Course Syllabus

POS 4931: Technology and Global Politics (Section 3C32)   Fall 2020

Tuesday 4 (10:40-11:30) and Thursday 4-5 (10:40-12:35)

Professor Thiele

thiele@ufl.edu

www.clas.ufl.edu/users/thiele/ (Links to an external site.)

Office Hours: Tuesday 11:45-2:45

About the course

How will your personal, social and political life be impacted, and potentially transformed, over the coming years by emerging technologies such as artificial intelligence, digital media, synthetic biology, nanotechnology, robotics, quantum computing, augmented reality and virtual reality?

Technology and Global Politics prepares students to grapple with the transformations that will ensue from fast-moving technological developments. The course is interdisciplinary, integrative and largely discussion based. Being prepared for the future entails the cultivation of collaboration skills as well as writing, speaking and digital media communication skills. As such, team projects and multi-media class presentations are crucial course components.

Online Format of Course

This course will meet synchronously via Zoom Tuesday 4 (10:40-11:30) and Thursday 4-5 (10:40-12:35).

Students will regularly be placed in Zoom breakout rooms during classtime, where responses to assigned questions will be developed and reported back to the class as a whole.

Office Hours will be Tuesday 11:45-2:45 via Zoom. Instructions for meeting via Zoom during office hours will be provided in class.

Technology requirements: Students should have access to a computer with a camera that has the Zoom desktop app installed. Smartphone access is inadequate.

For information about Zoom, including how to download the desktop app and use it during the course, please go to:

https://elearning.ufl.edu/zoom/ (Links to an external site.)

Scroll down to *Zoom in Canvas, and access the 'Student Step-by-Step Guides'*

Please also download and review this important document: Netiquette Guide for Online Courses (Links to an external site.)

It is a *UF Student Honor Code* violation to share Zoom links with people outside of the course.

 (Links to an external site.)

Student Learning Outcomes

Students taking this course will learn how to:

1. Critically analyze national and international risks, dangers, costs, benefits and opportunities stemming from technological developments.
2. Engage and understand diverse perspectives in an age of globalization.
3. Think responsibly and creatively about the future.

4. Communicate and collaborate with diverse individuals to develop and share knowledge pertaining to the political, social and ethical challenges associated with technology.

Work expectations:

Students will be reading books and journal articles, listening to podcasts, and viewing films and videos. Classes will be discussion based over Zoom. Zoom attendance and participation is required.

Prof. Thiele is eager to respond to all email inquiries—unless the requested information is available on Canvas, in other documents provided, or was addressed in class. If you do not receive a response to an email inquiry, it is because the information was already made available to you. In such cases, refer to available documents or confer with a classmate.

Required Readings:

Rob Reid, *After On* (Del Rey, 2017; FYI, the Audible version is excellent)

Other online required readings and resources are listed in the Course Schedule.

Assignments and Grading

Attendance and Participation: Maximum score 15 points

You will start with 15 points, and a maximum of 1 point will be deducted for each absence or class in which you are not satisfactorily prepared and participating. If you arrive to the class after attendance is taken, you will be marked absent. Deductions may also occur based on the quality of your contributions to the team project, as evaluated by your teammates.

The benefits you receive from this course will largely be determined by the diligence and thoroughness with which you and your classmates engage the assigned resources and are

consistently well prepared for class discussions and team work sessions. To receive full participation marks, you will need to contribute thoughtful questions, observations, and well-grounded assertions on Packback and to most class sessions based on insights and information from assigned readings, resources and discussions. Only students who constructively and enthusiastically engage themselves in the class and are well informed will receive strong grades for participation.

Medical documentations is required for an excused absence.

Throughout the semester, you will participate in Zoom Breakout Rooms with two or more other students to discuss specific issues. Questions and challenges presented during lectures will serve as the topics for these 10-12 minute discussions.

At the end of Breakout discussions, students will be called upon to present their group's deliberations and conclusions.

A response will be considered outstanding if it accurately and insightfully analyzes the issue, and creatively approaches its resolution in an articulate, persuasive manner. Be aware that simplistic solutions are seldom sustainable. Oftentimes, the most creative approach to problem-solving entails uncovering the complexity of the challenge and deepening the questions that should be asked. Good questions inform. Deep questions transform.

Packback Questions and Responses: Maximum score 15 points

Throughout the semester students will employ *Packback Questions*, a platform that facilitates online discussions. Packback prompts you to craft stimulating questions that build on what we are covering in class and integrate real-world issues and developments.

Starting September 15 and concluding November 18, there will be a Weekly Tuesday at midnight EST deadline for submissions of your Packback question, and a Weekly Wednesday at midnight EST deadline for submission your two responses. Everyone starts with 15 points, and deductions will be made based on the quality of your questions and responses.

You should submit the following per each deadline period:

- 1 open-ended Question per week with a minimum Curiosity Score of 30, worth a maximum of 1 point

- 2 Responses to other students' questions per week, each worth a maximum of 0.25 points

You can edit a question after you post it, but only up to the time another student responds to it.

How to Register on Packback:

1. Navigate to https://questions.packback.co (Links to an external site.)

4. Click "Sign up for an Account"
   Note: If you already have an account on Packback you can log in with your credentials.
5. Enter our class community's lookup key into the "Looking to join a community you don't see here?" section in Packback at the bottom of the homepage. Community Lookup Key: 9325510a-c7b6-4cdb-89a5-738be19f4c50
6. Follow the instructions on your screen to finish your registration. The cost will be $25.

How to Get Help from the Packback Team: If you have any questions or concerns about Packback throughout the semester, please read their FAQ at help.packback.co (Links to an external site.). If you need more help, contact their customer support team directly at help@packback.co

For a brief introduction to Packback Questions and why we are using it in class, watch Welcome to Packback Questions (Links to an external site.) and How to Write Amazing Posts on Packback Video (Links to an external site.)

Term paper: Maximum score 40 points

First Draft due October 21 at noon

Final Draft due November 4 at noon

The term paper is a 2500-word research and writing project on the current and potential political uses, misuses and impacts of an emerging technology. A specific technology will be assigned to you. You will be submitting a first draft on October 21 by noon. Failure to submit a full-length, properly formatted and cited first draft accompanied with a bibliography on time (the bibliography does not figure into the word count) will result in a 5-point deduction from your term paper grade. You will work with another student in class to review and edit your draft on October 22. The final version of your term paper is to submitted November 4 by noon. A term paper submitted after the deadline will incur a 1/2 letter grade

deduction for each day it is late. The improvement demonstrated between your first and final drafts will figure into the assessment of your final grade for the assignment.

Your term paper will be assessed for its organization, writing clarity, informativeness, the cohesiveness and persuasiveness of its argument, and the quality of its research and sources. Please review this guide on style and grammar (Links to an external site.).

Collaborative PowerPoint Presentation and Script: Maximum score 30 points

Due November 30 at noon

You will work as part of a team of 3 or 4 students, both during and outside of class time, to research, create and present a 17-20 minute PowerPoint on a topic that will be assigned to you. Your team project topic will NOT be the same as your term paper topic. A script for the PowerPoint and a list of consulted resources will be part of the assignment. Your PowerPoint presentation and script are due November 30 at noon. Zoom presentations in class will be on December 1, 3 and 8.

Grading Scale:

A	100-93%	C	< 77 – 73%
A-	< 93-90%	C-	< 73 – 70%
B+	< 90– 87%	D+	< 70 – 67%
B	< 87– 83%	D	< 67 – 63%
B-	< 83 – 80%	D-	< 63 – 60%
C+	< 80 – 77%	E	< 60 %

N.B. – Grades are not rounded up. So, for example, a 92.99 is an A-, and an 86.99 is a B.

For more information, see UF's grading and grading policies. (Links to an external site.)

Honor Code - Academic honesty and integrity are fundamental values of the University community. 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 (Links to an external site.) enumerates specifically prohibited behaviors and sanctions. If you have any questions or concerns, please consult with the instructor or TAs in this class.

All students are required to abide by UF's Honor Code. (Links to an external site.) An academic honesty offense is defined as the act of lying, cheating, or stealing information so that one gains academic advantage. Plagiarism in presentations or term papers will result in failure of the course.

Students with disabilities – If you 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.

Course evaluation - 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 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 ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at gatorevals.aa.ufl.edu/public-results/

Students are encouraged to provide both a mid-term and final course evaluation.

Academic and Campus Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu

Library Support (Links to an external site.)

Teaching Center (Links to an external site.)- Broward Hall, General study skills and tutoring.

Writing Studio (Links to an external site.)- 2215 Turlington Hall, Help brainstorming, formatting, and writing papers.

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit umatter.ufl.edu/ to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit counseling.ufl.edu/ or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit shcc.ufl.edu/.

University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; ufhealth.org/emergency-room-trauma-center.

For information relating to protection of your privacy as a UF Student, visit this site: [https://privacy.ufl.edu/privacy-policies-and-procedures/onlineinternet-privacy-statement/ (Links to an external site.)](https://privacy.ufl.edu/privacy-policies-and-procedures/onlineinternet-privacy-statement/)

For information relating to the protection of your privacy in relation to course participation, see these documents for [Zoom (Links to an external site.)](#) and [CanvasLinks to an external site.](#)

Course Schedule

September 1: Introduction to class: "[The Politics of Technology (Links to an external site.)](#)" at the *Frontiers of Political Science* (2:2: May 2020.)

September 3: The Politics of Technology in a Digital Age

        Readings: Leslie Paul Thiele, "Technology and the Human Prospect" (PDF is in Files; Leslie Paul Thiele, "Digital Politics is the Game: See What Happens When Scholars Play It Well!" *Perspectives*, 16:4, 1123-1128, December 2018; Yuval Noah Harari, "[Why Technology Favors Tyranny (Links to an external site.)](#)" *The Atlantic,* October 2018; Eli Pariser, TED Talk "[Beware Online Filter Bubbles (Links to an external site.)](#);" "[Dirty Digital](#)

[Politics Cambridge Analytica Uncovered: Secret filming reveals election tricks" (Links to an](#)

[external site.)](#)

September 8 & 10: Cognitive De-skilling and Digital Distancing in the Age of Social Media

Readings: Leslie Paul Thiele, "Digital Distancing: Creative Resistance to the Attention Economy" (PDF is in Files); Jason Belini, "[The Robot Revolution (Links to an external site.)](#);" Japanese "Pepper" robot performs Buddhist funerals: [Pepper the robot](#)

[performs Buddhist funeral rites (Links to an external site.)](#)   ; "Why every social media site is a dumpster fire." *YouTube,* Vox, 21 Sep 2018, [Why every](#)

[social media site is a dumpster fire (Links to an external site.)](#)   ; Lanier, Jaron. "[Ten Arguments for Deleting Your Social Media Right Now; (Links to an external site.)](#)" Andrew Sullivan, "[I Used to be a Human Being (Links to an external site.)](#)." *New York Magazine* (September 19, 2016); [Why Your Brain Can't Fight Distraction (Links](#)

[to an external site.)](#)   (8 minute video); PackBack's [Educational AI Ethics (Links to an external site.)](#) statement

September 15 & 17: Augmented and Virtual Reality

  Readings: *After On*, up to p. 53 (Audible through Chapter 4); *After On podcast*: Meron Gribetz on Augmented Reality; "Recognizr: Facial Recognition Coming to Android Phones; (Links to an external site.)" NeoScribe, "Augmented Reality 2030" at Augmented

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Reality 2030 (Links to an external site.)   ; Gatebox, "Living with your favorite character": Gatebox - Promotion Movie "OKAERI"_english (Links

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to an external site.)   ; Jason Bellini, WSJ, "Deep Fake Videos: Why Seeing isn't Believing (Links to an external site.)"; Check out: http://www.metaverseroadmap.org/overview/02.html#vw (Links to an external site.); and https://www.magicleap.com (Links to an external site.); Listen to Prof. Thiele's interview with Rob Reid when he visited UF, which he posted to his podcasts: Episode 42: Life, the Universe & Everything – Live, from Florida! (Links to an external site.)

September 22: Consciousness, Neuroscience and the Future of Human Nature

  Readings: *After On*, 53-121 (Audible through Chapter 9); *After On podcast*: Adam Gazzaley on Consciousness and Neuroscience and Mary Lou Jepsen on Neural Imaging and Telepathy; Jason Bellini, "AI: The Robots are Now Hiring (Links to an external site.);" Leslie Paul Thiele, "The Decline of Yuck: Moral Judgment in the Anthropocene," *Technology in Society* 59, November 2019

September 24: Explanation and Selection of Term Paper topics

September 29 and October 1: Privacy, Surveillance and Social Engineering

Readings: *After On*, 121-196 (Audible through Chapter 17); *After On podcast*: Cindy Cohn on Privacy and Government Intrusion; TED Talk Scott Galloway on "[How Amazon, Apple, Facebook and Google manipulate our emotions (Links to an external site.)](#);" Zeynep Tufecki, "[We're Building a Dystopia Just to Make People Click on Ads (Links to an external site.)](#); Watch the *Black Mirror* episode "Nosedive;" Matthew Carney, "[Leave No Dark Corner (Links to an external site.)](#);" [(Links to an external site.)](#)"Exposing China's Digital Dystopian Dictatorship," Foreign Correspondent, ABC News (Australia): [Exposing China's Digital Dystopian Dictatorship | Foreign Correspondent (Links to an external site.)](#)

; Check out: [http://neurosky.com/about-neurosky/ (Links to an external site.)](#); Check out the quantified self at Measured Me, [https://measuredme.com/new-measuredme-blog/ (Links to an external site.)](#)

October 6 & 8: Synthetic Biology and Bioengineering

Readings: *After On*, 196-252 (Audible through Chapter 22). *After On podcast*: Andy Hessel on Synthetic Biology and George Church on Bioengineering; Rob Reid, "[The Ender (Links to an external site.)](#):" Thiele, L.P. "Nature 4.0: Assisted Evolution, De-extinction and Ecological Restoration Technologies," *Global Environmental Politics*, 20:3, 1-19, July 2020.

October 13 & 15: Quantum Computing, Predictive Analytics and the Internet of Things

Readings: *After On*, 252-285 (Audible through Chapter 25); *After On podcast*: Steve Jurveltson on Quantum Computing and Daniel Kraft on Exponential Medicine; Chris Anderson, "[The End of Theory: The Data Deluge Makes the Scientific Method Obsolete (Links to an external site.)](#)" *Wired,* June 23, 2008; Leslie Paul Thiele, "Rise of the Centaurs" (PDF is in Files).

October 20: Terrorism and Human Rights at the End of Nature

Readings: *After On*, 289-382 (Audible through Chapter 31); *After On podcast*: Sam Harris on Terrorism"; Leslie Paul Thiele, "Human Rights at the End of Nature," *Journal of Human Rights,* 18:1, 19-35, March 2019.

October 21: Draft of term paper due at noon

October 22: In-class reviewing of term paper first drafts

October 27: Superintelligence

Readings: *After On*, 382-489 (Audible through Chapter 35); *After On podcast*: James Barrat on Dangers of Superintelligence; Concluding pages of Isaac Assimov's *I, Robot* (PDF is in Files); Nicholas Thompson and Ian Bremmer, *Wired:* "The AI Cold War that Could Doom Us All (Links to an external site.);" AI: Mankind's Last Invention: Artificial Intelligence: Mankind's Last Invention (Links to an external site.)

Jeremy Howard explores machine learning in this TEDx talk; (Links to an external site.) Deep Learning: Google's Deep Mind Explained! - Self Learning A.I. (Links to an external

site.)   ; Wait But Why? on "The AI Revolution (Links to an external site.);" AI Codes its own 'AI Child': AI Codes its Own 'AI Child' - Artificial

[Intelligence breakthrough! (Links to an external site.)](#)   ; Maureen Dowd, "[Elon Musk's Billion-Dollar Crusade to Stop the A.I. Apocalypse (Links to an external site.)](#)," *Vanity Fair*, March 1, 2017; "[Neural network AI outperforms humans in reading General Language Understanding Evaluation (Links to an external site.)](#):" GLUE) [(Links to an external site.)](#)*;* Miquel Casas, *"[The technological singularity and the transhumanist dream (Links to an external site.)](#)"* [(Links to an external site.)](#)

October 29: Assignment of Teams and TeamWork Topics

November 3: Aliens and Annihilation

Readings: *After On*, 489-547 (Audible through Chapter 38): *After On podcast*: Steven Webb on Fermi's Paradox/Where are all the aliens? and Episode 40: Avi Loeb on Our Interstellar Visitor and Martin Rees "On the Future"; Wait But Why? on "[The Fermi Paradox (Links to an external site.)](#)": Nick Bostrum, "The Vulnerable World Hypothesis," *Global Policy* 10:4, 2019, pp. 455-476, available at: [https://nickbostrom.com/ (Links to an external site.)](#)

November 4: Term paper due at noon

November 5: TeamWork session

November 10: The Future of Nature

Readings: Leslie Paul Thiele, "Geoengineering and Sustainability," *Environmental Politics*, 28:3, 460-479, March 2019; Leslie Paul Thiele, "Integrating Political and Technological Uncertainty into Robust Climate Policy" (PDF is in Files). Paul J. Crutzen and Christian Schwägerl, "[Living in the Anthropocene: Toward a New Global Ethos (Links to an external site.)](#)," *YaleEnvironment360,* January 24, 2011; Gerst, M.D., Raskin, P.D. and Rockström, J., 2014. "[Contours of a Resilient Global Future (Links to an external site.)](#)", *Sustainability*, 6: 123-135; Kirtman et al, "[Future Climate Change Scenarios for](#)

[Florida (Links to an external site.)](#)," in *Florida's climate: Changes, variations, & impacts* (pp. 533–555).

[(Links to an external site.)](#)

November 12: TeamWork session

November 17: Surveillance Capitalism

    Readings: TBA

November 19: TeamWork session

November 24: Transhumanism

    Readings: Watch *Ex Machina* and be prepared to discuss it after the Thanksgiving break.

December 1, 3 & 8: Team PowerPoint Presentations

    Readings: TBA

Bibliographic and Online Resources for Your Exploration:

Non-fiction monographs

Agrawal, Ajay, Joshua Gans and Avi Goldfarb. 2018. *Prediction Machines*

Allenby, Bradley, and Daniel Sarewitz. 2011. *The Techno-Human Condition*

Alter, Adam. 2017. *Irresistible: The Rise of Addictive Technology and the Business of Keeping Us*

     Hooked.

Barrat, James. 2015. *Our Final Invention: Artificial Intelligence and the End of the Human Era*

Barrett, Dierdre. 2010. *Supernormal Stimuli*

Bess, Michael. 2015. *Our Grandchildren Redesigned: Live in the Bioengineered Society of the   Future*

Brynjolfsson, Erik and Andrew McAfee. 2017. *Machine, Platform, Crowd*

Brynjolfsson, Erik and Andrew McAfee. 2014. *The Second Machine Age*

Bostrom, Nick. 2014. *Superintelligence.*

Butler, Samuel, 1872. *Erewhon*

Carr, Nicholas. 2014. *The Glass Cage: How Computers are Changing Us*

Carr, Nicholas . 2011. *The Shallows: What the Internet is Doing to Our Brains*

Carr, Nicholas. 2016. *Utopia is Creepy*

Church, George & E. Regis. 2012. *Regenisis: How Synthetic Biology will Reinvent Nature and Ourselves*

Dauvergne, Peter. 2020. *AI in the Wild: Sustainability in the Age of Artificial Intelligence*

Diamandis, Peter and Steven Kotler. 2014. *Abundance: The Future is Better than you Think*

Domingos, Pedro. 2015. *The Master Algorithm.*

Ellul, Jacques. 1964. *The Technological Society*

Foroohar, Rana. 2019. *Don't be evil: How Big Tech Betrayed its Founding Principles—and All of Us*

Frischmann, Brett and Evan Selinger. 2018. *Re-engineering Humanity*

Fukuyama, Francis. 2002. *Our Posthuman Future: Consequences of the Biotechnology Revolution*

Garreau, Joel. 2005. *Radical Evolution*

Grinspoon, David. 2017. *Earth in Human Hands*

Harraway, Donna. 1990. *Simians, Cyborgs, and Women: The Reinvention of Nature*

Harari, Yuval Noah. 2016. *Homo Deus: A Brief History of Tomorrow*

Heidegger, Martin. 1954. *The Question Concerning Technology*

Howard, Philip. 2015. *Pax Technica: How the Internet of Things May Set Us Free or Lock Us Up*

Hughes, James. 2004. *Citizen Cyborg*

Kelly, Kevin. 2011. *What Technology Wants*

Kelly, Kevin. 1994. *Out of Control*

King, Brett et al. 2016. *Augmented*

Kurzweil, Ray. 2005. *The Singularity is Near*

Kurzweil, Ray. 2012. *How to Create a Mind*

Lanier, Jaron. 2018. *Ten Arguments for Deleting Your Social Media Accounts Right Now*

Lee, Kai-Fu. 2018. *AI Super-Powers*

Lewis, C. S. 1944. *The Abolition of Man*

Lilley, Stephen, ed. 2013. *Transhumanism and Society: The Social Debate over Human Enhancement*

McKibben, Bill. 2004. *Enough: Staying Human in an Engineered Age*

McKibben, Bill. 2019. *Falter: Has the Human Game Begun to Play Itself Out*

Markoff, John. 2015. *Machines of Loving Grace*

Malone, Thomas. 2018. *Superminds*

Morozov, Evgeny. 2012. *The Net Delusion: The Dark Side of Internet Freedom*

Mumford, Lewis. 1970. *The Myth of the Machine*

Nietzsche, Friedrich. 1885. *Thus Spoke Zarathustra*

Noble, David. 1999. *The Religion of Technology: The Divinity of Man and the Spirit of Invention*

O'Neil, Cathy, 2017. *Weapons of Math Destruction*

Pariser, Eli. 2011. *The Filter Bubble: What the Internet Is Hiding from You*

Pentland, Alex. 2014. *Social Physics: How Good Ideas Spread*

Pinker, Steven. 2018. *Enlightenment Now*

Postrel, Virginia. 1999. *The Future and its Enemies*

Reese, Byron. 2013. *Infinite Progress*

Reese, Byron. *The Fourth Age: Smart Robots, Conscious Computers, and the Future of Humanity.*

Rees, Martin. 2018. *On the Future*

Ross, Alec. 2016. *The Industries of the Future*

Rubin, Peter. 2018. *Future Presence*

Rushkoff, Douglas. 2013. *Present Shock*

Silver, Lee. 2007. Remaking Eden

Simon, Charles. 2018, *Will Computers Revolt*

Susskind, Jamie.2018. *Future Politics*

Sunstein, Cass. 2017. *#Republic: Divided Democracy in the Age of Social Media*

Tegmark, Max. 2017. Life 3.0

Tenner, E. 1997. *Why Things Bite Back: Technology and the Revenge of Unintended Consequences*

Tofler, Alvin. 1970. *Future Shock*

Turkle, S. 2017. *Alone Together: Why We Expect more from Technology and Less from Each Other*

Twenge, Jean M. 2017. *iGen: Why today's Super-Connected Kids are Growing Up Less Rebellious, More*

   Tolerant, Less Happy—and Completely Unprepared for Adulthood

Vallor, Shannon. 2016. T*echnology and the Virtues*

Williams, Florence. 2017. *The Nature Fix*

Winner, Langdon. 1989. *The Whale and the Reactor*

Wu, Tim. 2016. *The Attention Merchants*

Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism*

Fiction

"Modern science fiction is the only form of literature that consistently considers the nature of the changes that face us, the possible consequences, and the possible solutions."   Isaac Assimov

Assimov, Isaac. *I, Robot*

Atwood, Margaret. *Oryx and Crake,* and *In the Year of the Flood*

Banks, Iain. *Consider Phlebas*

Brown, Dan. *Origin*

Butler, Octavia, *Parable of the Sower*

Card, Orson Scott. *Ender's Game*

Clarke, Authur C. *2001: A Space Odyssey* and *Childhood's End*

Cline, Ernest. *Ready Player One*

Dick, Philip K. *Do Androids Dream of Electric Sheep*

Forster, E. M. [The Machine Stops (Links to an external site.)](#)

Gibson, William. *Neuromancer*

Heinlein, Robert. *The Moon is a Harsh Mistress*

Herbert, Frank. *Dune*

Huxley, Aldous. *Brave New World*

Marlowe, Christopher. *Dr. Faustus*

McKibben, Bill. *Radio Free Vermont*

McCarthy, Cormac. *The Road*

McEwan, Ian. *Machines Like Me*

Naam, Ramez. *Nexus*

Orwell, George. *1984*

Powers, Richard. *The Overstory*

Shelley, Mary Wollstencraft. *Frankenstein, or the Modern Prometheus*

Skinner, B.F. *Walden Two*

Stephenson, Neal. *Snow Crash*

Stephenson, Neal. *Diamond Age*

Suarez, Daniel. *Daemon*

Vinge, Vernon. *A Fire upon the Deep*

Vonnegut, Kurt. *Player Piano*

Wells, H.G. *The Island of Dr. Moreau*

Films

<u>Highly Recommended:</u>

Ex Machina

Black Mirror (Netflix series)

Metropolis (Fritz Lang, 1926)

Colossus: The Forbin Project

The Machine

Blade Runner (original, not Blade Runner 2049)

Her

The Singularity is Near

Supersapiens (documentary)

Manchurian Candidate (2004 version – good; 1962 – better)

The Matrix

The Terminator

Gattaca

2001: A Space Odyssey

Self/less

The Circle

Minority Report

Wall-E

Westworld (Netflix series)

The Future 360 (Discovery Channel documentary)

Lawnmower Man

Acceptable, if you have nothing better to watch:

The Feed (series; great start and premise, but then gets infected by zombie themes)

Ready Player One

A Clockwork Orange Bicentennial Man

Transcendent Man

The Boys from Brazil (cloning Hitler)

I, Robot

Splice

Transcendence

A.I. Artificial Intelligence

The Island

Elyseum

Ender's Game

Transcendence

HUMANS (UK series on AMC)

Morgan

Cyborgs. Should We Be Better Than We Are?

Online videos and Podcasts

Center for Humane Technology. 2019. Accessed at: https://humanetech.com/ (Links to an external site.)

Ford, Martin. "How we'll earn money in a future without jobs (Links to an external site.)"

Harris, Sam. "Can We Build AI Without Losing Control Over It?" (Links to an external site.)

Long Now Foundation, Seminars about Long-term Thinking Podcast: almost all of these are worthwhile, e.g. Paul Saffo: The Creator Economy; Michael Shermer: The Long Arc of Moral Progress; Ramez Naam: Enhancing Humans, Advancing Humanity; Drew Endy and Jim Thomas on Synthetic Biology; Michael West and Ken Dychtwald on Human Life Extension

Robots: Boston Dynamics robot: Atlas, The Next Generation (Links to an external site.)

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. And see "A Bionic appracg ti orosthetics" Darnofsky, Marcy vs Nita Farahani, "Should we Design our Babies" podcast or video

In Depth: Should We Design Our Babies? :((Links to an external site.)

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"Slaughterbots," fictional depiction of flying killer drones the size of beetles:

[Slaughterbots (Links to an external site.) (Links to an external site.)](#)

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Reports, articles and websites:

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Annas, George et al. 2002. "Protecting the Endangered Human: Toward an International Treaty Prohibiting

Center for Humane Technology: [https://humanetech.com/ (Links to an external site.)](https://humanetech.com/)

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Food for Thought:

"The best way to predict the future is to create it."

Alan Kay (who created the interface for the first Apple Macintosh)

"When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong. The only way of discovering the limits of the possible is to venture a little way past them into the impossible. Any sufficiently advanced technology is indistinguishable from magic."

Arthur C. Clarke ("Three laws of prediction")

"Impossible to see, the future is!" and so "Careful you must be when sensing the future….The fear of loss is a path to the Dark Side"

Master Yoda, from *Attack of the Clones and Revenge of the Sith*

Journal sources for your term paper:

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Annual Review of Political Science

British Journal of Political Science

Canadian Journal of Political Science

China Quarterly

Comparative Political Studies

Comparative Politics

Contemporary Political Theory

Journal of Conflict Resolution

Constellations

Critical Review

Daedalus

Journal of Democracy

Democratization

Environmental Ethics

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