know that you want to hear them (for instance, asking open-ended questions, referencing what others have said, learning each others' names).
- Taking responsibility to ask questions or get help when necessary.
- Approaching disagreement respectfully.
- Providing constructive and useful feedback for project peer reviews.

I've recently been thinking about why I think participation is so important, and how to more equitably "grade" students on this very subjective metric. I've realized that participation is important because it's an element of community, and I definitely think building community is important. So I've come up with a way to measure participation in a way that's more equitable and perhaps will have a greater impact on the class. I'm calling this new form of participation "mutual aid"

At the end of the semester, students will be asked to give themselves points based on the ways they take care of each other in class.

Some examples of how to get mutual aid points:

- **Scribes:** Every class, we have two notetakers who will come together and post their notes online. This will include keeping track of discussion, finding any links mentioned in discussion, and providing an overview of upcoming due dates. Sign up at this link:
- **Timekeeper:** I will post the "Script" for a class session up with the timing of each step at the beginning of class, and this person will help me stay on-time. I'll ask at the beginning of class who wants to be the timekeeper. First to answer gets the job that week.
- **Class Contract:** Participate in making a class contract for shared expectations for how we all want to be treated (this is facilitated in the first two classes)
- **Work with me:** This involves doing the reading, thinking about it, and meeting with me before class (15-30 minutes) to have a brief discussion about what the class discussion questions might be. If class is on Tuesdays, best meeting day is Monday, but I'm flexible. Two people per class session. Sign up here:
- **Email an author** of a text and share how it changed your thinking. Please copy me on the message.
- **Suggest readings.** If you know of an interesting reading (or ethical standard that I've missed) please let me know and I'll look it over and add it to the syllabus!
- **Write a letter to future students:** on the last day, write a letter to next semester's students with tips and tricks for navigating the course (& my teaching/grading style) you wish they knew at the start.
- **Any form of mutual aid.** proof reading, showing the library, etc.
- **"Previously" narrator:** Summarize what we did last class at the start of class

- **“Next Week” narrator:** Summarize what's happening next week, what we're reading, what we're likely to be talking about, and any upcoming due dates.
- **Annotator:** Many people read texts better when they are marked up with highlights, definitions, notes, etc. Submit a PDF that is annotated for other readers and future classes & peers. Instructions here: <https://slideplayer.com/slide/10656558/> (Links to an external site.)
- **Breakout room reporter:** volunteer to take notes in the breakout rooms / small-group discussions and then report back for the group when we return to the main room.
- **Unanticipated awesome person:** Do something that helps your peers that this list did not anticipate. I am sure that we will have more items for the list every semester.

I will add to this list in Canvas, as the semester progresses. Students will keep track of their mutual aid points throughout the semester and provide a numbered review at the end of class. I will not be keeping track of these mutual aid points! Minimum level of expectation will be 7 points. **The only way to get a grade higher than an A- is through mutual aid points.**

Book Club

We will, as a class, be reading one book. Each week a book club group will lead discussion on two chapters of that book. The book we will be reading is:

Thorp, J. (2021). Living in Data: A Citizen's Guide to a Better Information Future. MCD.

The book can be bought new from anywhere you buy books – but of course, Amazon has the best prices (new or used, or in kindle form). Please have the book by January 27. Book club presentations will begin the following week: February 3.

We will form book clubs in the first few weeks of class, and although one group will present two chapters at a time, the entire class will be reading along.

We will discuss the nature of the Book Club presentations on the first day of class.

Final Project Introduction - Design Thinking

“Discovery consists of seeing what everybody has seen and thinking what nobody has thought.”
~Albert Szent-Gyorgyi, Nobel Prize winning biochemist and discoverer of Vitamin C

“A great many people think they are thinking when they are really rearranging their prejudices.”
~William James, American philosopher and psychologist

“A designer knows he’s achieved perfection not when there is nothing left to add, but when there is nothing left to take away.” (Related to the gospel of German industrial designer and Steve Jobs’ mentor Dieter Rams (Braun): “Weniger aber besser” = “Less but better”)
~Antoine de Saint-Exupery, author of *The Little Prince*

“You can dream, design, create, and build the most wonderful place in the world, but it requires people to make the dream a reality.”
~Walt Disney

Design Thinking Overview

Design Thinking is a problem-solving methodology especially well-suited for investigating complicated problems. It uses methods derived from the field of design to match people's needs with what is technically and organizationally feasible, and converting business strategy into customer / stakeholder value in a way that is financially viable. Design thinking is a mixture of needs / feasibility / strategy / value / \$\$.

Initially corporations developed this process so that they could quickly, creatively, and effectively develop new products and services. But this process is also very useful for the public and social sectors as well.

This project provides an introduction to design thinking for budding business titans, policy makers, social innovators and anyone else interested in learning more about an approach that can be applied to a variety of "wicked" problems.

We'll begin with a review of the history and context of design thinking, then we'll take a deep dive into the discipline using a step-by-step methodology used in a variety of settings. Design thinking is valuable for academic work, start-ups, and in large organizational settings. We'll focus on four questions and ten key activities – we'll complete some pre-defined templates and exercises, we'll get experience with the design thinker's toolkit and we'll put theory into practice.

Design thinking touches on topics ranging from psychology and neuroscience to visual thinking and drawing pictures to work through problems.

In this part of the class we'll have some lectures, discussions, readings, in-class exercises and a series of formal and informal design reviews that will encourage reflection on students' process and insights. Success will depend on the degree of involvement in observing, listening, analyzing, storytelling and otherwise engaging key stakeholders to develop and prototype meaningful and transformative designs for products, services or other relevant outcomes.

Design thinking is a vast field. There are lots of topics, applications, methodologies and tools. This project will therefore act as an introduction to the main concepts, methods and general uses of design thinking in the public, private and social sectors. It's directed to future problem solvers, and those who will be leading and overseeing their efforts.

I want this project to give students a good foundation: the concepts, tools and techniques that will be relevant and valuable for their career plans.

Readings (Available online through the library)

- (Jeanne Liedtka and Tim Ogilvie [*Designing for Growth: A Design Thinking Tool Kit for Managers*](#) (Columbia University Press, 2011)(no readings in this, but it might be useful to know it exists)
- Jeanne Liedtka, Tim Ogilvie, and Rachel Brozenske, [*The Designing for Growth Field Book: A Step-by-Step Project Guide*](#) (Columbia University Press, 2014)

Lectures / Readings Outline:

The design thinking part of the course is organized into 6 modules (one module per week):

- **Why Design Thinking and The Design Process** provides context and an introduction to key concepts, terminology, and structure for the course.
- **Scoping, The Design Brief and Visualization** introduces ways to clarify the scope of a project and its intent, questions to explore, target stakeholders, and establishes the importance of pictures and storytelling in the overall process.
- **Fundamentals of Ethnography** and Identifying Insights reviews how to observe users in their “natural habitat” and efficiently extract useful patterns from collected data.
- **Establishing Design Criteria and Brainstorming** shows how to develop a succinct expression of the ideal end state of a project, and deliberately generate many fresh alternatives to the status quo.
- **Concept Development and The Napkin Pitch** details how to choose the best ideas, assemble them into detailed solutions, and rationally evaluate them, as well introduce a simple, consistent format for summarizing and communicating new concepts.
- **Assumptions Testing and Prototyping** introduces a tool for surfacing key assumptions underlying the attractiveness of a new concept and using data to assess the likelihood that they are true, as well as ways to create visual manifestations of concepts.

Design thinking is an inherently collaborative process with a particular emphasis on team-centric activities. As a result, the majority of your final grade will be based on the results that your team produces and your contribution to those results with a smaller portion dedicated to solely individual work:

Final Course Project

Your challenge during the second half of the semester is to create an escape room or collaborative team-building game for other students in the class. To do this, you will apply the “Four Questions, Ten Tools” process introduced in *Designing For Growth* to work through the design process.

To provide structure and rigor to the effort, as well as accelerate progress, individuals and teams (as appropriate) will submit a series of design thinking templates at key junctures of investigation. These templates are:

- Design Brief (Team)
- Design Criteria (Team)
- Napkin Pitch (Team)
- Key Assumptions (Team)

I will provide specific feedback in class the week after these assignments are due.

At the conclusion of the course, teams will synthesize all of their research, activities, templates, methods, artifacts, conclusions, and any other relevant materials to represent their “journey of discovery.” At a minimum, this deliverable should incorporate the following elements:

- Statement of the design challenge and overview of the problem-solving approach
- Insights based on the design research conducted

- Key themes and opportunity areas drawn from research insights
- Visualized concepts that address the opportunity areas
- Technical documentation for each puzzle (description of puzzle, solution, estimated time to solve, number of participants required to solve, associated hint(s), and any relevant visuals). Teams will be responsible for the creation of 4 – 5 puzzles.
- Minutes from group meetings
- Reflections on gameplay. What would you change in the next iteration of the game?
 - I will ask players to provide critical feedback after game play. When reflecting on this first iteration of your game, please address whatever issues you find relevant.

Submissions of these materials will be posted to Canvas and can take form in any digital format (e.g., PowerPoint, Word, PDF) that works for your team.

Your project team will have a full class period at the end of the semester to present your game and any follow up material you'd like to provide.

Game / Team Building Exercise Overview

For this project, you will work collaboratively to research, design, construct, and run a virtual or in-person team-building experience. A team-building experience can be lots of different things, but typically students envision it as an game where participants must work together to reach the end. So it's not an ongoing game, it has a beginning and an end, and it requires teamwork to get from one point to another.

Part of this process entails writing and compiling the game's accompanying technical documentation (detailed below). Because this project has many components, you will negotiate and select roles for each team member based on the descriptions below. There will be five teams, each team will have 4-5 members. While everyone on the team will work together to ensure the room is compelling, fun, and well-run, each team member will have specific duties.

<i>Project Manager</i>	
Responsibilities	Deliverables
<ul style="list-style-type: none"> • Oversees team communications, meetings (agendas and notes) and deadlines • Reports any problems and provides project status updates to instructor • Discerns how to acquire props and materials (if needed / budgeting) 	<ul style="list-style-type: none"> • Creates meeting agendas and records meeting minutes during team meetings • Records a workflow and team achievements through a project management program (like Trello or Asana) • Writes a project summary to be included in the Journey of Discovery. • Responsible for communication with instructor

<i>Logistics Specialist</i>	
Responsibilities	Deliverables
<ul style="list-style-type: none"> • Works with technical specialist to plan and manage logistical / operational components of the escape room. • Organizes the team's documentation / deliverables (Teams or Google Drive) • Stores all documentation in a central location for team and instructor to view and access (get info to instructor by week 4) • Streamlines all documents to ensure consistency in branding and formatting 	<ul style="list-style-type: none"> • Create the rules for the game attendees (conduct, materials/behaviors that are off-limits, etc.) • Prepares team documentation into a project portfolio for the "Journey of Discovery" documentation to be turned in at the end of class.

<i>Systems Specialist</i>	
Responsibilities	Deliverables
<ul style="list-style-type: none"> • Creates game paths. Walk-thrus of different paths players may take through the mini-games or puzzles or whatever. • Overall vision of the game environment from a systems standpoint. Working up from decision trees to wireframes (if online) to maps... 	<ul style="list-style-type: none"> • Works with the logistics specialist to compile documentation into a well-organized, easy to navigate final project portfolio • Creates a document template and formats all documentation accordingly. Receives feedback from team members as test users. • Creates a system map of the game, with a path through playing it.

<i>Creative Specialist</i>	
Responsibilities	Deliverables
<ul style="list-style-type: none"> • Develops overarching narrative / story of the game • Ensures that the game theme is integrated throughout gameplay. • Ensures puzzles and game follows a storyline trajectory (clear beginning, middle and end) • Creates any graphics • Drives process of creating / developing narrative. 	<ul style="list-style-type: none"> • Writes and delivers the introductory script / spiel to game players • Conducts research and provides storylines that the team can work from • Writes creative focused project summary for "Journey of Discovery"

*This project is based almost entirely on Tim Zak's Design Thinking short-course at Carnegie Mellon University. I got the idea of escape rooms as final projects from Maggie Melo, my colleague at UNC – Chapel Hill. Thanks!

Course Policies

Student Support

Please utilize me as a resource if you are having difficulty with the material or there are outside circumstances impeding your ability to learn (for example, housing insecurity, food insecurity, emotional insecurity, or need physical or mental health services). **You should also know that I am a mandatory reporter if you choose to confide in me.**

Mental Health: CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. Go to their website: <https://caps.unc.edu/> or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more. (*source: Student Safety and Wellness Proposal for EPC, Sep 2018*)

Basic needs security. Any student who faces challenges affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in this course, is encouraged to contact the Office of the Dean of Students. Furthermore, please notify me if you are comfortable in doing so. This will enable me to provide other resources I may know of. Other resources you may find helpful:

- [Student Support: Office of the Dean of Students](#)
- [Carolina Cupboard: Community Food Pantry \(on-campus\)](#)
- [Groceries for Neighbors in Need](#)

Accommodations: The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability, or pregnancy complications resulting in barriers to fully accessing University courses, programs, and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information: <https://ars.unc.edu> or email ars@unc.edu.

Title IX: Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Please contact the Director of Title IX Compliance (Adrienne Allison – Adrienne.allison@unc.edu), Report and Response Coordinators in the Equal Opportunity and Compliance Office (reportandresponse@unc.edu), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators (gvsc@unc.edu; confidential) to discuss your specific needs. Additional resources are available at safe.unc.edu.

Diversity & Inclusion: My intention as an educator is to provide a safe and inclusive environment for all learners. I work hard to include course materials and activities that promote diversity but Information & Library Science (and most disciplines in the academy) were founded by those from a privileged background. As a cisgender, straight, white, able-bodied woman, my standpoint may exclude important points of view. It is also possible that I will make unintentional mistakes. If this happens, please come, and speak to me directly. I promise to acknowledge your concerns as valid

and learn from critiques. Likewise, I'm always looking for new scholarship by women, BIPOC, LGBTQ+, and non-Western thinkers – please share resources you think would be useful. Suggestions and improvements are encouraged and appreciated.

Instructor communication

Feel free to email me at (megan.winget@unc.edu) with questions, but you ****must** include your current best answer to the question, or what you've tried so far.**

During the week (Monday 9 a.m. – Friday 5 p.m.) You should receive a response within 24 hours. Weekends or holidays might take 2 or 3 days. If you do not receive a response by Monday at noon, please follow up. Please keep this in mind when you are scheduling your own activities, especially those related to discussion / escape room preparation. If you wait until the day before an something is due to ask me a clarification question, there is a good chance that you will not receive a response in time.

It is always helpful if your e-mail includes a targeted subject line that begins with “INLS 697.” Please use complete sentences and professional language in your e-mail.

For more complicated questions or help make an appointment to talk with me at a time that is convenient for you. I cannot discuss grades over e-mail; if you have a question about grading, you must talk with me via zoom. To make appointments, please use this link:

<https://calendly.com/megan-winget/15min>

You are welcome to call me by my first name (“Megan”). However, you may also use “Dr. Winget” or “Professor Winget” if that is more comfortable for you. Any is fine. Three forms of address that are not fine: “Ma’am” and “Mrs.” or “Ms.”

Academic integrity

The UNC Honor Code states that:

It shall be the responsibility of every student enrolled at the University of North Carolina to support the principles of academic integrity and to refrain from all forms of academic dishonesty...

This includes prohibitions against the following:

- Falsification, fabrication, or misrepresentation of data or citations.
- Unauthorized assistance or collaboration.

All scholarship builds on previous work, and all scholarship is a form of collaboration, even when working independently. Incorporating the work of others, and collaborating with colleagues, is welcomed in academic work. However, the honor code clarifies that you must always acknowledge when you make use of the ideas, words, or assistance of others in your work. This is typically accomplished through practices of reference, quotation, and citation.

If you are not certain what constitutes proper procedures for acknowledging the work of others, please ask the instructor for assistance. It is your responsibility to ensure that the [honor code](#) is appropriately followed. (The [UNC Office of Student Conduct](#) provides a variety of honor code resources.)

The UNC Libraries has online tutorials on [citation practices](#) and [plagiarism](#) that you might find helpful.

Online Class Statement

By enrolling as a student in this course, you agree to abide by the University of North Carolina at Chapel Hill policies related to the Acceptable Use of online resources. Please consult the [Acceptable Use Policy](#) on topics such as copyright, net etiquette and privacy protection.

As part of this course you may be asked to participate in online discussions or other online activities that may include personal information about you or other students in the course. Please be respectful of the rights and protection of other participants under the UNC-Chapel Hill [Information Security Policies](#) when participating in online classes.

When using online resources offered by organizations not affiliated with UNC-Chapel Hill such as Google or YouTube, please note that the Terms and Conditions of these companies and not the University's Terms and Conditions apply. These third parties may offer different degrees of privacy protection and access rights to online content. You should be well aware of this when posting content to sites not managed by UNC-Chapel Hill.

When links to sites outside of the unc.edu domain are inserted in class discussions, please be mindful that clicking on sites not affiliated with UNC-Chapel Hill may pose a risk for your computer due to the possible presence of malware on such sites.

Acknowledgements and thanks

Game idea is from Maggie Melo, and structure of design thinking project is directly from Tim Zak's Design Thinking short-course at Carnegie Mellon University.

Schedule

Week 1 (January 13)