Harris School of Public Policy
University of Chicago

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Winter 2025: **Sustainable Development in the Digital Age** (PPHA 38870)

Background

This course examines the interplay between digital transformation and sustainable development, focusing on how technological innovation can present both opportunities and unintended consequences in addressing global challenges driven by environmental change and socio-economic disparities. Through scholarly research and critical case studies, participants will explore the environmental and socio-economic impacts of emerging technologies and develop strategic frameworks for integrating technological solutions with Sustainable Development Goals (SDGs). The course equips students with foundational knowledge to evaluate the role of technology in international development, understanding how responsible innovation practices can contribute to more sustainable and resilient societies**.**

Learning Objectives

By the end of this course, you will be able to:

1. Analyze the role of digital technologies in shaping global policy frameworks, particularly their influence on achieving Sustainable Development Goals (SDGs).
2. Critically assess the risks, benefits, and trade-offs of emerging technologies in sustainable development, applying insights from policy-relevant case studies.
3. Collaborate with diverse stakeholders based on ethical co-design protocols that promote inclusivity in addressing complex technology-related challenges.
4. Formulate and justify a theory of change that aligns digital solutions with sustainable policy outcomes and measurable socio-environmental impacts.
5. Apply qualitative research methods and demonstrate creative problem-solving skills in real-world contexts, effectively communicating policy insights through writing and presentations.
6. Evaluate and synthesize strategies for addressing digital transformation challenges, considering the interplay between public policy, social systems, and cultural differences.

Prerequisites

While this course does not have formal prerequisites, it focuses on qualitative research and capacity-building, serving to complement the quantitative and analytical skills typically developed in foundational coursework at Harris. Activities will include classroom discussions, design-thinking workshops, and collaborative group projects that rely on active participation and effective communication. Students are encouraged to bring an open mind and a willingness to engage with complex, multi-stakeholder environments.

How This Course Will Work

Students can expect a dynamic learning environment that blends critical analysis, hands-on practice, and real-world applications. Course sessions typically consist of a mini-lecture and a discussion of assigned readings, followed by interactive workshops introducing design-thinking methods for crafting digital policies aligned with course topics. Students will also have the chance to apply these concepts in practice by collaborating in teams with a designated social innovation hub. This phase includes engaging with community stakeholders through flexible online meetings to address a digital transformation challenge, focusing on ethical co-design strategies and the creation of impactful, context-specific solutions. Students are expected to complete all assigned readings before class, attend all in-person sessions, and actively participate in discussions and group activities. Canvas will serve as the primary platform for accessing course materials, announcements, and assignment submissions.

Student Assignments

1. **Weekly Reading Responses** / 20% of final grade
   Each week, contribute a 250–300 word reflection on the assigned readings, focusing on key themes, critical questions, and constructive critiques. These reflections are designed to deepen engagement with the material and prepare for in-depth discussions and collaborative activities. Submit your reflections on Canvas by Monday at 11:59 PM.

2. **Discussion Leadership** / 20% of final grade
   Collaborate in small groups to open our classroom discussion with a 15-minute talk once during the quarter. This includes synthesizing insights from peers' weekly reading reflections, identifying shared themes and diverse perspectives, and posing thought-provoking prompts that connect the week's readings to broader course objectives. Submit presentation materials on Canvas before class.

3. **Co-Design Protocol** / 20% of final grade
   Work in teams to collaborate with community stakeholders from a designated social innovation hub to identify a digital transformation challenge relevant to the local context. Using methods explored in class, prepare a 3–4 page written statement (double-spaced) that defines the identified challenge and outlines the process your team will use to collaborate with stakeholders in co-designing a solution. This document will lay the groundwork for your final project. Teams will present their findings and approach during Week 8.

4. **Theory of Change** / 40% of final grade
   Building on the co-design protocol, work in teams to craft a comprehensive theory of change in collaboration with your stakeholders that addresses the identified digital transformation challenge. Prepare a 5–6 page written report (double-spaced) that articulates the reasoning behind the proposed solution, its intended outcomes, and its connections to the Sustainable Development Goals (SDG) framework. Teams will present their final project during Week 9.

Course Schedule

Course sessions are thematically organized around the four dimensions of the Sustainable Development Goals (SDGs), referred to as the four P's—People, Planet, Prosperity, and Peace. We will use these themes as a lens to explore the intersection of digital policy and sustainable development. The weekly course schedule and assigned readings will be provided as digital copies on Canvas. No book purchases are required for full participation in this class.

[Module 1] ***Social Goals: Technology and People***
This module explores how technology can both enhance and impede human well-being and community resilience. Key discussions include the impact of digital literacy on closing social divides, the trade-offs between imported tech solutions and local, community-driven innovations, the role of social innovation practices in creating equitable tech solutions, and strategies to prevent ethics-washing in equitable tech design.

[Module 2] ***Environmental Goals: Technology and the Planet***
This module explores how technology can both enhance and impede climate action and sustainability. Key discussions include the environmental footprints of digital platforms (e.g., energy consumption and e-waste), the emergence of green innovation practices to develop sustainable technology solutions, the trade-offs between high-tech solutions and low-TEK practices, and strategies to address green-washing in sustainable tech design.

[Module 3] ***Economic Goals: Technology and Prosperity***
This module explores how technology can both enhance and impede economic growth and resilience. Key discussions include the role of disruptive technologies in creating new economic models and reshaping labor markets, the trade-offs between rapid technological advancement and regulatory frameworks (e.g., automation and resource inequity), and the policy interventions needed to promote equitable and sustainable economic outcomes.

[Module 4] ***Enabling Goals: Technology and Peace***
This module examines how technology can both enhance and impede international diplomacy and governance. Key discussions include the potential of digital platforms to foster inclusive decision-making, the risks posed by surveillance technologies and misinformation to democracy and human rights, the trade-offs of deploying digital platforms in peacekeeping, and strategies for leveraging global partnerships to create digital governance frameworks.

Grading Policies and Procedures

This course adheres to the University of Chicago's Common Grade Policy, which uses a 4-point scale for quality grades. Each assignment will receive a letter grade corresponding to the point values outlined in the policy, as follows: 4.0 = A, 3.7 = A-, 3.3 = B+, 3.0 = B, 2.7 = B-, 2.3 = C+, 2.0 = C, 1.7 = C-, 1.3 = D+, 1.0 = D, F = 0. All assignments are graded qualitatively, and descriptive definitions of the letter grades (e.g., what constitutes an "A" or "B") will be provided on Canvas. Final grades will be calculated based on the weighted distribution of assignments outlined in the 'assignments' section of this syllabus. For further details on grading policies, students are encouraged to consult the University's Registrar website.

Instructor Office Hours

TBA

Teaching assistant(s) and/or graders

TBA

General Resources Available to Students

- Harris Academic Support Programs and Handbook
- Student Wellness
- UChicagoGRAD

Harris School and University of Chicago Policies

- Harris School Policies
- University General Policies
- University Academic Polices