**COMS 330 – Critical Issues in Technology and Development**
Department of Art History & Communication Studies
McGill University[1]
Tuesdays and Thursdays, 4:05 pm-5:25 pm
ARTS W-120
Winter 2024

**General Information**

**Instructor:** Roda Siad (she/her)
**Email:** roda.siad@mcgill.ca
**Office Hours:** Tuesdays 11:00am-12:30pm / Thursdays 2:00pm-3:30pm or by appointment
**Office Location:** TBD
**Teaching Assistant:**

**Course Overview and Purpose:**
Technology plays an increasingly prominent role in national and international development strategies. Various public and private actors have leveraged emerging technologies for automating government service delivery purportedly to improve welfare and policing systems, supporting sustainable development goals and migration management. This course examines the role of technological innovation in development-related issues and considers how the design and policy dimensions of emerging technologies and other data-driven tools are reconfiguring development practices. It will situate technological change from early Information Communication Technologies (ICTs) to newer developments in the areas of biometrics, artificial intelligence, predictive analytics, and distributed ledger technology (i.e., blockchain technology) within their ideological origins and interrogate the values and assumptions behind the use of terms such as *innovation*, *expertise,* and *development*. Some of the topics we will explore include: the digital divide and narratives around modernity and progress, technology's role in the humanitarian-development nexus, racial discrimination, economic inequality, gender inequality, algorithmic bias, dataveillance, environmental justice, ghost work and issues related to data sovereignty and justice. The course takes an interdisciplinary approach to engage students in a broad range of contemporary debates emerging from scholarly, industry and public spaces about the implications of digital technologies and data practices on marginalized communities in Canada and internationally.

**Learning Outcomes:**
- Learn key concepts emerging from Science and Technology Studies (STS) and apply them to case studies from national and international development contexts
- Critically challenge normative discourses about technological change and rethink terms such as innovation, expertise and development

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[1] McGill University is situated on unceded Indigenous lands in Tiohtiá:ke (Montreal), a place that has long served as a site of meeting and exchange for Indigenous peoples. The Kanien'kehà:ka (Mohawk) of the Haudenosaunee Confederacy are recognized as the traditional custodians of these lands and waters.

- Develop a critical perspective on the historical, regulatory and design dimensions of digital technologies, their risks and implications
- Strengthen the capacity to analyze and synthesize scholarly and industry literature on technologies and related topics from a range of interdisciplinary perspectives

**Course Pre-requisites:** One of the following: COMS 200, COMS 210, or COMS 230 or permission of the instructor.

**Method of Delivery and Course Outline:** All lecturers will be held in-person, subject to public health protocols. Lecture slides will be posted on MyCourses following each class. Additionally, the schedule of lectures in the course outline is subject to change and any updates will be posted to MyCourses.

**Course Requirements:**
Five Weekly Responses: **25 % (300-word responses x 5% each)**
Midterm Paper**: 25 %**
Final Term Paper: **35 %**
Participation: **15 %**

**Course Schedule:**

| Week | Dates | Topic | Readings | Assignment Due Dates |
|---|---|---|---|---|
| **Week 1:** Introduction | 04/01/24 | Course Introduction | No readings | |
| **Part I: Foundations** | | | | |
| **Week 2:** Framing Technology | 09/01/24 | The Politics of Technology | Winner (1980) Slack & Wise (2014) | |
| | 11/01/24 | Co-production | Jasanoff (2005) | |
| **Week 3** Framing Development | 16/01/24 | What is Development? | Escobar (1995) Ferguson (2006) | |
| | 18/01/24 | Humanitarianism | Barnett (2011) | |
| **Week 4** Colonialism and Diffusion | 23/01/24 | Colonialism and Knowledge Production | Shome (2019) Tuhiwai-Smith (2021) | |
| | 25/01/24 | Technological Diffusion | Kim, E.-S (2018) Fejerskov (2017) | |

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| **Part II: Inequality** | | | | |
| **Week 5**<br>Tech and Poverty | 30/01/24 | Biometrics and Welfare | Eubanks (2014; 2018) | |
| | 01/02/24 | Biometrics and Welfare | Magnet (2011) | |
| **Week 6**<br>Algorithmic Bias and Racism | 06/02/24 | Algorithms and Racism | Noble (2018) | |
| | 08/02/24 | Technical Systems and "Glitches" | Benjamin (2019) | |
| **Week 7**<br>Gender & Sexuality | 13/02/24 | AI, Gender and Sexuality | Buolamwini (2023)<br>Goodman (2018) | |
| | 15/02/24 | AI, Gender and Sexuality | Crawford (2021)<br>Murphy (2017) | |
| **Week 8**<br>Environmental Racism | 20/02/24 | Dispossession<br>*Guest speaker TBA | Nixon (2011)<br>Rivera (2019) | |
| | 22/02/24 | Urban Mining and E-Waste | Gabrys (2011)<br>Grant & Oteng-Ababio (2016) | |
| **Week 9**<br>Technology and Performativity | 27/02/24 | Rethinking the Digital Divide | Mazzarella (2010)<br>Ames (2019) | |
| | 29/02/24 | ICTs and Empowerment | Parks et al. (2022)<br>Martin-Shields & Munir-Asen (2022) | |
| **Week 10** | 05/03/24-07/03/24 | **Winter Term Study Break (No Classes)** | No readings | |
| **Part III: The Humanitarian - Development Nexus** | | | | |
| **Week 11**<br><br>The Double-edged Sword of Cash | 12/03/24 | The Politics of Cash<br>*Guest Speaker: Innocent Tshilombo, Kakuma Ventures | Tshilombo (2021)<br>Tazzioli (2019) | |

| | 14/03/24 | Vulnerability Indexes | Oliver-Smith (2004) O'Connor et al (2017) | |
|---|---|---|---|---|
| **Week 12** Expertise and Innovation | 19/03/24 | The Rise of the Experts | Mitchell (2002) Irani (2019) | Mid-term Paper Due **March 1** |
| | 21/03/24 | Experimentation, Risk and Opportunities *Guest Speaker: Salem Al-Qudwa, Gazan Architect | Al-Qudwa (2021) Ditmars (2021) Obrecht (2016) | |
| **Week 13** Humanitarianism and Datafication | 26/03/24 | Digital Humanitarianism | Madianou (2019) Ajana (2021) | |
| | 28/03/24 | Review Session for Final | No readings | |
| **Part IV: Data Justice Perspectives** | | | | |
| **Week 14** Tech Labour in the Global South | 02/04/24 | Ghost Work | Gray & Suri (2019) Perrigo (2023) | |
| | 04/04/24 | Call Centers | Padios (2018) | |
| **Week 15** Data Rights and Resistance | 09/04/24 | Data Justice | Snipp (2016) Taylor (2017) Benjamin (2019) | |
| | 11/04/24 | No class | | |

**Final Research Paper due date - April 18**

**Readings Schedule:**

# Part I: Foundations

## Week 1 – Introduction

January 4: No required readings

## Week 2 (January 9 and 11) – Framing Technology

**January 9:   The Politics of Technology**

Winner, L. (1980). Do artifacts have politics? *Daedalus*, *109*(1), 121–135.

Slack, J.D. & Wise, J.M. (2014). Determinism. In *Culture and technology: A primer*. 1-11.

**In Class:**  Benjamin, R. (2023, September). Is technology our savior—or our slayer? [Video]. Ted Talk. https://www.ted.com/talks/ruha_benjamin_is_technology_our_savior_or_our_slayer

**January 11: Co-production**

Jasanoff, S. (2005). The idiom of co-production In *States of knowledge: the co-production of science and the social order* (Ser. International library of sociology). Routledge. 1-12.

**Week 3 (January 16 and 18) – Framing Development**

**January 16: What is Development?**

Escobar, A. (1995). *Encountering development: The making and unmaking of the Third World*. Princeton, NJ: Princeton University Press. 21-54.

Ferguson, J. (2006). Africa and the world. In *Global shadows: Africa in the neoliberal world order*. Duke University Press.1-24

*Recommended:*

Fioramonti, L. (2013). *Gross domestic problem: The politics behind the world's most powerful number*. London: Zed Books. 1-16.

Add/Drop Deadline: January 16

**January 18: Humanitarianism**

Barnett, M. (2011). *Empire of humanity: A history of humanitarianism*. Cornell University Press. (Introduction and Chapter Five: The New International)

**Week 4 (January 23 and 25) Colonialism and Technological Diffusion**

**January 23: Colonialism and Knowledge Production**

Tuhiwai Smith, L. (2021). Colonizing knowledges. In *Decolonizing methodologies: Research and indigenous peoples*, 3rd ed. London; New York: Zed Books. 67-90

Shome, R. (2019). When postcolonial studies interrupts media studies. *Communication, Culture & Critique*, *12*(3), 305–322. https://doi.org/10.1093/ccc/tcz020

**January 25: Technological Diffusion**

Kim, E.-S. (2018). Sociotechnical imaginaries and the globalization of converging technology policy: technological developmentalism in South Korea. *Science As Culture*, *27*(2), 175–197. https://doi.org/10.1080/09505431.2017.1354844

Fejerskov, A. M. (2017). The new technopolitics of development and the global south as a laboratory of technological experimentation. *Science Technology and Human Values*, *42*(5), 947–968. https://doi.org/10.1177/0162243917709934

# Part II – Tech and Inequality

## Week 5 (January 30 and February 1) – Poverty

**January 30: Biometrics and Welfare**

Eubanks, V. (2018). Introduction: Red flags. In *Automating inequality: How high-tech tools profile, police, and punish the poor* (First ed.). New York, NY: St. Martin's Press. 1-14.

Eubanks, V. (2014, January 15). "Want to predict the future of surveillance? Ask poor communities." *The American Prospect* (January 15), Retrieved from http://www.prospect.org/article/want-predict-future-surveillance-ask-poor-communities.

**February 1: Biometrics and Welfare Cont.**

Magnet, S. (2011). "Criminalizing poverty: Adding biometrics to welfare," in *When biometrics fail: gender, race, and the technology of identity*. Duke University Press. 69-89

## Week 6 (February 6 and 8) – Algorithmic Bias and Racism

**February 6: Algorithms and Racism**

Noble, S. U. (2018). A society, searching. In *Algorithms of oppression*. New York: NYU Press. 15-46.

**February 8: Technical Systems and "Glitches"**

Benjamin, R. (2019). "Default discrimination: Is the glitch systemic? In *Race after technology*. Cambridge: Polity Press. 1-31.

**Week 7 (February 13 and 15) – Gender & Sexuality**

**February 13: AI, Gender and Sexuality**

Buolamwini, J. (2023). Gender Shades. In *Unmasking AI: My mission to protect what is human in a world of machines*. Random House.

Goodman, R.  (2018, October 12).  Why Amazon's automated hiring tool discriminated against women. ACLU. Retrieved from: https://www.aclu.org/news/womens-rights/why-amazons-automated-hiring-tool-discriminated-against

**February 15: AI, Gender and Sexuality**

Crawford, K. (2021). "Classification," in Atlas *of AI : power, politics, and the planetary costs of artificial intelligence*. Yale University Press.

Murphy, H. (2017). Why Stanford Researchers Tried to Create a 'Gaydar' Machine (Published 2017). The New York Times. Retrieved from: https://www.nytimes.com/2017/10/09/science/stanford-sexual-orientation-study.html

**Week 8 (February 20 and 22) – Environmental Racism**

**February 20: Dispossession**

Nixon, R. (2011). Introduction. *Slow violence and the environmentalism of the poor*. Harvard University Press. 1-44.

Rivera, I. (2019). Digital enclosure and the elimination of the Oceti Sakowin: The case of the Dakota Access Pipeline. *Society and Space Essays*. https://www.societyandspace.org/articles/digital-encosure-and-the-elimination-of-the-oceti-sakowin-the-case-of-dapl

**February 22: Urban Mining and E-Waste**

Gabrys, J. (2011). Shipping and receiving: Circuits of disposable and the "social death" of electronics. In *Digital Rubbish: A Natural History of Electronics*. 74-98.

Grant, R. J., & Oteng-Ababio, M. (2016). The Global transformation of materials and the emergence of informal urban mining in Accra, Ghana. *Africa Today*, *62*(4), 3–20. https://doi.org/10.2979/africatoday.62.4.01

**Week 9 (February 27 and 29) – Technology and Performativity**

**February 27: Rethinking the Digital Divide**

Mazzarella, W. (2010). Beautiful balloon: The digital divide and the charisma of new media in India. *American Ethnologist*, *37*(4), 783–804. http://www.jstor.org/stable/40890788

Ames, M. G. (2019). Performing development. In *The charisma machine: the life, death, and legacy of one laptop per child* (Ser. Infrastructures series). 165-83

**February 29: ICTs and Empowerment**

Parks, L., Srinivasan, R., & Aragon, D. C. (2022). Digital empowerment for whom? an analysis of 'network sovereignty' in low-income, rural communities in Mexico and Tanzania. *Information, Communication & Society*, *25*(14), 2140–2161. https://doi.org/10.1080/1369118X.2021.1928264

Martin-Shields, C., & Munir-Asen, K. (2022). Do information communication technologies (ICTs) support self-reliance among urban refugees? Evidence from Kuala Lumpur and Penang, Malaysia. *International Migration Review*, *0*(0). https://doi.org/10.1177/01979183221139277

**Week 10 (March 5 and March 7 - Study Break- No Classes)**

# Part III- The Humanitarian - Development Nexus

**Week 11 (March 12 and 14) – The Double-edged Sword of Cash - Guest Speaker, Innocent Tshilmbo Co-founder of Kakuma Ventures**

**March 12: The Politics of Cash-based Transfers**

Guest Speaker, Innocent Tshilmbo, Consultant and Co-founder of Kakuma Ventures

Tshilmbo, I. (2021, September 22). Being on the receiving end: Why vouchers lack dignity and are bad value. *CALP Network*. https://www.calpnetwork.org/blog/being-on-the-receiving-end-why-vouchers-lack-dignity-and-are-bad-value/

Recommended:

Tazzioli, M. (2019). Refugees' debit cards, subjectivities, and data circuits: financial-humanitarianism in the Greek migration laboratory. *International Political Sociology*, *13*(4), 392–408. https://doi.org/10.1093/ips/olz014

**March 14: Vulnerability Indexes**

Oliver-Smith (2004) "Theorizing vulnerability in a globalized world: A political ecological perspective," in G. Bankoff, D. Hilhorst and G. Frerks (eds.) *Mapping vulnerability: Disasters, development and people*, London: Routledge, pp. 10–24.

O'Connor, D., Boyle, P., Ilcan, S., & Oliver, M. (2017). Living with insecurity: food security, resilience, and the World Food Programme (WFP). *Global Social Policy*, *17*(1), 3–20. https://doi.org/10.1177/1468018116658776

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**Mid-term Paper due March 1**

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**Week 12 (March 19 and 21) -Expertise and Innovation**

**March 19: The Experts**

Mitchell, T. (2002). The object of development. In *Rule of experts: Egypt, techno-politics, modernity*. University of California Press.

Irani, L. (2019). Introduction: Innovators and their others. in *Chasing innovation: making entrepreneurial citizens in modern India* (Ser. Princeton studies in culture and technology). Princeton University Press.

*Recommended:*
Calvão, F., & Archer, M. (2021). Digital extraction: Blockchain traceability in mineral supply chains. *Political Geography*, *87*. https://doi.org/10.1016/j.polgeo.2021.102381

**March 21: Experimentation, Risk and Opportunities - Guest Speaker, Salem Al-Qudwa, Gazan Architect**

Al-Qudwa, S. A. (2021). Architecture of the everyday. In M. Sorkin & D. Sharp (Eds.), *Open Gaza: Architectures of Hope* (pp. 26–41). The American University in Cairo Press. https://doi.org/10.2307/j.ctv2ks71tx.6

Ditmars, H. (2021, May 30). As Palestinians rebuild following the latest war between Israel and Hamas, housing will take center stage. *Architectural Digest.* https://www.architecturaldigest.com/story/gaza-west-bank-housing

Recommended:

Obrecht, A. (2016, April). Separating the "good" failure from the 'bad': Three success criteria for innovation. Humanitarian Exchange, 66. Retrieved from odihpn.org/wp-content/uploads/2016/04/HE-66-Web-Final.pdf  (one-page report)

**Week 13 (March 26 and 28) - Humanitarianism and Datafication**

**March 26: <u>Digital Humanitarianism</u>**

Madinanou, M. (2019). The biometric assemblage: Surveillance, experimentation, profit, and the measuring of refugee bodies. *Television & New Media* 20(6). 581-599.

Ajana, B. (2021). Biometric datafication in governmental and personal sphere. In Lushetich, N. (Ed.). (2021). *Big data a new medium?* (Ser. Routledge studies in science, technology and society, 43). Routledge.

**March 28:  Review Session for Final Paper**

No readings

# Part IV: Data Justice Perspectives

**Week 14 (April 2 and 4) – Tech Labour in the Global South**

**April 2: Ghost Work**

Gray, M., and Suri, S. (2019). Ghosts in the machine. In *Ghost work: How to stop Silicon Valley from building a new global underclass.* Boston: Mariner Books. 1-22.

Perrigo, P. (2023). Open AI Used Kenyan Workers on Less Than $2 Per Hour to Make ChatGPT Less Toxic. Times Magazine. https://time.com/6247678/openai-chatgpt-kenya-workers/

**April 4: Call Centers**

Padios, Jan. (2018). A Nation on the line: Call centers as postcolonial predicaments in the Philippines. Durham: Duke University Press, pp. 1-33. (Introduction)

**Week 15 (April 9 and 11) – Data Rights and Resistance**

**April 9: Data Justice and Resistance**

Taylor, L. (2017). What is data justice: the case for connecting digital rights and freedoms globally. *Big Data & Society*, *4*(2), 1–14.

Snipp, M. (2016). "What does data sovereignty imply: what does it look like?" in Kukutai, Tahu, and Taylor, John. Indigenous Data Sovereignty: Toward an Agenda. Canberra: The Australian National University, pp. 39-54.

Benjamin, R. (2019). Retooling Solidarity, Reimagining Justice. In *Race After Technology*. Cambridge: Polity Press. 109-129

**April 11: No class (extra office hours will be offered)**

Students can use this time to continue working on their final paper.

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**Final Research Paper due April 18**

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**Assignment Breakdown:**

**Participation:** The grade for participation will be assessed based on attendance and engagement weekly discussions and guest lectures. Additionally, students will be asked to come up with 1-2 questions for each of the three guest lecturers and bring them to class. This will count towards **5 percent** of the grade. There will also be five in-class pop quizzes which will be completed during lecture time and will count for **10 precent** of the grade. The quizzes are meant to test your knowledge of assigned course materials. Participation will be worth a total of **15 percent.**

For all assignments, you will receive an instructions document that includes a detailed explanation of expectations and grading rubric that will be used to evaluate your work.

**Weekly Responses:** You are required to submit five weekly reflections throughout the term. The responses should be around **300 words** and should demonstrate thoughtful engagement with that week's readings. The responses are due by 5pm the day before class. Each reflection will be worth 5 percent for a total of **25 percent**.

**Mid-term Paper:** This short assignment will require you to select one technological artifact from a pre-selected list and discuss the political dimensions of the artifact. You will be expected to draw from foundational texts such as "Do Artifacts have Politics?" and identify the biases, risks and visible (or hidden) political, social, and cultural consequences of that artifact. The length of this assignment is expected to be between 800 to 1000 words and will be worth 25 percent.

**Final Research Paper:** Final papers will be due on **April 19** by midnight and must be submitted via My Courses. The final assignment will involve choosing a digital technology or technique that is used in the contemporary national or international development sector and what development issue/dilemma does it attend to. This critical analysis must include a discussion of the design and deployment of a digital technology/technique, the actors involved, competing interests, politics and risks associated with the technology or technique. Questions to keep in mind: who or what does this technology serve? Does it achieve its intended aims? Does it come

with a specific narrative, or does it challenge an existing narrative? How is expertise understood in your chosen technology or technique? How can expertise be used as a strategy for exploitation? Are there any perspectives from indigenous ways of knowing and/or the global South that challenge this understanding of expertise? What, if anything, does this technology or technique achieve politically? What are the consequences? You must draw from at least 3 course readings but you can engage with additional external secondary sources including industry papers. The paper should be between 1,500 and 1800 words (about 6-8 double-spaced pages) excluding the title page, footnotes, and the bibliography. The final paper is worth **35 percent** of the total grade.

## McGill and Course Policies

**Key Academic Dates:**
Please see here for important dates https://www.mcgill.ca/importantdates/key-dates

**Non-discrimination:** My aim is to promote a safe and inclusive learning environment. This means that any offensive, violent, or harmful language will not be tolerated.  You are encouraged to disagree with your fellow students and instructors, however, any discrimination based on race, color, ethnic, national original, religion, language, gender, sexual orientation and disability will not be tolerated.

**Accommodation:** If you experience barriers to learning in this course, do not hesitate to discuss them with me and/or Student Accessibility and Achievement. If there are specific accommodations that you need access to, please let us know at the beginning of the term.

Please email or come see me if you would like me to refer to you by a different name than the name indicated in your student record or to inform me of your preferred pronouns.

**Absences:** Students are expected to attend weekly lectures. Notification of more than three consecutive absences must be directed to the instructor.

**Late Policy:** Students are expected to submit assignments on time. If you are experiencing any difficulties and/or have extenuating circumstances that require an extension, please notify the instructor as soon as possible. For all other late submissions, points will be lost for each day past the due date.

**Language of Submission:** While the language of instruction at McGill University is English, students have the right to submit in French any written work that is to be graded (McGill University Charter of Students Rights).

**Email Policy:** We will do our best to respond to your email within 24 hours. However, emails sent after 5pm or on weekends will receive responses on the next business day. Please note that emails must be addressed to course instructors using appropriate and courteous language.

**Grades and Appeals:** Grades are assigned based on a scale set out by McGill's Arts and Sciences calendar (see breakdown below). We are happy to explain any grade during office

hours. If you cannot attend office hours, please book a meeting with the instructor or TA to discuss your grade. If you would like to dispute a mark, it must be done in accordance with the department of Art History and Communication Studies' appeal policy. Please keep in mind that once disputed grades are re-evaluated, the grade could remain the same, increase or decrease.

**Grading Breakdown:**

| Grades | Grade Points | Numerical Scale of Grades |
|--------|--------------|---------------------------|
| A | 4.0 | 85 – 100% |
| A- | 3.7 | 80 – 84% |
| B+ | 3.3 | 75 – 79% |
| B | 3.0 | 70 – 74% |
| B- | 2.7 | 65 – 69% |
| C+ | 2.3 | 60 – 64% |
| C | 2.0 | 55 – 59% |
| D | 1.0 | 50 – 54% |
| F (Fail) | 0 | 0 – 49% |

**Academic Integrity:** Students are expected to understand the implications of plagiarism, cheating, and any other academic offenses as outlined in McGill's Code of Student Conduct and Disciplinary Procedures. For more information, please visit: https://www.mcgill.ca/students/srr/academicrights/integrity

Please note that unsanctioned use of ChatGPT and other generative AI tools in course work may be reported as academic misconduct. Any work submitted for evaluation as part of this course may be checked with text-matching software within MyCourses.

**Instructor-generated Course Materials:** You are free to use the lectures, notes, and materials for personal use. However, because course content developed by instructors are regarded as their intellectual property, it must not be disseminated, shared in any public forum, or sold without obtaining prior written consent.

**Other Student Resources**

McGill Writing Centre: https://www.mcgill.ca/mwc/
McGill Wellness hub: https://www.mcgill.ca/wellness-hub/
Queer McGill: https://www.mcgill.ca/queerequity/resources/mcgill-clubs-and-services
First People's House: https://www.mcgill.ca/fph/prospective-students/residence
Black Students' Network: https://www.mcgill.ca/aapr/aapr-people/bsa
BIPOC Grad Network: https://pgss.mcgill.ca/en/bipoc-grad-network
International Students Services: https://www.mcgill.ca/internationalstudents/
McGill Office of Religious and Spiritual Life: https://www.mcgill.ca/morsl/