COURSE: Inclusive Digital Platforms for Circular Ecosystems
DEPARTMENT: POI/TDS
PROGRAM: CMCD AE
SEMESTER AND YEAR: 2nd 2024
CLASS-HOURS: 15 hours
PROFESSORS: Susana C. F. Pereira & Eduardo H. Diniz
LANGUAGE: English

COURSE DESCRIPTION

"Inclusive Digital Platforms for Circular Ecosystems" is a course for PhD and MSc students seeking to explore the transformative potential of digital technologies in fostering inclusive and sustainable economies. In today's interconnected world, digital platforms play a pivotal role in reshaping traditional economic models towards circularity while ensuring inclusivity across diverse communities and stakeholders.

This course provides an in-depth examination of how digital platforms can be leveraged to optimize resource use, minimize waste, and promote equitable participation within circular ecosystems. Through a blend of theoretical insights and practical illustrative case studies, participants will develop the knowledge, skills, and critical perspectives necessary to drive innovation in this rapidly evolving field.

By the end of the course, participants will emerge with a comprehensive understanding of the opportunities and challenges associated with leveraging digital platforms to advance sustainability goals through circular ecosystems.

LEARNING GOALS

The course learning goals are presented in the table below, showing how they contribute to the learning goals related to the objectives of CMCDAE.

LEVEL OF CONTRIBUTION *			
High	Medium	Low	None
●●●	●●○	●○○	○○○

CMCDAE Objectives	Course learning goals	Level of Contribution
Qualitative research methods	students will be exposed to papers presenting robust employment of qualitative methods, although discussion on methods will not be the focus	●○○
Quantitative research methods	students will be exposed to papers presenting robust employment of quantitative methods, although discussion on methods will not be the focus	●○○
Knowledge of research themes (Master) and theory (Doctorate)	students will learn how to evaluate the most recent research themes and theories employed to investigate circular ecosystems based on digital inclusive platforms	●●●
Design and Development Research	students will be assisted to develop their own research based on the topics discussed in the course	●●○
Relevance (Master and Doctorate) and innovation (Doctorate) in research	students will be empowered to conduct cutting-edge research focusing in innovative solutions that drive positive change towards a more inclusive and regenerative future	●●●
Development of academic papers	students will be evaluated by their ability to propose a a research topic and choose a journal based on topics of the course	●●○
Other course learning goals:.....		

PREVIOUS KNOWLEDGE REQUIRED

Tiwana, A. (2013). Platform ecosystems: Aligning architecture, governance, and strategy. *Newnes*.

Diniz, E. H., Siqueira, E. S., Van Heck, E. (2019). Taxonomy of digital community currency platforms. *Information Technology for Development*, 25(1), 69-91

Sehnem, S., Vazquez-Brust, D., Pereira, S. C. F., & Campos, L. M. (2019). Circular economy: benefits, impacts and overlapping. Supply Chain Management: An International Journal, 24(6), 784-804.

CONTENT/METHODOLOGY

Key topics covered in this course include:

1. Foundations of Circular Economy: Participants will gain a comprehensive understanding of circular economy principles, exploring concepts such as resource optimization, waste reduction, and closed-loop systems.
2. Sustainable Development Goals: Topics in the course will cover the connections of digital inclusive platform ecosystems with the United Nations 2030 Agenda for Sustainable Development.
3. Technological Innovations: From recycling platforms to blockchain-enabled supply chains, participants will explore emerging technologies driving the transition to circularity and their implications for inclusivity.
4. Policy and Governance: Understanding the role of policy frameworks and governance structures is essential for creating an enabling environment for circular initiatives. This module will examine policy tools, regulations, and strategies for fostering inclusive circular economies.
5. Business Models Ecosystems: Building viable businesses within circular economies requires innovative thinking and entrepreneurial skills. Participants will learn about circular business models, and strategies for scaling inclusive ventures.
6. Case Studies and Best Practices: Real-world examples from diverse sectors – including manufacturing, agriculture, and urban development – will provide insights into successful circular initiatives and highlight best practices for fostering inclusivity.

Through a combination of lectures, seminar and class discussions, participants will not only deepen their theoretical understanding but will be equipped to become catalysts for sustainable innovation, leading the way towards more inclusive and resilient circular ecosystems.

ASSESSMENT

Students work will be assessed through three different criteria:

final project: 50% (mid term delivery 15%)

seminars: 30%

participation: 20%

Final project will be a research paper proposed by students with focus on future publication in relevant journals. A pre-proposal for each project will be expected as mid term assignment as a way for the professors to contribute to the students final project.

All students will have to present two seminars along the course based on papers related to the topic of the course.

Individual participation will be evaluated based on class discussions on papers with mandatory reading.

BIBLIOGRAPHICAL REFERENCES

Blackburn, O., Ritala, P., & Keränen, J. (2023). Digital platforms for the circular economy: exploring meta-organizational orchestration mechanisms. *Organization & Environment*, 36(2), 253-281.

Bonina, C., Koskinen, K., Eaton, B., & Gawer, A. (2021). Digital platforms for development: Foundations and research agenda. *Information Systems Journal*, 31(6), 869-902.

Dearden, A., & Kleine, D. (2021). Interdisciplinarity, self-governance and dialogue: the participatory process underpinning the minimum ethical standards for ICTD/ICT4D research. *Information Technology for Development*, 27(2), 361-380.

de Vasconcelos Gomes, L. A., Castillo-Ospina, D. A., Facin, A. L. F., dos Santos Ferreira, C., & Ometto, A. R. (2023). Circular ecosystem innovation portfolio management. Technovation, 124, 102745.

Dixit, G. (2023). How do localized socio-economic platform ecosystems emerge?: a mobile platform to bring the market to villagers in Himalayan forests. *Information Technology for Development*, 29(2-3), 205-227.

Fehrer, J. A., Kemper, J. A., & Baker, J. J. (2024). Shaping circular service ecosystems. *Journal of Service Research*, 27(1), 49-68.

Fehrer, J. A., & Wieland, H. (2021). A systemic logic for circular business models. Journal of Business Research, 125, 609-620.

Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. Journal of Cleaner production, 114, 11-32.

Jacobides, M. G., Cennamo, C., & Gawer, A. (2024). Externalities and complementarities in platforms and ecosystems: From structural solutions to endogenous failures. *Research Policy*, 53(1), 104906.

Kirchherr, J., Piscicelli, L., Bour, R., Kostense-Smit, E., Muller, J., Huibrechtse-Truijens, A., & Hekkert, M. (2018). Barriers to the circular economy: Evidence from the European Union (EU). *Ecological economics*, 150, 264-272.

Parida, V., Burström, T., Visnjic, I., & Wincent, J. (2019). Orchestrating industrial ecosystem in circular economy: A two-stage transformation model for large manufacturing companies. Journal of Business Research, 101(January), 715–725.

Konietzko, J., Bocken, N., & Hultink, E. J. (2020). Circular ecosystem innovation: An initial set of principles. *Journal of Cleaner Production*, 253, 119942.

Osei-Bryson, K. M., Brown, I., & Meso, P. (2022). Advancing the Development of Contextually Relevant ICT4D Theories-From Explanation to Design. E*uropean journal of information systems*, 31(1), 1-6.

Phadnis, S. S. (2023). Creating Value through Supply Chain Orchestration as a Business Model. Academy of Management Perspectives, (ja), amp-2022.

Rovanto, I. K., & Bask, A. (2021). Systemic circular business model application at the company, supply chain and society levels—A view into circular economy native and adopter companies. Business Strategy and the Environment, 30(2), 1153-1173.

Sun, R., & Gregor, S. (2023). Reconceptualizing platforms in information systems research through the lens of service-dominant logic. *The Journal of Strategic Information Systems*, 32(3), 101791.

COURSE SCHEDULE (OPTIONAL)

PROFESSOR MINI CV

Susana C. F. Pereira is an Associate Professor of Sustainable Supply Chain Management at Fundação Getulio Vargas, São Paulo, Brazil (FGV-EAESP), Director of FGV Innovation Research Center (FGVin), Program Director of the Global MBA Manchester-FGV and a researcher for the Center for Excellence in Logistics and Supply Chain (GVCelog). She was a visiting Scholar at The George Washington University (GWU) from September 2022 to February 2023. Dr Pereira holds a Productivity Fellowship from The National Council for Scientific and Technological Development (CNPq) and is currently serving as Scientific Director of the National Graduate Association (EnANPAD) in Brazil. Susana is a member of the Assurance of

Learning Assessment Committee at FGV EAESP, of the Scientific Committee of CEA/Federal University of Ceará, and of the Superior Council of Innovation and Competitiveness (CONIC) at the Federation of Industries of the State of São Paulo (FIESP). Her main research interests are sustainability in operations and supply chains, supply chain resilience, and supply chain innovation. Her research in these fields has been published in top-tier journals such as the International Journal of Operations & Production Management, Supply Chain Management: An International Journal, International Journal of Production Research, Production Planning & Control, Journal of Purchasing and Supply Management and Business Strategy and the Environment.

Eduardo H. Diniz is Professor at the Business School of São Paulo at Fundação Getulio Vargas (EAESP-FGV) since 1999, being Head of the Department of Technology and Data Science (TDS) from 2018 to 2021.He was editor-in-chief of RAE, Revista de Administração de Empresas, GVexecutivo and GVcasos, from January 2009 to December 2015.Graduated in Electrical Engineering, with emphasis on electronics, at the São Carlos School of Engineering USP (1983), Master in Business Administration from Fundação Getúlio Vargas - SP (1994) and Ph.D. in Business Administration from Fundação Getúlio Vargas - SP (2000). Visiting Scholar at the University of California, Berkeley (1996-98), HEC Montréal (2007), Erasmus University (2016-17) and University of Glasgow (2022-23). He is Bellagio Fellow, with the Rockefeller Foundation in 2014, and researcher at the Center for Microfinance and Financial Inclusion at FGV, GVcemif since 2007. He was coordinator of the ADI, Information Systems academic division, at the National Association of Graduate Studies and Research in Administration (Anpad) from 2005 to In 2020 was awarded as "Outstanding Contributor" of this academic division. His research interests include technology applications and impacts on banks, government and society, and has published numerous academic papers on financial inclusion at international conferences (ICIS, EGOS, Academy of Management, AMCIS, etc.) and MISQuarterly, Journal of Global Information Management , Public Administration, Innovations MIT, Information Technology and International Development, Information Development and Electronic Commerce Research and Applications, The European Financial Review. His research was funded by international agencies such as the National Science Foundation (NSF), the International Development Research Center (IDRC), the World Bank, the Bill and Melinda Gates Foundation and the Rockefeller Foundation. He is often invited to participate as a guest in international events organized by the World Bank, central banks and bank federations in Brazil, and other countries.

OTHER INFORMATION (OPTIONAL)