Living Lab and Social Innovation

Spring 2024
Department of International Relations
Yonsei University
Instructor: Sangbum Shin
Class Meeting: Tuesdays 2:00-4:00
Classroom:
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Course Overview

Living labs are a way of problem-solving and innovation organized and implemented by citizen initiatives. Citizens (residents) find problems in their local communities, create cooperative networks with various types of actors such as academics, businesses, and governments, design and implement experiments, create prototypes and apply them into the problems, and seek business opportunities based on the innovative outcomes. Living labs are innovative ecosystems in real-life environments. The local areas where we live become a lab for experiments. Various experiments are conducted in our neighborhoods to tackle local problems. These experiments make the innovation process flexible, participatory, and inclusive.

This course aims to analyze living labs from the perspective of political science. The questions we will ask are (1) What is the difference between living lab and other types of citizen participation? (2) How can citizens be empowered by living lab activities? (3) What are the advantages and disadvantages of co-creation approach? (4) What are the specific roles of the different actors in living labs such as citizens, universities, businesses, and governments? (5) If citizens create their own data, is this connected to citizen empowerment and democratic deliberation? (6) What are the political, economic, social, and cultural conditions that enable living labs to be effective? (7) How can we measure the effectiveness of living labs? (8) How deeply are citizens engaged in actual living lab experiments? What determines their specific roles and intensity of participation?

In addition to the above questions, students will bring many other important research questions based on their own academic interests. Living lab experiments have been very active in some European cities but they are widespread in Korea to date. However, not many countries have experienced living lab activities to date. Students can investigate the living lab activities in their home countries and find some similarities and differences between their countries and European countries (also from Korea). If there is no living lab in a country, we must ask why the country lacks living labs. This raises a question of under which conditions do living labs to work effectively.

As always, the most important product from this course will be your high-quality **research design**, which should be utilized immediately for writing a manuscript.

The language of instruction is English, and students should submit all requirements in English. (You can write all requirements in Korean too)

Requirements

- Students should attend every session on time.
- Students should write 10 weekly memos and submit them on time. The memo should be 5 pages, double spaced, MS Word, 1 inch margin. Do not go over 5 pages. Do not change the format. Late memos are not accepted. Memos should be uploaded to the Learn Us system.
- Students should turn in a one-page prospectus of their research design. It should include research question and the importance of the topic. This is due by 10:00 PM on April 28. I do not accept any late submissions.
- Students should turn in the final version of their research design by June 18. I do not accept any late submissions.

Grades

- Attendance 10
- Research Prospectus 10
- Memos 50
- Research Design 30

Schedules

Week 1. Introduction (March 5)

What is living lab and why do we study it in the political science context? What are the advantages of studying living labs in the context of political science?

Memo 1. Summarize the two articles and provide your own definition of living lab as a conclusion.
(Due by 10:00 PM on March 10) (This is for the discussion in Week 2)

Mokter Hossain, Seppo Leminen, & Mika Westerlund. 2019. "A systematic review of living lab literature." *Journal of Cleaner Production*, 213: 976-988.

Kris Steen and Ellen van Bueren. 2017. "The Defining Characteristics of Urban Living Labs." *Technology Innovation Management Review*, 7(7): 21-33.

Week 2. Definitions (March 12)

What are the definitions of living lab and what are the key characteristics of living lab?

Memo 2. Summarize the two articles and provide your own opinions on the possibility of living lab as a new form of urban governance. (Due by 10:00 PM on March 17)

Harriet Bulkeley, Lars Coenen, Niki Frantzeskaki, Christian Hartmann, Annica Kronsell, Lindsay Mai, Simon Marvin, Kes McCormick, Frank van Steenbergen, and Yuliya

Voytenko Palgan. 2016. "Urban living labs: governing urban sustainability transition." *Current Opinion in Environmental Sustainability*, 22: 13-17.

Annica Kronsell and Dalia Mukhtar-Landgren. 2018. "Experimental governance: the role of municipalities in urban living labs." *European Planning Studies*, 26(5): 988-1007.

Week 3. Living Lab as a New Form of Urban Governance (March 19)

Can living lab be a new form of urban governance?

Memo 3. Summarize the article and explain different roles that citizens can take during the living lab co-creation. (Due by 10:00 PM on March 24)

Mascha Menny, Yuliya Voytenko Palgan, Kes McCormick. 2018. "Urban Living Labs and the Role of Users in Co-Creation." *GAIA* 27: 68-77.

Week 4. The Role of Citizens in Living Labs (March 26)

What are the specific roles that citizens (users) can play in living lab co-creation?

Memo 4. Summarize the article and show various examples of citizen sciences. (Due by 10:00 PM on March 31)

Carina Veeckman and Laura Temmerman. 2021. "Urban Living Labs and Citizen Science: From Innovation and Science towards Policy Impacts." *Sustainability*, 13, 526: 1-15.

Week 5. Various Types of Citizen Science (April 2)

What are the examples of citizen science in living labs?

Memo 5. Summarize the article by identifying (1) research question starting with "why" (2) hypothesis (3) cases (4) research results. (Due by 10:00 PM on April 7)

Sangbum Shin and Xinyu Li. 2023. "The role of the living lab in smart city projects: A comparative case study of two Northeast Asian cities." *Analyses & Alternatives*, 7(2): 7-33.

Week 6. Research Design (April 9)

What are the stages of research design? How can we avoid errors and mistakes in constructing research design?

Memo 6. Summarize the article in detail and explain specifically what role the major participants of living lab projects played in the four cases. (Due by 10:00 PM on April 14)

Carina Veeckman and Shenja van der Graaf. 2015. "The City as Living Laboratory: Empowering Citizens with the Citadel Toolkit." *Technology Innovation Management Review*, 5(3): 6-17.

Week 7. The Case of Smart City (April 16)

What else could we find as an example of a smart city living lab in other cities? Do you have similar examples in your country?

Research Prospectus (only one or two paragraphs, including the research question and the importance of the topic) (Due by 10:00 PM on April 28)

Week 8. Midterm Period (April 23)

No Class

Week 9. Individual Meetings (April 30)

Individual Meetings with Professor

Memo 7. Summarize the two articles and discuss how to evaluate the effectiveness of living labs and how to measure it. (Due by 10:00 PM on May 5)

A. Berberi, C. Beaudoin, C. McPhee, J. Guay, K. Bronson & V. M. Nguyen. 2023. "Enablers, barriers, and future considerations for living lab effectiveness in environmental and agricultural sustainability transitions: a review of studies evaluating living labs." *Local Environment*, published online on 05 August 2023.

Krassimira Paskaleva and Ian Cooper. 2021. "Are living labs effective? Exploring the evidence." *Technovation*, 106: 1-10.

Week 10. The Effectiveness of Living Labs (May 7)

How can we estimate the effectiveness of living lab? What are the indicators?

Memo 8. Summarize the article and explain the relationship between open data and democracy. (Due by 10:00 PM on May 12)

Erna Ruijer, Carmen Dymanus, Erik-Jan van Kesteren, Laura Boeschoten, and Albert Meijer. 2024. "Open data work for empowered deliberative democracy: Findings from a living lab study." *Government Information Quarterly*, 41: 1-13.

Week 11. Open Data Making and Democracy (May 14)

How can citizens make and use open data in living labs? Why is this important in the context of deliberative democracy?

Memo 9. Summarize the two articles and provide your own idea of research design about SDGs and living lab. (Due by 10:00 PM on May 19)

Walter Leal Filho, Pinar Gokcin Ozuyar, Maria Alzira Pimenta Dinis, Anabela Marisa Azul, María Garcia Alvarez, Samara da Silva Neiva, Amanda Lange Salvia, Bruno Borsari, Andreea Danila, and Claudio Ruy Vasconcelos. 2023. "Living labs in the context of the UN sustainable development goals: state of the art." *Sustainability Science*, 18: 1163-1179.

Lorenzo Compagnucci, Francesca Spigarelli, Jose Coelho, and Carlos Duarte. 2021. "Living Labs and user engagement for innovation and sustainability." *Journal of Cleaner Production*, 289: 1-18.

Week 12. Living Lab and Sustainable Development Goals (May 21)

How can we construct a research design in which living lab is connected to SDGs? Can we find some cases?

Memo 10. Summarize the two articles and discuss how living lab can be utilized in higher education. (Due by 10:00 PM on May 26)

Hacer Tercanli and Ben Jongbloed. 2022. "A Systematic Review of the Literature on Living Labs in Higher Education Institutions: Potentials and Constraints." *Sustainability*, 14: 1-27.

Ivetheyamel Morales, Jordi Segalás, and Torsten Masseck. 2023. "Urban Living Labs: A Higher Education Approach to Teaching and Learning about Sustainable Development." *Sustainability*, 15: 1-20.

Week 13. Living Lab in University Education (May 28)

How can we utilize living lab in universities? Does living lab improve teaching and learning methods in university education?

No Memo

Week 14. Final Check (Individual Meetings) (June 4)

Individual Meetings with Semi-Final Versions

Week 15. Conclusions (June 11)

Final Version of Research Design Due by June 18.