SYLLABUS – POSTCOLONIAL/DECOLONIAL SCIENCE AND TECHNOLOGY STUDIES

A three-hours-long graduate seminar in a weekly basis

As of Fall 2019.

Yoehan Oh | ohy [A.T.] rpi [D.O.T.] edu

This is a sixteen-weeks-long, including one reading week, graduate seminar, examining the multiscalar interactions between knowledge, artifacts, and geopolitical actors and structures, seen from the perspectives of social and political theories, especially postcolonial and decolonial studies. This class aims to help students develop the capabilities of addressing the following three questions: how to do social studies of scientific knowledges and technical artifacts that are globally circulated, accredited, ending up universal, or open to controversies? How to expose STS concepts and methods to the postcolonial, decolonial, and anti-imperial sensibilities? And how to do social studies of postcolonial objects/subjects in technoscience? These three questions and our discussions will be unfolded along Part I to Part III after an introductory week as the semester goes.

Each week, students will be expected to read and prepare to discuss four (or five on one occasion) research articles/chapters. For some weeks, in addition to several common reading materials, multiple topics and the corresponding articles/chapters within the topics will be given together, among which students will choose one topic. To prevent any topic from being unselected, students will be asked to select topics in advance a week before. Through those articles, not just will influential postcolonial STS scholars such as Sandra Harding, Warwick Anderson, Gabrielle Hecht, Kim Tallbear, Helen Verran, David Turnbull, and Kim Fortun be introduced; but also will much wider humanistic and interpretive social scientists as well as historians of science and technology be presented when it comes to postcolonialities and technoscience during the last decade since 2010 (***Figure 1***).
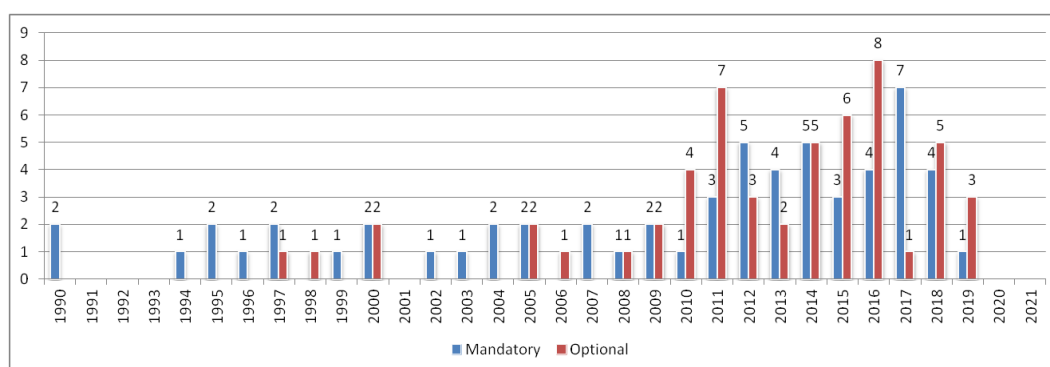

Figure 1. Years of publication of 51 mandatory readings and 52 optional ones, spanning three decades.

1. REQUIREMENTS AND GRADING

The grading will be based on response papers (40%) and term papers (60%). First, along fifteen weeks with reading materials, students are required to submit eight response papers, each of which accounts for 5% of the whole points. Each response paper will be up to two pages, in single-space, containing the summaries, juxtapositions, assessments, and critiques of various authors' thoughts in the corresponding week (or/and of those discussed during previous weeks). Each submission will be electronically turned in by the starting time of each class. Any submission later than the starting time of the class will not be regarded as a legitimate submission. Please take your due date and time seriously. Within two weeks upon submission, each response paper will be returned with some comments, graded on a 10 points basis, between 7 and 10, incrementing by 1.

The term paper will identify and address the gaps, incoherences, tensions, or latent interstices, in the conceptual, theoretical, and methodological senses, in the postcolonial and decolonial STS understanding of our technoscientific worlds. Students don't have to do empirical case studies, but they may do if they would like. It will be up to 6,000 words long plus reference. The proposals of term Papers should be electronically turned in by 23:59 on the day of Week 12 class. And the final term paper should be electronically turned in by 23:59 at four days before the end of the semester. The grading will be on a 60 points basis, between 48 and 60, incrementing by 3.

2. SUGGESTED READINGS

Students can be referred to the materials below when they embark on this seminar and when they survey for term paper topics.

an Introduction (in the STS Handbook)

Anderson, Warwick, and Vincanne Adams. 2008. "Pramoedya's chickens: Postcolonial studies of technoscience." *The Handbook Of Science And Technology Studies*. 3rd Edition, edited by Edward J. Hackett, Olga Amsterdamska, Michael E. Lynch and Judy Wajcman. 181-204. MIT Press. [Earlier version was: Anderson, Warwick. 2002. "Introduction: postcolonial technoscience." Social Studies of Science, 32 (5–6). 643-658.]

Foundational works in postcolonial theories

Fanon, Frantz. [1952/]1967. "The fact of blackness," in *Black Skin/White Masks*. trans. Charles Lam Markmann. Grove Press, Inc.

Said, Edward W. 1978. "Introduction." *Orientalism*, New York: Pantheon. 1-29.

Hall, Stuart. 1980. "Race, Articulation and Societies Structured in Dominance." In: *Sociological Theories: Race and Colonialism.* Edited by UNESCO. Paris: UNESCO. 305–345.

Hall, Stuart. 1992. "The West and the Rest: Discourse and Power." *Formations of modernity*. Polity Press; The Open University. 185-227. [Reprinted in *Race and Racialization: Essential Readings.* Das Gupta, Tania. et al (eds). Toronto: Canadian Scholars Press. 2007. 56-63.]

Mohanty, Chandra Talpade. 1986. "Under western eyes: Feminist scholarship and colonial discourses" *Boundary 2* Vol. 12, No. 3, On Humanism and the University I: The Discourse of Human (Spring - Autumn, 1984): 333-358.

Mohanty, Chandra Talpade. 2003. ""Under western eyes" revisited: Feminist solidarity through anticapitalist struggles." *Signs: Journal of Women in culture and Society* 28(2): 499-535.

Anzaldua, Gloria. [1987/1999]. "How to tame a wild tongue" in *Borderlands/La Frontera: The New Mestiza*, 75-86. San Francisco: Aunt Lute Books.

Spivak, Gayatri Chakravorty. 1988. "Can the Subaltern Speak?" in *Marxism and the Interpretation of Culture.* Eds. Cary Nelson and Lawrence Grossberg. Urbana, IL: University of Illinois Press. 271-313.

Tuck, Eve, and K. Wayne Yang. 2012. "Decolonization is not a metaphor." *Decolonization: Indigeneity, education & society* 1, no. 1, 1-40. https://jps.library.utoronto.ca/index.php/des/article/view/18630.

Addressing multiscalar topics

Edwards, Paul N. 2003. "Infrastructure and modernity: Force, time, and social organization in the history of sociotechnical systems." *Modernity and Technology,* edited by Misa, Thomas J., Philip Brey, and Andrew Feenberg, 185-226. MIT Press.

Aslanian, Sebouh David, Joyce E. Chaplin, Ann McGrath, and Kristin Mann. 2013. "AHR Conversation How Size Matters: The question of scale in history." The *American Historical Review* 118(5): 1431-1472. https://doi.org/10.1093/ahr/118.5.1431.

Regarding Global Development (in the STS Handbook)

Shrum, Wesley, & Shenhav, Yehouda. 1995. "Science and technology in less developed countries." *Handbook of Science and Technology Studies,* second edition, edited by Sheila Jasanoff, Gerald E. Markle, James C. Peterson & Trevor Pinch, 627-651. Sage. https://dx.doi.org/10.4135/9781412990127.n27.

Susan E. Cozzens, Sonia Gatchair, Kyung-Sup Kim, Gonzalo Ordóñez, and. Anupit Supnithadnaporn. 2008. "Knowledge and development." *The Handbook of Science and Technology Studies*, Third Edition, edited by, Edward J. Hackett, Olga Amsterdamska, Michael E. Lynch, and Judy Wajcman, 787-811. MIT Press.

Khandekar, Aalok, Koen Beumer, Annapurna Mamidipudi, Pankaj Sekhsaria, and Wiebe E. Bijker. 2017. "STS for Development." *The Handbook of Science and Technology Studies.* Fourth Edition, edited by Ulrike Felt, Rayvon Fouche, Clark A. Miller, and Laurel Smith-Doerr, 665-693. MIT Press.

3. MORE READING LISTS IF YOU TAKE SOME THEMES FAR SERIOUSLY

Full syllabi

For students interested in the subject matters in this seminar, they can be referred to additional sets of literature found in three other syllabi. I would like to introduce those three, by indicating the differences between these earlier syllabi's approaches and that of this syllabus. First, if student are interested in the intersections where social studies of infrastructure on the one hand, and area studies, post/colonial studies, and "Global South" studies on the other, they can be referred to Gabrielle Hecht's syllabus in 2019 Winter entitled "Infrastructure and Power in the Global South."[1] Based on foundational scholars' works in an initial week, Hecht's syllabus shows a mixture of various topics in infrastructures in Global South areas such as Energy and water; Mobility; Racialized Knowledge Infrastructures; Security; Toxicity; City Shit; and Capital, Austerity, Debt. While some research works appear in common both in Hecht's syllabus and this syllabus, the foci are different. Hecht aims to examine the specificities of diverse and infrastructural settings along with the global power dynamics, whereas this syllabus tries to show the inseparability of the mainstream STS concepts and methods from postcolonial perspectives, thus framing many concepts and middle-range theories through geopolitical and postcolonial lenses.[2]

The other syllabi are not up to date: one is Eden Medina's syllabus in Spring 2011 entitled "Geographies of Technology,"[3] and another is Kim TallBear's one in also Spring 2011 entitled "Indigenous, Feminist, and Postcolonial Approaches to Science, Technology, and Environment."[4] Medina's syllabus was focused more on the moves of technological artifacts and the involved actors and agencies than those of scientific knowledge and practices. While her syllabus attended to broad approaches from various disciplines, such as history, anthropology, sociology, geography, and science and technology studies, this

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[1] https://www.academia.edu/37728377/Infrastructure_and_Power_in_the_Global_South.

[2] For discussions upon middle theories in STS, see the special issue of *Science, Technology & Human Values* in Vol. 32, No. 6, November, 2007, "Middle-Range Theories in Science and Technology Studies."

[3] https://www.informatics.indiana.edu/edenm/teaching/I590_Syllabus_Geographies_of_Technology.pdf.

[4] http://indigenousgenomicsgovernance.org/blog/2011/04/30/spring-course-indigenous-feminist-and-postcolonial-approaches-to-science-technology-and-environment/.

syllabus is mainly concerned with postcolonialism-inflected concepts in social theories and STS.

Third, TallBear's syllabus specifically attended to ten book-length canons of indigenous and postcolonial STS like *Hunters and Bureaucrats: Power, Knowledge, and Aboriginal-State Relations in the Southwest Yukon* by Paul Nadasdy (2003, Vancouver and Toronto: The University of British Columbia Press). In contrast, this syllabus aggregates a vast array of articles and chapters, reflecting the recent research outputs in the 2010s so as to help students get practical senses of how to design, conduct, and situate various kinds of postcolonial case studies of technosciences.

Compact syllabi

For anyone interested in postcolonial and decolonial approaches toward digital humanities, they can be referred to a syllabus entitled "De/Post/Colonial Digital Humanities," composed by Roopika Risam and micha cárdenas.[5] It is not a syllabus set for a-semester-long course, but was intended for a five-days-long workshop during the Humanities Intensive Learning and Teaching (HILT) 2015,[6] in the combination of hands-on experience and informed dicussions. In addition, their syllabus has an ample amount of reading list and a well curated list of digital humanity projects from the post- and de-colonial perspectives. While the link to the syllabus file is broken, the Internet Archive has preserved the file as of 2015.[7]

List for wider publics including scientists and technologists

Chanda Prescod-Weinstein, a "theoretical physicist specializing in early universe cosmology," compiled a reading list entitled " Decolonising Science Reading List" and has updated it.[8] It is not strictly limited to postcolonial studies of science, but including general STS works like laboratory studies and non-Western history of science, philosophy of science, and Wikipedia articles. Her list will give a chance of putting yourself in scientists' shoes to see how scientists become sensitized by postcolonial and decolonial thoughts when it comes to seeing their own works in reflexive ways.

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[5] https://dhtraining.org/hilt/course/depostcolonial-digital-humanities/.

[6] http://dhtraining.org/hilt/conferences/hilt-2015/.

[7] https://web.archive.org/web/20150921193655/http://www.dhtraining.org/hilt2015/wp-content/uploads/sites/4/2014/12/DePostColonialApproachestoDHatHILT2015.pdf.

[8] https://medium.com/@chanda/decolonising-science-reading-list-339fb773d51f.

4. WEEKLY ASSIGNMENTS

16 WEEKS AT A GLANCE

Week 1: Introduction: who have put forward postcolonial technoscience studies?

PART I: KNOWLEDGE, ARTEFACTS, PRACTICES, BEING CIRCULATED, ACCREDITED, AND UNSETTLED: Cross-geographical, transnational STS (*6+1 weeks*)

Week 2: **Immutable mobiles I**: concepts and revaluations of them in STS

Week 3: **Immutable mobiles II**: feminist, geographical, and postcolonial reflections

Week 4: Geographical sensibilities in STS

Week 5: **"The same while being profoundly different" I**: ontological politics of natures and indigenous practices and knowledge

Week 6: **"The same while being profoundly different" II**: natureculture, multi-naturalism, and cosmopolitics

Week 7: Trading zones and contact zones

Week 8: Reading week

PART II: POSTCOLONIZNG STS (*3 weeks*)

Week 9: Feminist, crip, and postcolonial science studies

Week 10: Postcolonial digital studies

Week 11: Asia as method, Provincializing STS, and Going South

PART III: POSTCOLONIAL TECHNOSCIENCE (*5 weeks*)

Week 12: **Global systems, local grounds, postcolonial structures I**: Global industrialism, globalized health science, environmental justice, and sustainability

Week 13: **Global systems, local grounds, postcolonial structures II**: Climate change, and the Anthropocene

Week 14: Race, Aboriginal and Indigenous STS, and "Melbourne-Deakin school"

Week 15: **Settler colonialism and slavery**: past and present

Week 16: Global development, Infrastructure, and Sociotechnical imaginaries of other pluriversal worlds

READINGS BY WEEK

Week 1: Introduction: who have put forward postcolonial technoscience studies?

McNeil, Maureen. 2005. "Introduction: postcolonial technoscience." *Science as Culture* 14(2): 105-112. https://doi.org/10.1080/09505430500110770.

Anderson, Warwick. 2009. "From subjugated knowledge to conjugated subjects: science and globalisation, or postcolonial studies of science?." *Postcolonial Studies* 12(4): 389-400.

Harding, Sandra. 2013. "Beyond postcolonial theory: Two undertheorized perspectives on science and technology." *Women, science, and technology: A Reader in feminist science studies*, third edition, edited by Wyer, Mary, Mary Barbercheck, Donna Cookmeyer, Hatice Ozturk, and Marta Wayne, 431-54. Routledge.

Schnabel, Landon. 2014. "The question of subjectivity in three emerging feminist science studies frameworks: Feminist postcolonial science studies, new feminist materialisms, and queer ecologies." In *Women's Studies International Forum,* vol. 44, pp. 10-16. https://doi.org/10.1016/j.wsif.2014.02.011.

Seth, Suman. 2017. "Colonial history and postcolonial science studies." *Radical History Review*, 127: 63-85. https://doi.org/10.1215/01636545-3690882.

Lyons, Kristina, Juno Salazar Parreñas, Noah Tamarkin, Banu Subramaniam, Lesley Green, and Tania Pérez-Bustos. 2017. "Engagements with Decolonization and Decoloniality in and at the Interfaces of STS." *Catalyst: Feminism, Theory, Technoscience* 3(1). 1-10.

(Supplements)

Chambers, David Wade and Richard Gillespie. 2000. "Locality in the History of Science: Colonial Science, Technoscience, and Indigenous Knowledge." *Osiris* 15(1): 221-240. https://doi.org/10.1086/649328.

Harding, Sandra. 2009. "Postcolonial and feminist philosophies of science and technology: Convergences and dissonances." *Postcolonial Studies* 12, no. 4: 401-421. https://doi.org/10.1080/13688790903350658.

Rottenburg, Richard. 2009. "Social and public experiments and new figurations of science and politics in postcolonial Africa." *Postcolonial Studies* 12, no. 4: 423-440. https://doi.org/10.1080/13688790903350666.

Rajão, Raoni, Ricardo B. Duque, and Rahul De'. 2014. "Introduction: Voices from within and Outside the South—Defying STS Epistemologies, Boundaries, and Theories" *Science, Technology, & Human Values* 39, no. 6: 767-772. https://doi.org/10.1177/0162243914542161.

Schnabel, Landon, Lindsey Breitwieser, and Amelia Hawbaker. 2016. "Subjectivity in Feminist Science and Technology Studies: Implications and Applications for Sociological Research." *Sociology Compass* 10, no. 4: 318-329. https://doi.org/10.1111/soc4.12364.

Mascarenhas, Michael. 2018. "White Space and Dark Matter: Prying Open the Black Box of STS." *Science, Technology, & Human Values* 43(2): 151-170. https://doi.org/10.1177/0162243918754672

Lowe, Lisa, and Kris Manjapra. 2019. "Comparative Global Humanities After Man: Alternatives to the Coloniality of Knowledge." *Theory, Culture & Society,* 36(5), 23–48. https://doi.org/10.1177/0263276419854795.

PART I: knowledge, artefacts, and practices, being circulated, accredited, and unsettled: Cross-geographical, transnational STS (6+1 weeks)

Week 2: Immutable mobiles I: concepts and revaluations of them in STS

Latour, Bruno. 1990. "Drawing things together." In *Representation in Scientific Practice,* ed. Michael Lynch and Steve Woolgar, 19–68. Cambridge: MIT Press. [Originally published as "Visualization and cognition: Thinking with eyes and hands," *Knowledge and Society: Studies in the Sociology of Culture Past and Present.* 6. Edited by Henrika Kuklick. 1986: 1–40.]

Kaiser, David. 2005. "Doodling toward a New "Theory"" in *Drawing Theories Apart: The Dispersion of Feynman Diagrams in Postwar Physics*. Chicago. London: The University of Chicago Press. 280-317.

Law, John, and Kevin Hetherington. 2000. "Materialities, globalities, spatialities." *Knowledge, space, economy,* edited by John Bryson, Peter Daniels, Nick Henry and Jane Pollard, 34-49. London: Taylor & Francis.

Stöckelová, Tereza. 2012. "Immutable mobiles derailed: STS, geopolitics, and research assessment." *Science, Technology, & Human Values* 37(2): 286-311. https://doi.org/10.1177/0162243911415872.

(Supplements)

Latour, Bruno. 1998. "Circulating reference: Sampling the soil in the Amazon forest." In B. Latour (Ed.), *Pandora's hope: Essays on the reality of science studies.* Cambridge, MA: Harvard University Press. 24–79.

Golinski, Jan. [1998/]2005. "The place of production." *Making Natural Knowledge: Constructivism and the History of Science,* with a new preface. University of Chicago Press. 79-101.

Week 3: Immutable mobiles II: feminist, geographical, and postcolonial reflections

Star, Susan Leigh. 1990. "Power, technology and the phenomenology of conventions: on being allergic to onions." *The Sociological Review* 38(1_suppl): 26-56. https://doi.org/10.1111/j.1467-954X.1990.tb03347.x.

Mol, Annemarie & John Law. 1994. "Regions, Networks and Fluids: Anaemia and Social Topology," *Social Studies of Science* 24(4): 641–71. https://doi.org/10.1177/030631279402400402.

De Laet, Marianne, and Annemarie Mol. 2000. "The Zimbabwe bush pump: Mechanics of a fluid technology." *Social studies of science* 30(2): 225-263. https://doi.org/10.1177/030631200030002002.

Edwards, Paul N., Lisa Gitelman, Gabrielle Hecht, Adrian Johns, Brian Larkin, and Neil Safier. 2011. "AHR conversation: Historical perspectives on the circulation of information." *The American Historical Review* 116 (5): 1393-1435.

Week 4: Geographical sensibilities in STS

Hess, David J. 1995. "The origins of western science: technototems in the scientific revolution." In *Science and technology in a multicultural world: The cultural politics of facts and artifacts.* Columbia University Press. 54-86.

Hinchliffe, Steve. 1996. "Technology, power, and space—the means and ends of geographies of technology." *Environment and Planning D: Society and Space* 14(6): 659-682. https://doi.org/10.1068/d140659.

Livingstone, David N. 2003. "Circulation: Movements of Science." *Putting science in its place: geographies of scientific knowledge.* University of Chicago Press. 135-178.

Frickel, Scott, and Abby Kinchy. 2015. "Geographies of ignorance in science and technology studies." In *Routledge international handbook of ignorance studies,* edited by Matthias Gross (editor), Linsey McGoey, 174-182. Routledge.

Week 5: "the same while being profoundly different" I: Ontological politics of natures and indigenous practices and knowledge

Verran, Helen. 1999. "Staying true to the laughter in Nigerian classrooms." *Actor Network and After.* Oxford, UK: Blackwell and The Sociological Review. 136–155.

Verran, Helen. 2002. "A postcolonial moment in science studies: alternative firing regimes of environmental scientists and aboriginal landowners." *Social Studies of Science* 32(5-6): 729-762. https://doi.org/10.1177/030631270203200506.

Joks, Solveig, and John Law. 2017. "Sámi salmon, state salmon: TEK [traditional ecological knowledge], technoscience and care." *The Sociological Review* 65(2_suppl): 150-171. https://doi.org/10.1177/0081176917710428.

Marques, Ivan da Costa. 2014. "Ontological politics and Latin American local knowledges." In *Beyond imported magic: essays on science, technology, and society in Latin America*. edited by Eden Medina, Ivan da Costa Marques, and Christina Holmes. MIT Press. 85-110.

Todd, Zoe. 2016. "An indigenous feminist's take on the ontological turn: 'Ontology' is just another word for colonialism." *Journal of historical sociology* 29(1): 4-22. https://doi.org/10.1111/johs.12124.

(Supplements)

Santos, Boaventura de Sousa. 2015. "Introduction: Creating a Distance in Relation to Western-centric Political Imagination and Critical Theory," And "Ecologies of Knowledge." in *Epistemologies of the South: Justice against epistemicide,* 19-46; 188-210. Routledge.

Week 6: "the same while being profoundly different" II: Natureculture, multi-naturalism, and cosmopolitics

Law, John. 2004. "Enacting Naturecultures: A View from STS." Version of 24th February 2004. Available at http://www.heterogeneities.net/publications/Law2004EnactingNaturecultures.pdf.

Blok, Anders. 2011. "War of the whales: post-sovereign science and agonistic cosmopolitics in Japanese-global whaling assemblages." *Science, Technology, & Human Values* 36(1): 55-81. https://doi.org/10.1177/0162243910366133.

Latour, Bruno. 2004. "Whose cosmos, which cosmopolitics? Comments on the peace terms of Ulrich Beck." *Common Knowledge* 10(3): 450-462. https://doi.org/10.1215/0961754X-10-3-450

Watson, Matthew C. 2014. "Derrida, Stengers, Latour, and subalternist cosmopolitics." *Theory, culture & society* 31(1): 75-98. https://doi.org/10.1177/0263276413495283.

(Supplements)

Stengers, Isabelle. 2005. "The cosmopolitical proposal." In *Making things public: Atmospheres of democracy*, ed. Bruno Latour and Peter Weibel, 994-1003. Karlsruhe: ZKM and Cambridge, MA: The MIT Press.

Watson, Matthew C. 2011. "Cosmopolitics and the subaltern: Problematizing Latour's idea of the commons." *Theory, Culture & Society* 28(3): 55-79.

Week 7: Trading zones and contact zones

Galison, Peter. 1997. "The trading zone: Coordinating action and belief in modern physics." In *Image and logic: A material culture of microphysics*. 781-844. University of Chicago Press.

Pratt, Mary Louise. [1992/]2007. *"*Introduction: Criticism in the contact zone" and "In the neocolony: Modernity, mobility, globality" in *Imperial Eyes: Travel Writing and Transculturation,* 2nd Edition, 1-12; 224-243. London and New York: Routledge.

Choose a topic among two and read the articles under that topic.

(Topic I: Trading zones afterwards)

Galison, Peter. 2000. "Einstein's clocks: The place of time." *Critical Inquiry* 26(2): 355-389. https://doi.org/10.1086/448970.

Frumer, Yulia. 2018. "Navigation and Global Time," and "Western Time and the Rhetoric of Enlightenment." in *Making Time: Astronomical Time Measurement in Tokugawa Japan*. 110-130, 181-198. University of Chicago Press.

(Topic II: contact zones afterwards)

Srinivasan, Ramesh, Katherine M. Becvar, Robin Boast, and Jim Enote. 2010. "Diverse knowledges and contact zones within the digital museum." *Science, technology, & human values* 35, no. 5: 735-768.

Kikuchi, Yoshiyuki. 2013. "Introduction," and "Constructing a Pedagogical Space for Pure Chemistry" in *Anglo-American Connections in Japanese Chemistry: The Lab as Contact Zone,* 1-10, 107-126. New York, NY: Palgrave Macmillan.

Week 8: Reading week

PART II: Postcolonizng STS (3 weeks)

Week 9: Feminist, crip, and postcolonial science studies

Harding, Sandra. 2008. "Women on Modernity's Horizons: Feminist Postcolonial Science and Technology Studies" and "Moving on: A Methodological Provocation." in *Sciences from below: Feminisms, postcolonialities, and modernities.* Duke University Press. 155-172; 214-233.

Kafer, Alison. 2017. "Bodies of nature: The environmental politics of disability." in *Disability Studies and the Environmental Humanities. Toward an Eco-Crip*

Theory, Edited by Sarah Jaquette Ray and Jay Sibara, 201-241. Nebraska: Board of Regents of the University of Nebraska.

Subramaniam, Banu, Laura Foster, Sandra Harding, Deboleena Roy, and Kim TallBear. 2017. "Feminism, Postcolonialism, Technoscience." *The Handbook of Science and Technology Studies.* Fourth Edition, edited by Ulrike Felt, Rayvon Fouche, Clark A. Miller, and Laurel Smith-Doerr, 407-434. MIT Press.

Choose a topic among the below four and read the articles under that topic.

(Topic I: Feminism, new materialism, and postcolonialism)

Willey, Angela. 2016. "A world of materialisms: Postcolonial feminist science studies and the new natural." *Science, Technology, & Human Values* 41(6): 991-1014.

Roy, Deboleena, and Banu Subramaniam. 2016. "Matter in the shadows: Feminist new materialism and the practices of colonialism." in *Mattering: Feminism, science and materialism.* Editied by Pitts-Taylor, Victoria, 23-42. NYU Press.

Arvin, Maile, Eve Tuck, and Angie Morrill. 2013. "Decolonizing feminism: Challenging connections between settler colonialism and heteropatriarchy." *Feminist Formations,* 25(1): 8-34.

(Topic II: Disability studies from postcolonial perspectives)

Connell, Raewyn. 2011. "Southern bodies and disability: Re-thinking concepts." *Third World Quarterly* 32(8): 1369-1381.

Johnson, Valerie Ann. 2017. "Bringing together feminist disability studies and environmental justice." in *Disability Studies and the Environmental Humanities. Toward an Eco-Crip Theory*, Edited by Sarah Jaquette Ray and Jay Sibara, 73-93. Nebraska: Board of Regents of the University of Nebraska.

(Topic III: Post-humanist postcolonialism)

Ahuja, Neel. "Postcolonial critique in a multispecies world." *PMLA: Publications of the Modern Language Association of America* 124, no. 2 (2009): 556-563. https://doi.org/10.1632/pmla.2009.124.2.556.

DeLoughrey, Elizabeth, Jill Didur, and Anthony Carrigan. 2015. "Introduction: A postcolonial environmental humanities." In *Global Ecologies and the Environmental Humanities.* Edited By Elizabeth DeLoughrey, Jill Didur, Anthony Carrigan, 19-50. Routledge.

Deckha, Maneesha. 2012. "Toward a postcolonial, posthumanist feminist theory: Centralizing race and culture in feminist work on nonhuman

animals." *Hypatia: A Journal of Feminist Philosophy*. 27(3): 527-545. https://doi.org/10.1111/j.1527-2001.2012.01290.x

(Topic IV: Reproduction technology and postcolonialism)

Gupta, Jyotsna Agnihotri. 2006. "Towards transnational feminisms: Some reflections and concerns in relation to the globalization of reproductive technologies." *European Journal of Women's Studies* 13(1): 23-38. https://doi.org/10.1177/1350506806060004.

Vertommen, Sigrid. 2015. "Assisted Reproductive Technologies at the Frontier: Towards a Decolonial Approach." *Science as Culture.* 24(4): 532-537. https://doi.org/10.1080/09505431.2015.1102218.

Week 10: Postcolonial digital studies

Philip, Kavita, Lilly Irani, and Paul Dourish. 2012. "Postcolonial computing: A tactical survey." *Science, Technology, & Human Values* 37(1): 3-29. https://doi.org/10.1177/0162243910389594.

Ali, Syed Mustafa. 2016. "A brief introduction to decolonial computing." *XRDS: Crossroads, The ACM Magazine for Students* 22(4): 16-21.

Choose a topic among the below three and read the articles under that topic.

(Topic I: Engineering, automation and coloniality)

Dourish, Paul, and Scott D. Mainwaring. 2012. "Ubicomp's colonial impulse." In *Proceedings of the 2012 ACM Conference on Ubiquitous Computing,* ACM. 133-142. https://doi.org/10.1145/2370216.2370238.

Bailey, Moya Z. 2011. "All the Digital Humanists Are White, All the Nerds Are Men, but Some of Us Are Brave." *Journal of Digital Humanities* 1(1). http://journalofdigitalhumanities.org/1-1/all-the-digital-humanists-are-white-all-the-nerds-are-men-but-some-of-us-are-brave-by-moya-z-bailey/.

McPherson, Tara. 2012. "Why are the digital humanities so white? Or thinking the histories of race and computation." *Debates in the digital humanities*, edited by Matthew K. Gold, 139-160. University of Minnesota Press. https://dhdebates.gc.cuny.edu/read/untitled-88c11800-9446-469b-a3be-3fdb36bfbd1e/section/20df8acd-9ab9-4f35-8a5d-e91aa5f4a0ea.

Benjamin, Ruha. 2019. "Engineered Inequity: Are Robots Racist?" in *Race After Technology: Abolitionist Tools for the New Jim Code.* Polity Press. 49-76.

(Topic II: Agencies and global digital economy's loop)

Burrell, Jenna. 2011. "User agency in the middle range: Rumors and the reinvention of the Internet in Accra, Ghana." *Science, Technology, & Human Values* 36(2): 139-159. https://doi.org/10.1177/0162243910366148.

Irani, Lilly. 2015. "Hackathons and the making of entrepreneurial citizenship." *Science, Technology, & Human Values* 40(5): 799-824. https://doi.org/10.1177/0162243915578486.

Amrute, Sareeta. 2016. Chapter 3 "Proprietary Freedoms in an IT Office" and Chapter 4 "The Stroke of Midnight and the Spirit of Entrepreneurship: A History of the Computer in India." in *Encoding race, encoding class: Indian IT workers in Berlin,* 86-107, 111-136. Duke University Press.

(Topic III: Data justice)

Heeks, Richard, and Jaco Renken. 2018. "Data justice for development: What would it mean?." *Information Development* 34(1): 90-102. https://doi.org/10.1177/0266666916678282.

Arora, Payal. 2016. "Bottom of the data pyramid: Big data and the global south." *International Journal of Communication* 10: 1681-1699. https://ijoc.org/index.php/ijoc/article/view/4297.

Couldry, Nick, and Ulises A. Mejias. 2019. "Data colonialism: Rethinking big data's relation to the contemporary subject." *Television & New Media* 20(4) 336-349.

Week 11: Asia as method, Provincializing STS, and Going South

Anderson, Warwick. "Asia as method in science and technology studies." *East Asian Science, Technology and Society: An International Journal* 6, no. 4 (2012): 445-451. https://doi.org/10.1215/18752160-1572849.

Prasad, Amit. 2016. "Discursive contextures of science: Euro/West-Centrism and science and technology studies." *Engaging Science, Technology, and Society* 2: 193-207. https://doi.org/10.17351/ests2016.71.

Law, John, and Wen-yuan Lin. 2017. "Provincializing STS: Postcoloniality, symmetry, and method." *East Asian Science, Technology and Society* 11(2): 211-227. https://doi.org/10.1215/18752160-3823859.

Dumoulin Kervran, David, Mina Kleiche-Dray, and Mathieu Quet. 2018. "Going South. How STS could think science in and with the South?" *Tapuya: Latin American Science, Technology and Society* 1(1): 280-305. https://doi.org/10.1080/25729861.2018.1550186.

Rodriguez Medina, Leandro. 2019. "Welcome to South-South dialogues: an introduction to a collaborative project between *East Asian Science,*

Technology and Society, and *Tapuya: Latin American Science, Technology and Society*." *Tapuya: Latin American Science, Technology and Society,* 2(1): 15-19. https://doi.org/10.1080/25729861.2019.1594659.

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Lin, Wen-yuan, and John Law. 2014. "A correlative STS: Lessons from a Chinese medical practice." *Social Studies of Science* 44(6): 801-824. https://doi.org/10.1177/0306312714531325.

Fischer, Michael M. J. 2016. "Anthropological STS in Asia." *Annual Review of Anthropology* 45: 181-198. https://doi.org/10.1146/annurev-anthro-102215-100258.

PART III: Postcolonial technoscience (*5 weeks*)

Week 12: Global systems, local grounds, postcolonial structures I: Global industrialism, Globalized health science, environmental justice, and sustainability

[NOTE] Your Term Paper Proposal should be electronically turned in by 23:59 at the day of Week 12 class. The mails are encouraged to be titled "[Postcolonial STS] Term paper proposal."

Fortun, Kim. 2014. "From Latour to late industrialism." *HAU: Journal of Ethnographic Theory*, 4(1): 309-329. https://doi.org/10.14318/hau4.1.017.

Hecht, Gabrielle. 2009. "Africa and the nuclear world: labor, occupational health, and the transnational production of uranium." *Comparative Studies in Society and History* 51(4): 896-926. https://doi.org/10.1017/S001041750999017X.

Pritchard, Sara B. 2012. "From hydroimperialism to hydrocapitalism: 'French' hydraulics in France, North Africa, and beyond." *Social Studies of Science* 42(4): 591-615. https://doi.org/10.1177/0306312712443018.

Choose a topic among the three below and read the articles within the topic.

(Topic I: global design, global knowledge)

Suchman, Lucy. 2011. "Anthropological relocations and the limits of design." *Annual Review of Anthropology* 40. 1-18. http://dx.doi.org/10.1146/annurev.anthro.041608.105640.

Tsing, Anna Lowenhaupt. 2011. "A History of Weediness." in *Friction: An ethnography of global connection*, 171-203. Princeton University Press.

Mehos, Donna, and Suzanne Moon. 2011. "The uses of portability: Circulating experts in the technopolitics of Cold War and decolonization." in *Entangled Geographies: Empire and technopolitics in the global cold war*. Edited by Gabrielle Hecht, 43-74. MIT Press.

(Topic II: colonial and non-Western medicine)

Clarke, Adele E. 2008. "Introduction: Gender and reproductive technologies in East Asia." *East Asian Science, Technology and Society* 2(3): 303-326. https://doi.org/10.1215/s12280-008-9063-4.

Pollock, Anne.2014. "Places of pharmaceutical knowledge-making: Global health, postcolonial science, and hope in South African drug discovery." *Social Studies of Science* 44(6): 848-873. https://doi.org/10.1177/0306312714543285.

Anderson, Warwick. 2014. "Making global health history: the postcolonial worldliness of biomedicine." *Social History of Medicine* 27(2): 372-384. https://doi.org/10.1093/shm/hkt126.

(Topic III: Global health)

Crane, Johanna. 2010. "Adverse events and placebo effects: African scientists, HIV, and ethics in the 'global health sciences'." *Social Studies of Science* 40(6): 843-870. https://doi.org/10.1177/0306312710371145.

Murphy, Michelle. 2015. "Unsettling care: Troubling transnational itineraries of care in feminist health practices." *Social Studies of Science* 45 (5): 717-737. https://doi.org/10.1177/0306312715589136.

Week 13: Global systems, local grounds, postcolonial structures II: Technology Transfer, Climate change, and the Anthropocene

Medina, Eden. 2011. "Cybernetics and Socialism" *Cybernetic revolutionaries: Technology and politics in Allende's Chile,* 15-42. MIT Press.

Wickramasinghe, Nira. 2014. "Introduction: Exploring Sri Lanka's Modern: Multiple Loops of Belonging," and "Following the Singer Sewing Machine: Fashioning a Market in a British Crown Colony" in *Metallic Modern: Everyday Machines in Colonial Sri Lanka.* 1-15; 16-40. Oxford, New York: Berghahn Books.

Edwards, Paul N. 2010. ""Making Global Data" and "Making Data Global" *A Vast Machine: Computer models, climate data, and the politics of global warming*, 187-228; 251-286. MIT Press.

Chakrabarty, Dipesh. 2012. "Postcolonial studies and the challenge of climate change." *New Literary History* 43(1): 1-18.

(Topic I: Technology Transfer)

Ames, Morgan G. 2019. Chapter 3 "Translating Charisma in Paraguay." and Chapter 4 "Little Toys, Media Machines, and the Limits of Charisma." in *The Charisma Machine:The Life, Death, and Legacy of One Laptop per Child*, 73-108, 109-136. MIT Press. [For an early version, Ames, Morgan G. 2014. "Translating Magic: The Charisma of One Laptop per Child's XO Laptop in Paraguay." In *Beyond imported magic: Essays on science, technology, and society in Latin America,* edited by Eden Medina, Ivan da Costa Marques, and Christina Holmes, 207-224. MIT Press.]

Tinn, Honghong. 2010. "Cold War Politics: Taiwanese Computing in the 1950s and 1960s." *IEEE Annals of the History of Computing* 32(1): 92-95. https://doi.org/10.1109/MAHC.2010.15.

Smethurst, Paul, 2015. "Crossings: The Diffusion of Bicycle Culture across Asia and Africa." In *The Bicycle—Towards a Global History,* 105-140. Palgrave Macmillan, London.

(Topic II: Climate change and the Anthropocene)

Mahony, Martin, and Mike Hulme. 2018. "Epistemic geographies of climate change: Science, space and politics." *Progress in Human Geography* 42(3): 395-424. https://doi.org/10.1177/0309132516681485.

O'Lear, Shannon. 2016. "Climate science and slow violence: A view from political geography and STS on mobilizing technoscientific ontologies of climate change." *Political Geography* 52: 4-13. https://doi.org/10.1016/j.polgeo.2015.01.004.

Zilberstein, Anya. 2016. "Jamaican In and Out of Nova Scotia." In *A temperate empire: Making climate change in early America,* 118-146. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780190206598.003.0005.

Week 14: Race, Aboriginal and Indigenous STS, and "Melbourne-Deakin school"

Watson-Verran, Helen, & Turnbull, David. 1995. "Science and other indigenous knowledge systems." *Handbook of Science and Technology Studies,* second edition, edited by Sheila Jasanoff, Gerald E. Markle, James C. Peterson & Trevor Pinch, 115-139. Sage.

M'charek, Amade, Katharina Schramm, and David Skinner. 2014. "Topologies of race: Doing territory, population and identity in Europe." *Science, Technology, & Human Values* 39(4): 468-487. https://doi.org/10.1177/0162243913509493.

TallBear, Kim. 2013. "Introduction: An Indigenous, Feminist Approach to DNA Politics." In *Native American DNA: Tribal belonging and the false promise of genetic science*, 1-30. U of Minnesota Press.

Kowal, Emma, Joanna Radin, and Jenny Reardon. 2013. "Indigenous body parts, mutating temporalities, and the half-lives of postcolonial technoscience." *Social Studies of Science* 43, no. 4: 465-483. https://doi.org/10.1177/0306312713490843.

Benjamin, Ruha. 2016. "Catching Our Breath: Critical Race STS and the Carceral Imagination." *Engaging Science, Technology, and Society* 2: 145-156. https://doi.org/10.17351/ests2016.70.

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Tilley, Helen. 2010. "Global histories, vernacular science, and African genealogies; or, is the history of science ready for the world?." *Isis* 101(1): 110-119. https://doi.org/10.1086/652692.

Turnbull, David. 1997. "Reframing science and other local knowledge traditions." *Futures* 29(6): 551-562. https://doi.org/10.1016/S0016-3287(97)00030-X.

Chun, Wendy Hui Kyong. 2009. "Introduction: Race and/as technology; or, how to do things to race." *Camera Obscura: Feminism, Culture, and Media Studies.* 24(1): Special Issue: Race and/as Technology. 7-35. https://doi.org/10.1215/02705346-2008-013.

Week 15: Settler colonialism and slavery: past and present

Aikenhead, Glen S. 1997. "Toward a First Nations cross-cultural science and technology curriculum." *Science Education* 81(2): 217-238. https://doi.org/10.1002/(SICI)1098-237X(199704)81:2<217::AID-SCE6>3.0.CO;2-I.

Eglash, Ron. 2007. "Broken metaphor: The master-slave analogy in technical literature." *Technology and Culture* 48(2): 360-369. https://doi.org/10.1353/tech.2007.0066.

Seth, Suman. 2014. "Materialism, Slavery, and The History of Jamaica." *Isis* 105(4): 764-772. https://doi.org/10.1086/679423.

Radcliffe, Sarah A. 2017. "Geography and indigeneity I: Indigeneity, coloniality and knowledge." *Progress in Human Geography* 41(2): 220-229.

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Coulthard, Glen Sean. 2014. "Introduction. Subjects of Empire." *Red skin, white masks: Rejecting the colonial politics of recognition*. 1-23. Minneapolis: Univ Of Minnesota Press.

Rosenthal, Caitlin. 2018. "Slavery's Scientific Management" in *Accounting for slavery: Masters and management.* 85-120. Harvard University Press.

Week 16: Global development, Infrastructure, and Sociotechnical imaginaries of other pluriversal worlds

Larkin, Brian. 2013. "The politics and poetics of infrastructure." *Annual review of anthropology* 42: 327-343. https://doi.org/10.1146/annurev-anthro-092412-155522.

Appel, Hannah, Nikhil Anand, and Akhil Gupta. 2018. "Introduction: Temporality, politics and the promise of infrastructure." *The Promise of Infrastructure*. Edited by Nikhil Anand, Akhil Gupta, Hannah Appel. 1-38. Durham, NC: Duke University Press.

Moon, Suzanne. 2015. "Building from the outside in: sociotechnical imaginaries and civil society in new order Indonesia." *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power,* edited by Sheila Jasanoff and Sang-Hyun Kim, 174-198. Chicago University Press.

Jensen, Casper Bruun, and Brit Ross Winthereik. 2013. "Development Loop: Technological politics for transparency." *Monitoring movements in development aid: Recursive partnerships and infrastructures*. 71-91. MIT Press.

Escobar, Arturo. 2018. "Autonomous Design and the Politics of Relationality and the Communal." in *Designs for the pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. 165-201. Durham, NC: Duke University Press.

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Messeri, Lisa. 2016. "Mapping Mars in Silicon Valley" in *Placing outer space: An earthly ethnography of other worlds*, 71-109. Duke University Press.

von Schnitzler, Antina. 2018. "Infrastructure, Apartheid Technopolitics, and Temporalities of "transition"" in *The Promise of Infrastructure*. Edited by Nikhil Anand, Akhil Gupta, Hannah Appel. 133-54. Duke University Press. https://doi.org/10.1215/9781478002031-006

[NOTE 2] Your final term paper should be electronically turned in by 23:59 the four days before the end of semester. The mails are encouraged to be titled "[Postcolonial STS] Term paper."