IDS 2935: People & Big Data: Building for a Sustainable Future Quest 2

I. General Information

Class Meetings

- Fall 2024
- Hybrid, 66 residential students, 1 GTA @ 0.50 FTE, 3 breakout sections, 22 students per section
- Lecture online and Thursday Breakouts Periods 7, 8, 9

Instructor

- Dr. Sarah Bush
- 117C Bryant Space Science Center
- Office Hours: Monday 1-2:30pm and Wednesday 11am-12pm
- <u>sab5271@ufl.edu</u>, 352-273-2585

Teaching Assistant

- Carrie Baker
- 310 Rolfs Hall
- Office Hours: Monday, 10:45am-12:45pm
- <u>baker.carrie@ufl.edu</u>

Course Description

Can big data save the world? This course introduces students to the uses of big data in the social sciences and the theories, methods, and skills needed for considering the uses and social implications of big data in society. Drawing on traditional and applied social science disciplines, this course introduces students to basic approaches, methods, and ethical concerns in understanding the uses (and misuses) of big data. Class discussion and readings will cover examples of social processes at the macro-level (structures, policies), meso-level (institutions, business), and micro-level of individual perceptions and behaviors. This course examines the human implications of the big data revolution: how algorithms and massive data sets enable your social network and improve society while exposing your private life to strangers and reshaping the social compact. This course also includes analyzing how big data is currently being utilized to track and provide insight for solution generation on pressing issues, such as the United Nations 17 <u>Sustainable Development Goals</u>.

Quest and General Education Credit

Quest 2

• Social & Behavioral Sciences

Social and behavioral science courses provide instruction in the history, key themes, principles, terminology, and underlying theory or methodologies used in the social and behavioral sciences. Students will learn to identify, describe and explain social institutions, structures or processes. These courses emphasize the effective application of accepted problem-solving techniques. Students will apply formal and informal qualitative or quantitative analysis to examine the processes and means by which individuals make personal and group decisions, as well as the evaluation of opinions, outcomes or human behavior. Students are expected to assess and analyze ethical perspectives in individual and societal decisions.

This course accomplishes the <u>Quest</u> and <u>General Education</u> objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.

Required Readings and Works

Required readings:

• Required readings are provided on canvas and through Perusall. See course weekly schedule for more detailed information.

Materials and Supplies Fees: n/a

Course Expectations

First and foremost, this class should be fun and enjoyable! With that, this is an interactive class with a high level of student engagement – you must participate. This course is pragmatic in its approach and it is one that you will find useful in your future contacts and work with people.

Attendance is mandatory and recorded. It is up to you to attend class and make the most of it. All assignments are due at 11:55 pm ET on the date indicated on Canvas and in this syllabus, unless otherwise noted. Late work is accepted, penalized by 10% per University business day.

II. Graded Work

Description of Graded Work

All assignments must be turned in on Canvas on the date assigned by 11:55 pm ET. Emailed assignments will not be accepted unless pre-arranged (this includes through Canvas). All papers are expected to be typed in 12-point Times New Roman or Calibri with 1-inch margins. Each assignment must follow the requirements in the rubric. All rubrics are available on Canvas. All assignments will be returned to students on Canvas.

Perusall Discussion (120 points)

Readings will be assigned each week through Perusall, which is accessible through Canvas. You can stop at any place in the Perusall articles and post comments, questions, or see the

questions and comments of other students. This space is intended for reflective discussion and should be a place where you and your peers engage in discussion around application of course concepts.

Attendance/Participation/Learning Activities (50 points)

Each student is expected to attend class and engage in the course experience to receive points. The percentage of attendance and participation will be used to assess your grade and will be converted to the total number of points earned (i.e. 90% completion = 40 points). These will not be graded on correctness, but rather reflective of effort and participation.

Big Data Footprint (50 points)

The big data fingerprint assignment requires that you analyze and reflect upon your own digital fingerprint. You'll explore your digital fingerprint in lab and be asked to provide a 500 – 1,000-word reflection on what information may exist in your digital fingerprint, including number of companies sending you emails a week, types of advertisements attached to you, how searchable you are, and social media information. In this essay, you'll be asked to reflect on "the good, the bad, and the ugly" side of a digital fingerprint. How is this beneficial to you and how might this impact you personally?

Big Data in a Discipline (50 points)

The big data in a discipline assignment provides you with an opportunity to explore how big data it utilized in your own discipline or potential future career path. We'll spend time throughout the semester discussing big data in many different fields and labs will provide an opportunity for you to consider how the concepts and topics apply directly to your future career path and current discipline. You'll provide a 500 – 1,000-word reflection on how big data is currently and could be used in the future in your field. You'll be asked to provide examples of how UF and other researchers/industry are currently utilizing big data in your discipline. You'll then provide a reflection on these usages and a new opportunity you have for the utilization of big data in your discipline.

Homework (50 points)

Five homework assignments will be given following lab sessions in this course (see course schedule) worth 10 points each. The intention of homework is for you to apply the discussion and course work regarding the big data topic to your own life. You'll be asked to provide information on how the topic and discussion related to you through completion of a provided worksheet or submit a 250-word reflection statement (the method will be dependent on the assignment).

Homework 1: 250-word reflection statement on personal views and usages of big data Homework 2: Creating research questions that could be answered with big data Homework 3: News Article Critique based on factfulness Homework 4: 250-word reflection on big data usage for SDGs Homework 5: 250-word reflection on big data and artificial intelligence

Big Data Scavenger Hunt (30 points)

During an in-class culminating exercise, you will be sent around the UF campus to identify examples of Big Data. You will be asked to take a pic and share a clear explanation for how your example aligns with the class understanding of Big Data.

Group Research Project & Presentation (150 points)

Groups will be assigned based on topical interest from a provided list. Groups will be provided with a big data set and asked to design research questions related to the data provided. Assistance in analyzing data will be provided to student groups. Feedback on project components will be provided during interaction lab periods. Groups will create an introduction and rationale for the research question, provide an interpretation and discussion of analyzed data findings, and draw conclusions and recommendations from the findings. Groups will create and participate in a 5-minute presentation. Team members will provide evaluations for their team members and themselves that will be used for a team member participation grade.

As a part of your group research project, you'll be asked to give a 5-minute presentation followed by 2-3 minutes of questions. You must be present to be rewarded points for the presentation. A suggested outline for slides is included below: 5-10 Slides Maximum:

- Introduction/Rationale (1)
- Research Questions (1)
- Process (1)
- Interpretation of Findings (1 slide per research question)
- Conclusions/Recommendations (1-3)

Criteria	0-5 points	5-9 points	10-12 points	12-15 points
PowerPoint				
Presentation				
Inclusion of Introduction, Rationale, research question, findings and interpretation, and conclusions &	Presentation does not clearly present any of the elements	Two or more of the elements are missing or not clearly presented	One of the elements are missing or not clearly presented	All elements are clearly presented and included
recommendations		-		-
Response to	Responses to	Responses to	Responses to	Responses to
Collaboration	not appropriate or connected to findings. Only one presenter responded to questions.	vague, but applicable. Some presenters contributed.	accurate, but lacked depth. Most presenters contributed.	provided greater depth and demonstrated an understanding of content. All presenters contributed.

PowerPoint Design	The PowerPoint	The project	The project has a	The project is
& Creativity	needs significant	needs	nice design and	excellent in design
	improvement in	improvement in	layout. It is neat	and layout. It is
	design, layout,	design, layout, or	and easy to read.	neat and easy to
	and neatness.	neatness		understand the
				content.

Written Research Paper

Outline of Word Count & Length Expectations

- Introduction, Rationale, and Research Question- 500-1,000 words
- Interpretation and discussion of findings- Should include tables, graphs, or visualizations of results and approximately a 250-word write-up for each research question that includes an explanation/interpretation of results and discussion of findings
- Conclusions and Recommendations- 500-1,000 words

Criteria	0-5 points	5-9 points	10-12 points	12-15 points
Final Project				
Introduction,	Report does not	Is missing TWO	Is missing ONE	Introduction and
Rationale, and	include any of	of the opening	of the opening	rationale uses an
Research	the elements	elements:	elements:	attention-
Question	clearly.	attention-	attention-	grabber, states
		grabber, states	grabber, states	main ideas for
		main ideas for	main ideas for	rationale,
		rationale,	rationale,	provides a
		provides a	provides a	research
		research	research	question.
		question.	question.	
Interpretation &	Cursory	Important	In-depth	Appropriate
Discussion of	discussion of	content is	discussion and	interpretation of
Findings	findings	omitted to	appropriate	findings and In-
		interpretation	interpretation of	depth discussion
		of findings	findings	& elaboration of
				findings.
Conclusions &	Report includes	Only includes 1	Only includes 2	Includes 3
Recommendatio	vague	conclusion and	conclusions and	conclusions and
ns	recommendatio	recommendatio	recommendatio	3
	ns and	n.	ns	recommendation
	conclusions			s.
Cohesiveness	Does not tie	Sometimes ties	For the most	Ties together
	together	together	part, ties	information and
	information and	information and	together	flows as if it was
	reads disjointed.	has some flow,	information and	written by one

		but lacks a clear	flows with only	individual.
		outline	minor	Headings
			disjointedness.	provide a clear
				outline and
				demonstrates an
				understanding of
				connection of
				sections.
Clarity of writing,	Unacceptable	Noticeable	Minimal spelling	No spelling &/or
grammar, and	number of	spelling &	&/or grammar	grammar
sentence	spelling and/or	grammar	mistakes	mistakes
structure	grammar	mistakes		
	mistakes			

Team members will complete surveys and rate their team members and themselves on a scale from 1-4 for each category. All students achieving over an average of 3.5 will receive all 30 points. Grades below a 3.5 average rating will be determined based on the percentage out of 3.5. Note: This team member evaluation was developed based on a cooperative learning framework.

Criteria	1	2	3	4			
Team Member Evaluation							
Participation and	Rarely (Never or	Sometimes (less	Frequently	Usually (over			
communication	once in a great	than half of the	(more often	90% of the time)			
	while)	time)	than not)				
Preparation	Rarely (Never or	Sometimes (less	Frequently	Usually (over			
	once in a great	than half of the	(more often	90% of the time)			
	while)	time)	than not)				
Team player	Rarely (Never or	Sometimes (less	Frequently	Usually (over			
(cooperation)	once in a great	than half of the	(more often	90% of the time)			
	while)	time)	than not)				
Helps group	Rarely (Never or	Sometimes (less	Frequently	Usually (over			
excel	once in a great	than half of the	(more often	90% of the time)			
	while)	time)	than not)				

Assignment Summary

Assignment	Due Date	Points	Points
		Available	Earned
Perusall Responses	See course sch.	120	
Attendance/Participation/Learning Activities	Weekly	50	
Big Data Footprint	Sept. 22	50	

Assignment	Due Date	Points Available	Points Earned
Big Data in a Discipline	Nov. 3	50	
Homework	See course sch.	50	
Big Data Scavenger Hunt	Dec. 3	30	
Group Research Project		150	
Presentations	Nov. 21	45	
Final Project	Dec. 10	75	
Team participation	Dec. 10	30	
TOTAL POINTS AVAILABLE		500	

Grading Scale

For information on how UF assigns grade points, visit: <u>https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/</u>

Α	94 – 100%	468 – 500 points	С	74 – 76%	382 – 368 points
A-	90 – 93%	467 – 448 points	C-	70 – 73%	367 – 348 points
B+	87 – 89%	447 – 433 points	D+	67 – 69%	347 – 333 points
В	84 – 86%	432 – 418 points	D	64 – 66%	332 – 318 points
B-	80 - 83%	417 – 398 points	D-	60 – 63%	317 – 298 points
C+	77 – 79%	397 – 383 points	E	<60	297 and below

III. Annotated Weekly Schedule

Week 1

Introduction: Why you love to hate social media?

This week will provide an introduction to the course, semester topics, and big data in social science. The semester will begin with analyzing how big data is utilized through social media and challenge students to consider how big data is collected and utilized in social media. We'll overview an introduction to social sciences and methods for exploring the social sciences. Students will be able to describe the social sciences.

Readings:

Colander, D., & Hunt, E. (2019). Introduction to social science and its methods. In *Social science: An introduction to the study of society (*17th edition, pp. 1-27). Routledge.

Week 2

This week we'll discuss how big data is different than other types of data. The SDGs will be introduced and a brief introduction to uses of data for development will be discussed. Students will be able to distinguish big data from other types of data. Students will be able to identify social science concepts and big data in their lives and perceptions of the world. Students will be able to provide examples of usages of big data in development.

Readings:

- Introduction (pp. 1-36) of Cheney-Lippold, J. (2017). *We are data: Algorithms and the making of our digital selves.* New York University Press.
- Davenport, T. H., Barth, P., & Bean, R. (2012). How 'big data' is different. *MITSloan Management Review*, 54(1), p. 22-24.
- United Nations. Big data for sustainable development. <u>https://www.un.org/en/global-issues/big-data-for-sustainable-development</u>
- United Nations Global Pulse. (2013). *Big data for development: A primer.* p. 1-8. <u>https://beamexchange.org/uploads/filer_public/7e/27/7e279cf5-ad75-4fe7-86a9-4ff331cb4bb6/bigdata_development_primer.pdf</u>

Week 3

This week we'll explore digital footprints and how the internet rules our lives. Students will be able to provide an overview of their digital footprints and different ways the internet tracks information. This week's lab will include a discussion around data ethics and IRB to begin discussing their research projects.

Readings:

- Chapter 6, All the World's a Lab (pp. 207-242) of Stephens-Davidowitz, S. (2017). *Everybody lies:* Big data, new data, and what the internet can tell us about who we really are. HarperCollins.
- What is your digital footprint? University of Aberdeen. 1 p.
 <u>https://www.abdn.ac.uk/toolkit/documents/uploads/infosec-campaign-digifootprint.pdf</u>
- Developing a good digital footprint. (2020). The open university. p. 1-4 <u>https://www.open.ac.uk/libraryservices/beingdigital/accessible/accessible-pdf-62-developing-a-good-digital-footprint.pdf</u>
- Bureau of Justice Assistance. (2016). Understanding digital footprints: Steps to protect personal information. p. 1-9. <u>https://bja.ojp.gov/sites/g/files/xyckuh186/files/media/document/Understanding_Digital_Foot</u> prints-09-2016.pdf

Week 4

This week we'll discuss control related to big data related to who has control over existing data and what control you have over your own data. We will also discuss the value in data and how these are similar and contradictory. Students will be able to identify how generalizations are made with data and what positives and negatives are associated with these generalizations. In the lab, an overview of research and how to pose research questions will be discussed. *Reading:*

 Chapter 6, Value (pp. 98-122) and Chapter 9, Control (pp. 171-184) of Mayer-Schonberger, V., & Cukier, K. (2014). *Big data: A revolution that will transform how we live, work, and think.* HaprberCollins Publishers.

Week 5

This week, we will dive into privacy and ethical considerations related to big data. Students will be able to debate privacy and policy standards for big data usage. Students will be able to reflect and discuss ethical standards for big data usage in this manner. In the lab, students will utilize analytical tools developed by Google to examine trends and marketing information relevant to previous topics and potential fields of study. Additionally, they will learn about data harvesting and mining.

Readings:

- Chapter 5. Privacy (pp. 201-247) of Cheney-Lippold, J. (2017). *We are data: Algorithms and the making of our digital selves.* New York University Press.
- United Nations Development Group. (2017). Data privacy, ethics and protection: Guidance note on big data for achievement of the 2030 agenda. p. 1-19. <u>https://unsdg.un.org/sites/default/files/UNDG_BigData_final_web.pdf</u>

Week 6

This week, we'll move into the usage of big data on world scale issues. We'll begin by discussing how big data can save the world and reviewing how big data is being utilized in the 2030 agenda for sustainable development. Students will be able to identify opportunities for using big data to track progress and develop initiatives for the SDGs. In lab, we will explore how social media can be used to collect big data and answer questions to research questions for their group projects. Additionally, we will explore the United Nations SDG Global Database: https://unstats.un.org/sdgs/dataportal/

Readings:

- UN Environment Programme. Can big data help protect the planet? <u>https://www.unep.org/news-and-stories/story/can-big-data-help-protect-planet</u>
- UN Environment Programme. Work on big data gets a big boost. <u>https://un-spbf.org/big-data/work-on-big-data-gets-a-big-boost/</u>
- Maaroof, A. (n.d.). Big data and the 2030 agenda for sustainable development. p. 1-53. <u>https://www.unescap.org/sites/default/files/Final%20Draft_%20stock-</u> taking%20report_For%20Comment_301115.pdf

Week 5

This week the lecture will cover the possibilities and constraints related to our algorithmic identities. Students will be able to compare, and contrast possibilities and constraints related to the big data revolution.

<mark>Reading:</mark>

• Cheney-Lippold, J. (2017). Chapter 4. Subjectivity (pp. 151-200)

Week 7

This week we will review the principles of factfulness in interpreting information. We'll spend some time exploring the gapminder website and information available. Students will be able to apply the 10 principles of factfulness when examining data and information. In lab week 7 and 8, students will be split into two groups. We additionally will discuss data visualization and the usefulness and importance of sound data visualization.

- Chapter 7, Data visualization (pp. 134-179) of Bergstrom, C. T., & West, J. D. (2021). *Calling bullshit: The art of skepticism in a data-driven world*. Random House.
- Rosling, H., Rosling, O., & Rönnlund, A. R. (2018). *Factfulness: Ten reasons we're wrong about the world and why things are better than you think.* Flatiron Books. Chapter 11 (pp. 206-217)
- The Worldview Upgrader. (n.d.). *Common misconceptions about UN Goals.* https://upgrader.gapminder.org/

Week 8

This week, we'll dive further into how big data is being utilized to track progress and inform change projects for the Sustainable Development Goals (SDGs). Students will be able to identify ways big data is being used for SDGs and opportunities. In lab, students will work in their project groups to analyze the results to their questions and interpret the findings. *Reading:*

- TRENDS. (2021). Big data and the sustainable development goals: Innovations and partnerships to support national monitoring and reporting. p. 1-54. <u>https://www.sdsntrends.org/research/big-data-and-the-sustainable-development-goals-</u> innovations-and-partnerships-to-support-national-monitoring?locale=en
- United Nations Global Pulse. (2016). A guide to data innovation for development: From idea to proof of concept. p. 1-42. <u>https://www.unglobalpulse.org/wp-content/uploads/2016/12/A-guide-to-data-innovation-for-developmnet-UNGP-UNDP.pdf</u>

Week 9

This week, we'll be discussing challenges and opportunities for using big data in development work. Students will be able to recognize and explain different forms of big data utilized in development and insights that can be gained from their usage.

Reading:

• UN Global Pulse. (2012). *Big data for development: Challenges and opportunities*. p. 1-47 <u>https://www.unglobalpulse.org/wp-content/uploads/2012/05/BigDataforDevelopment-UNGlobalPulseMay2012.pdf</u>

Week 10

This week, we'll examine the gaps in big data. These include both the challenges of invisibility and inequality based on what we know and need to find out from data and who does and does not have information. Students will be able to discuss opportunities for minimizing and filling the gaps. In lab, students will learn how to write an introduction and literature review and work with their groups to lay the foundation for their poster research projects.

Reading:

 United nations Secretary-General's Independent Expert Advisory Group on Data Revolution for Sustainable Development (IEAG). (2014). A world that counts: Mobilising the data revolution for sustainable development. p. 1-32 <u>https://www.undatarevolution.org/wp-</u> <u>content/uploads/2014/11/A-World-That-Counts.pdf</u>

Week 11

This week we'll discuss big data in humanitarian work related to the SDGs and Global Pulse. Students will be able to discuss opportunities, barriers, and ethical issues surrounding big data in this work. In lab, students will work to analyze their data to answer their established research questions. *Reading:*

• United Nations Global Pulse. (2016). *Big data for development and humanitarian action: Towards responsible governance*. p. 1-16. <u>https://www.unglobalpulse.org/document/big-data-for-development-and-humanitarian-action-towards-responsible-governance/</u>

Week 12

This week we will explore both mobile data and data related to gender equality. Students will be able to identify positive usages of mobile data for the social good. Students will be able to determine

summarize how big data has been utilized to examine progress on gender equality. In lab, students will work with their project groups to draw conclusions and make recommendations of their interpreted data.

Reading:

- United Nations Women. (2018). Gender equality and big data: Making gender data visible. p. 1-32 <u>https://www.unglobalpulse.org/wp-content/uploads/2018/03/Gender-equality-and-bigdata-en-2018.pdf</u>
- United Nations Global Pulse. (2017). The state of mobile data for social good report. p. 1-48 <u>https://www.unglobalpulse.org/wp-</u> content/uploads/2017/06/Mobile Data for Social Good Report.pdf

Week 13

This week, we will discuss how Artificial Intelligence can be used for good and benefit movement towards the SDGs. Students will be able to identify current usages of AI. Students will be able to debate ethical usages of AI.

Reading:

- International Telecommunication Union. (2021). United Nations activities on artificial intelligence (AI). p. 1-7 <u>https://s41721.pcdn.co/wp-content/uploads/2020/12/21-00794_UN-Activities-on-AI-ExecSum.pdf</u>
- Choice of AI for Good video: <u>https://www.youtube.com/channel/UC4e35vN3-tSBZMNLE-wm45A</u>

Week 14

This week student groups will present their group project presentation to the wider class community. In lecture, students will explore work that is being conducted on Sustainable Development Goals and Big Data at UF. They will also be able to communicate ways big data will impact their potential future careers.

https://www.itu.int/dms_pub/itu-s/opb/gen/S-GEN-UNACT-2018-1-PDF-E.pdf

Week 15

In this culminating experience, students will be sent around the UF campus to identify examples of Big Data.

Date	Day	Торіс	Reading	Assignment Due
8/22-	Lab		See Canvas	
25	Lan	Why you love to hate social media?		
0/26	On	How "big data" differs from "data",	Cheney-Lippold, Introduction	Perusall Wk 2
0/1	UII	Introduction to SDGs & data	See Canvas	
9/1	Lab	Big data a lens to see the world		
		How are data and algorithms used	Stephens-Davidowitz, Chapter 6	Perusall Wk 3
0/2 0/9	On	in our world today, Digital		Homework Due
5/2-5/8		footprints		
	Lab	Data Ethics and IRB discussion		
	On		Mayer-Schönberger & Cukier,	Perusall Wk 4
9/9-	OII	Value & Control	Value & Control Chapters	Homework Due
9/15	Lah	Introduction to research and asking		
	Lab	questions		
9/16-	On	What does privacy look like now?	Cheney-Lippold, Privacy	Perusall Wk 5
9/22	Lah	Uses in marketing and Google, data		Big Data Footprint
5,22	Lub	harvesting and mining		Due
	On	Can big data save the world?	Readings on canvas	Perusall Wk 6
9/23-	011			
9/29	Lab	Choosing a group SDG and writing		Research Question
	200	research questions		Review
	-		Reading on canvas	Perusall Wk 7
9/30- On		Bergstrom & West, Data	Homework Due	
10/6		Factfulness & Data Visualization	Visualization	
	Lab	Visualizing and Interpreting Data		
10/7-	On	Big Data for SDGs	Reading on canvas	Perusall Wk 8
10/13	Lab	Writing your introduction and		
		literature review		
10/14-	On	Big Data for Development:	Reading on canvas	
10/20		Challenges & Opportunities		Perusall Wk 9
	Lab	HiperGator Virtual- Work Day		
10/21-	On	Mobilizing the Data Revolution	Websites on canvas	Perusall Wk 10
10/27	Lab	Using Twitter to answer questions		Intro/Lit Review
10/28-	On	Big Data for Development and	Reading on canvas	Perusall Wk 11
11/3		Humanitarian Action		Homework Due
Lab	Lab	Analyzing big data to answer		Big Data in Your
		questions		Discipline Due
11/4-	On	Data, Gender, and Mobile Data	Reading on canvas	Perusall Wk 12
, 11/10	Lab	Drawing conclusions and making		Findings Review
	-	recommendations		
11/11-	On			Perusall Wk 13
11/17		Big Data & Artificial Intelligence		Homework Due

	Lab		Presentation
	LaD	Work Day	Review
11/10	0.5	SDGs and Big Data at UF and you in	
11/18-	On	your Future Careers	
11/24	Lab	Group Presentations	
12/2-	On		Big Data Scavenger
12/4	On	Class Culmination	Hunt

IV. Student Learning Outcomes (SLOs)

At the end of this course, students will be expected to have achieved the <u>Quest</u> and <u>General Education</u> learning outcomes as follows:

Content: Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline(s).

- Identify, describe, and explain current applications of social science big data at the personal (micro), institutional (meso), and societal (macro) levels (Quest 2, S). Assessments: Perusall, learning activities, and homework.
- Identify, describe, and explain usages and ethical considerations of social science big data for different disciplines and fields (Quest 2, S). Assessments: Perusall, learning activities, big data footprint, group project, and homework.

Critical Thinking: Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline(s).

- Evaluate current usages and future potential opportunities for usage of social science data through ethical and change lenses (Quest 2, S). Assessments: Perusall, learning activities, group project, homework, and big data in your discipline reflection.
- Evaluate and analyze digital footprints and big data points for individuals (Quest 2, S). Assessments: Homework and big data digital footprint reflection
- Critically analyze usages of big data and research for creating change and evaluating progress on Sustainable Development Goals and other world issues (Quest 2, S). Assessments: Homework and group project.

Communication: Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).

- Develop and present in clear writing on social science big data and generate conclusions based on the analysis of individual, institutional, and societal problems (Quest 2, S). Assessments: Perusall, learning activities, group project, homework, big data digital footprint reflection, big data in your discipline reflection.
- Communicate orally and in writing findings from big data analysis and implications and conclusions to societal issues (Quest 2, S). Assessments: Group project.

Connection: Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.

- Connect course concepts and the applications of social science big data to their own personal and professional lives (Quest 2). Assessments: Perusall, learning activities big data in your discipline reflection, big data digital footprint reflection.
- Reflect on their experiences with social science big data and the impact on their lives. **(Quest 2)** Assessments: Perusall, learning activities, homework, big data digital footprint reflection.
- Reflect on applications for social science big data for societal issues, including Sustainable Development Goals (Quest 2). Assessments: Homework, group project.

V. Quest Learning Experiences

1. Details of Experiential Learning Component

HiPerGator Virtual Field Trip

During a lab period and class session, students will watch videos and virtually visit the HiPerGator to learn usages and about the current work being done at UF.

Group Project

Students will engage will learn how to write research questions and use online data from a social media platform to complete a mock research project. In this group project, students will utilize results to their big data questions to present findings and draw conclusions and recommendations.

2. Details of Self-Reflection Component

Perusall and Online Lectures

The online lectures by the instructor are interactive by design and will require students to contribute using VoiceThread. VoiceThread will allow for discussion questions to be posted and students to respond to those posts with their own comments, videos, or audio recordings. Activities will be included throughout lectures to build a dynamic classroom that challenges personal application of course topics. Additionally, students will be asked to use Perusall to reflect on readings and pose discussion questions.

Lab Meetings

Once a week students will meet in their lab groups with a TA and at times the instructor to engage in further discussion from self-reflection in reading quizzes. During their reading quiz, they'll be asked to complete a short answer relate to a self-reflection question draw from the reading. These will be further discussed during class lab meetings.

Homework

Homework will include personal applications for learned material in the course. It will require self-reflection to fully explain how the student will could apply the course concept to their own life and work.

Big Data Footprint and Big Data in a Discipline Reflections

Both the big data footprint and big data in your discipline reflections will require self-reflection for personal applications of social science big data. The assignments will challenge students to dig into applications in their respected discipline, personal and professional lives, and larger impacts for a societal context.

VI. Required Policies

Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

<u>incips.//catalog.un.edu/ugrad/current/regulations/into/attenuance.as</u>

Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

UF Evaluations Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code

(<u>https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/</u>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: <u>http://www.counseling.ufl.edu/</u>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

The Writing Studio

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at http://writing.ufl.edu/writing-studio/ or in 2215 Turlington Hall for one-on-one consultations and workshops.

In-Class Recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.