INTA 2040
Science, Technology, and International Affairs
Fall 2020

Tuesday/Thursday/Friday 2-2.50pm (Remote)
http://gatech.bluejeans.com/nkumar86

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Remote office hours: Thursdays 4pm-5pm and by appointment

BlueJeans link: http://gatech.bluejeans.com/nkumar86

Course Description

This course focuses on studying and interrogating the role that technological advancements have played across the ages, with a focus on four topic areas in particular: geography, development, data, and artificial intelligence. We read authors such as Ruha Benjamin, Caroline Criado Perez, Mary Gray, Anand Giridharadas, Kentaro Toyama, among others. In class, we also encounter additional resources to help place these readings in context. When possible, we will host guest lectures from some of the experts. The goal is to ensure that students leave with an enhanced understanding of major developments in science and technology (particularly cyber systems) from a global perspective.

There are no prerequisites for this course.

Learning Outcomes

- Students will use oral communication to demonstrate knowledge and to make cogent arguments in international affairs.
- Students will demonstrate proficiency in written communication to increase knowledge and develop cogent arguments in international affairs.
- Students will demonstrate the relationship between science and technology and international affairs.
- Students will demonstrate knowledge of ethical awareness regarding international problems.
- Students will demonstrate the ability to collaborate effectively in teams.

Fall 2020

In Fall 2020, this course will be offered remotely. Students are required to attend every class, unless they have a compelling reason not to do so, which they should ideally inform the teaching team about one day earlier. Health and wellbeing come first! If internet bandwidth becomes an issue, students can turn their video off. Being camera-shy is also a perfectly good reason to keep the videos off. Please see policies below on missing class.

As for technologies, we will mainly use Blue Jeans (for class and office hours) and Slack (for communications in between classes). Grades will be made available only on Canvas.

Required Texts

1. Diamond, Jared M. 2005. Guns, Germs, and Steel: the Fates of Human Societies. (JD)
2. Acemoglu, Daron, and James A. Robinson. 2012. Why Nations Fail: the Origins of Power, Prosperity, and Poverty. (WNF)
3. Toyama, Kentaro. 2015. Geek Heresy: rescuing social change from the cult of technology. New York: PublicAffairs. (KT)
4. Giridharadas, Anand. 2020. Winners take all: the elite charade of changing the world. UK: Penguin Books. (AG)
5. Loukissas, Yanni. 2020. All data are local: thinking critically in a data-driven society. (YL)
6. Criado-Perez, Caroline. 2020. Invisible women: exposing data bias in a world designed for men. (CCP)
7. Gray, Mary, and Siddharth Suri. 2019. Ghost Work: How Amazon, Google, and Uber Are Creating a New Global Underclass. Boston: Houghton Mifflin Harcourt Publishing Company. (GW)
8. Benjamin, Ruha. 2019. Race after Technology: Abolitionist Tools for the new Jim Code. Social Forces. (RB)

Course Schedule

Date	Topic	Readings	Due
Week 1	**Introductions**		
8/18	Introductions		
8/20	No Class	Adichie TED talk	Reflection

8/21	"Madness"	Student introductions	Google Slides
Week 2	**ST & Origins**		
8/25	JD	Prologue + Chapters 1-3	
8/27	JD	Chapters 11-14	
8/28	JD	Discussion	
Week 3	**ST & Origins**		
9/1	JD + WNF	Talk	
9/3	WNF	Preface + Chapters 1-3	
9/4	WNF	Chapters 13-15	
Week 4	**ST & Origins**		
9/8	WNF	Discussion	
9/10	JD + WNF	Intersections	
9/11	Teaching Team #1		Google Slides
Week 5	**ST & Development**		
9/15	KT	Chapters 1-3	Reflection #1
9/17	KT	Chapters 4-6	
9/18	KT	Discussion	
Week 6	**ST & Development**		
9/22	KT + AG	Talk	
9/24	AG	Prologue + Chapters 1-3	
9/25	AG	Chapters 4-6 + Epilogue	
Week 7	**ST & Development**		
9/29	AG	Discussion	

10/1	AG	Guest Lecture: Anand Giridharadas	
10/2	Teaching Team #2	No Readings	Google Slides
Week 8	**ST & Data**		
10/6	YL	Chapters 1-3	Reflection #2
10/8	YL	Chapters 4-6	
10/9	YL	Discussion	
Week 9	**ST & Data**		
10/13	YL	Talk	
10/15	CCP	Introduction + Chapters 1-2	
10/16	CCP	Chapters 9-11 + Afterword	
Week 10	**ST & Data**		
10/20	CCP	Discussion	
10/22	YL + CCP	Intersections	
10/23	Teaching Team #3	No Readings	Google Slides
Week 11	**ST & Futures**		
10/27	GW	Chapters 1 & 2	Reflection #3
10/29	GW	Chapters 3 & 6 + Conclusion	
10/30	GW	Discussion	
Week 12	**ST & Futures**		
11/3	GW + RB	Talk	
11/5	RB	Introduction + Chapters 1-2	
11/6	RB	Chapters 3-5	
Week 13	**ST & Futures**		

11/10	RB	Talk	
11/12	GW + RB	Intersections	
11/13	Teaching Team #4	No Readings	Google Slides
Week 14	**ST & COVID-19**		
11/17	TBD	TBD	Google Slides
11/19	TBD	TBD	Google Slides
11/21	TBD	TBD	Google Slides
Week 15	**Review**		
11/24	Course Review	No Readings	Reflection #4

Assignments

Students will have **reflections** due after we finish with each module. Reflections will require students to reflect on the readings for each of four modules for the class, except the module that they presented for their teaching team exercise. In this reflection, students will be expected to bring together (at least three) ideas and themes from the class with a case study from a context of their choice. Each reflection should be approximately 1200-1500 words long and involve critical analysis of relevance to the class. Each will be worth 15% and graded out of 20 points.

In general, what we are grading for is:

(a) Choosing appropriate content — the topic of the reflection should align and connect with the ideas presented in the module. This also means that it is up to the writer/writing to establish the connections, so that it is clear to the reader why the case study in question was sought as a point of reflection. One paragraph that clearly draws the connection is sufficient for gaining full credit. If the connection is there but the reader must decipher this, 3 out of 5 points. If the connection is unclear to the reader, then 0 or 1 points will be granted.

(b) Clarity in writing — the presentation should be smoothly flowing and complete, with references used where needed, and cited with diligence. Keep in mind that this is not a reflection you would write in the form of a journal entry, or the free writing you do in class sometimes, so the

language should be formal and of presentable quality. Grammar errors and other typos will result in points being lost if they disrupt the flow for the reader. High degree of professionalism evident from the writing will earn full credit. A few grammar errors/absence of citations will mean 3 out of 5 points. More than five corrections needed will mean 0 or 1 points. Citations can follow APA, MLA, Harvard, or any other commonly used style of choice, but students should consistently follow only one style in each reflection.

(c) Connecting back to lessons learned in class — this is important to highlight your takeaways for the readings. Make sure that there are at least three places in the text of your reflection where you are able to connect with (either in agreement or disagreement) three or more ideas brought up in class discussions. Videos you saw in class or ideas shared by a guest lecturer also count. Establishing three clear connections will earn full credit. Fewer than three connections, or three but weak connections will earn 3 out of 5 points. If these connections are weakly established or not at all, then students may expect 0 or 1 points at most.

(d) Cogency of argument — while in the above criteria we focused on presentation quality, here we care about the arguments made, the thoughtfulness shown in the writing, and evidence that you have been following and making sense of the readings and ideas discussed in class. If you choose to focus on a case study of algorithmic bias, for example, you must also explain how it connects to issues around fairness and transparency, for example, and perhaps discuss the steps you might recommend to combat bias. Insights and depth in engagement will earn full credit. If there are insights in parts of the reflection but the writing is careless in other parts, 3 out of 5 points. If there are no insights/depth offered, then 0 or 1 points at best.

Teaching teams will entail a group presentation on the themes discussed in the module. They are free to do this as they please, per rubric below. All students must participate in exactly one teaching team exercise. Students participating in the teaching time for a module need not submit a reflection for that module.

In general, what we are grading for is:
(a) Clarity of presentation — the presentation should be smooth flowing, complete, and self-contained. Slides should be easy to follow, not be text-heavy, and engage their audience. Grammar errors and other typos will cost points. High degree of professionalism evident from the

presentation will earn full credit. A few grammar errors/disjointed flow will mean 3 out of 5 points. More disjointedness/errors will mean 0 or 1 points.

(b) Connecting back to lessons learned in class — this is important to highlight your and the students' takeaways for the module. Make sure that there are at least three places in the slides of your presentation where you are able to connect with (either in agreement or disagreement) three or more ideas brought up in class discussions. Videos shared in class or ideas shared by a guest lecturer also count. Establishing three clear connections will earn full credit. Fewer than three connections, or three but weak connections will earn 3 out of 5 points. If these connections are weakly established or not at all, then students may expect 0 or 1 points at most.

(c) Creative engagement of audience — the teaching teams should all try to engage the class creatively during (or at the end of) their presentation. This could involve a brief discussion point after each section of the presentation, or a set of questions posed in small group activities, a game, anything at all that gets students stimulated! A serious effort to engage will earn full credit. If there is not a significant effort towards generating student interaction, then 3 out of 5 points. If students do not allocate enough time, or do a poor job of engaging students, then 0 or 1 points.

(d) Showing cognition — there will be five minutes for Q&A at the end of class. Students are expected to answer these questions in a way that shows that they understood the concepts they presented. Ideally, all the students should take a moment to participate in the Q&A. If all or most students participate in the Q&A and answer questions well, full credit. If only 1-2 students answer or if the answers are incomplete, 3 out of 5 points. The team might get 0 or 1 points if they are unable to take questions well.

There will be a **COVID-19** assignment based on what we decide to do as a class. The goal will be to take stock of where we are at with COVID at the end of the semester, and make sure we look at it through the lens of all the readings we engaged with through the course. Grading will mirror that of the teaching teams assignment.

A take-home **exam** on the last day of class will involve short-answer questions from all books, lectures, and teaching team sessions. Students will have 24 hours to do this, and the option of answering 8 of 10 questions (or some such combination). These questions will test students'

understanding of concepts across all modules, not facts from the books. An example set of questions from last year will be shared with the students.

Finally, **class participation** counts. Almost everything in class is learned from engaging with the readings and showing up. This set of points is for the latter. Students will be encouraged to share their thoughts in class and on Slack, and participate actively in group work, health permitting. Attending office hours is encouraged. If at any point during the semester students are uncertain about what their grade for this might look like, they are encouraged to ask.

Breakdown of Grades

Reflections — 45% (15% each)

Teaching Teams — 20%

Class Participation — 10%

COVID-19 — 5%

Exam — 20%

Reflections (see above)

5 points each for:

Choice — relevance of content

Connection — citing themes (>= 3) from class

Clarity — presenting clearly and concisely

Cogency — of argument

Teaching Teams (see above)

5 points each for:

Clarity — presenting clearly and concisely

Creativity — engaging the audience

Connection — staying true to course materials

Cognition — answering questions well

Exam (see above)

5 points per question (8/10)

Class Participation

10 points for:

Maintaining attendance (no policing)

Giving 24-hr notice for absences (please)

Not missing more than 2 classes (no policing)

Getting to class on time (please)

Not using personal devices unless asked (no policing)

Submitting assignments on time (can use two late days)

Staying engaged (through audio/video/chat on BlueJeans or Slack)

Doing the readings (every week)

Etc.

Course Policies

Statement on Inclusiveness

We support the Georgia Institute of Technology's commitment to creating a campus free of discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, gender identity, or veteran status. We further affirm the importance of cultivating an intellectual climate that allows us to better understand the similarities and differences of those who constitute the Georgia Tech community, as well as the necessity of working against inequalities that may also manifest here as they do in the broader society.

Safe Spaces

Many of the topics covered in class may be sensitive and students are encouraged to maintain a safe space that allows others to freely and safely express their views without judgment.

Lateness

Students will be allowed two extensions (of 24 hours each) through the semester. If there are additional extenuating circumstances, they should let the teaching team know at the earliest.

Excused Absence

We will follow the guidelines listed here: http://www.catalog.gatech.edu/rules/4/

Communication

Whenever the need arises, students are encouraged to send direct messages to the teaching team on Slack. Students are requested to use email only when absolutely essential. Students are also requested to give at least one full business day for a response.

Academic Integrity and the Honor Code

While students are encouraged to work together and collaborate, they should clearly differentiate their work from that of others, including peers and bibliographical sources. Complete and accurate representation of all direct quotations and paraphrased material is required. Plagiarizing will be addressed in accordance with the Georgia Tech Honor Code (http://honor.gatech.edu/plugins/content/index.php?id=9).

Accessibility

The Georgia Institute of Technology is committed to providing both physical accessibility and access to information resources and technologies to individuals with disabilities. Please see this website for further information - http://www.gatech.edu/accessibility.

Additional Considerations
- If students are concerned about how they will be evaluated, we encourage them to ask as early as possible. This applies to class participation credit in particular.
- Students are encouraged to attend office hours when possible, even if they have nothing in particular to ask or discuss. Especially in the case of remote teaching, this helps us get to know each other a little better.
- Students are encouraged to stay up to date on Slack activity. If they are unfamiliar with the platform, the teaching team can walk them through it. We will not use Slack for grades, which will be available on Canvas.
- There may be minor changes to the syllabus through the semester and they will be announced in class as well as on Slack. Students should stay up to date by getting in touch with a friend or the teaching team. Major announcements will be posted on Canvas. If we forget, please remind us.