IDX 597\_03: Theory and Foundations of HCD: The Role and Application of Theory in Design Research

*Exploring theory as a means of providing exploratory power to design*

Format: **Seminar** | Credits: **03** | Core: **Human Advocacy/Insight Development** |Faculty: **John Cain & Chris Miller**

Course Overview

As the nature of design has grown from being form and object-oriented, to include ways in which design action can shape relationships, processes and experiences, designers are challenged to develop and communicate perspectives that provide analytic rigor, meaning, and plausible explanations for the complex phenomena and contexts with which they engage. In this shift, the role and application of *theory*, the systematic way of understanding events, behaviors and/or situations, has become increasingly important to the activity of design and to designers. Yet, designers’ ability to understand, carefully consider and apply theory is often underplayed as a structuring element and aid in the synthesis of new solutions. In large part, this is due to the common (but mistaken) notion that theory is the domain of academic theorists and has little practical value in applied practice. Through lecture, discussion, and projects, this course seeks to demystify and explore theoryas it relates to design and design research with the goal of understanding how theory in design evolves through “practice, experimentation, and making.” (Redstrӧm 2017).

Learning Objectives

The goal of this class is to explore the role of theory and its application in the field of design. This entails but is not limited to:

· Acquiring a working definition of theory

· Learning about and applying key theoretical constructs

· Understanding what constitutes “good” theory

· Comparing “professional” theory and “lay” theory and describing the contributions of each type

· Understanding how theory in design is developed and how it evolves

Learning Outcomes

· Describe a variety of theoretical constructs and frameworks

· Recognize the contributions of “professional” and “lay” theory

· Apply theory in design research and analysis to bring analytical power to insights

· Compare and contrast theory in design to theory in other disciplines

Course Outline

1. Introductions, definitions and basic concepts

2. The relationship between theory, observational research, and data analysis

3. Working with existing theoretical frameworks and constructs

4. Developing design theory

5. Project demonstration

6. Synthesis and wrap up

**Formats & Grading**

Through a seminar/studio format, students will explore a range of theoretical frameworks from diverse disciplines with a focus on their potential application within the realm of design. Grading is based on individual and team-based weekly reflections that integrate written and visual interpretation of theoretical frameworks. The final project requires students to apply existing or grounded theory to original research, producing visual models and written theoretical analysis.

Enrollment Constraints

No prerequisites

**Class format:** Each week we will explore one specific theory or theory cluster. A set of required readings are assigned and discussed in class in debate form. For some weeks, students will be given a short project to demonstrate their command of the topic.

**Readings reflection.** Each week, bring a 3 x 5 in card with your name, date and your response to: “What important question from the reading do you think our group might consider today?” Cards will be collected as a way of taking to attendance.

**Studio exercises.** To supplement our readings, there will be a weekly exercise to be done outside of class. This can involve fieldwork, note taking, analysis and interpretation of field data –all done using the theory of the week.

**REFERENCES**

Redstrӧm, J. (2017). *Making Design Theory*. Cambridge, MA: MIT Press.

**Course Schedule: *Changes will be announced in class and through Blackboard***

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| **Week/date** | **What we’ll cover in class** | **Prep for the following week** |
| **Week 1: Wednesday, August 22** | 1 Class outline -general discussion of aims and methods of the course; class intros; faculty intros; *“How to Read” in a graduate seminar.*  2 Context for this class -discussion/presentation of what do we mean by theory? What’s the difference between theory, concept, principle and idea? Who makes theory and what is a ‘good’ one. What is the role for in design research (framing, field, analysis, storytelling, design synthesis)?  3 What is *social* *theory*? discussion/presentation: Where does it come from? Why is it important in design? Examples of theories and from the instructor’s own work and notable others | **Studio**  Assignment #1: direct observation  **Reading:**  “Introduction – Social Theory: Its Uses and Pleasures” by C. Lemert (from *Social Theory: The Multicultural, Global, and Classic Readings,* 6th ed.) |
| **Week 2: Wednesday, August 29** | **“Observing Users”**  Studio assignment #1 due; readout in class  Lemert reading due: bring note cards, class discussion.  **Ques. for discussion:**  \*“Social theory...is about the mundane and the concealed - those hidden aspects of social life we sometimes encounter in the ordinary course of daily life.” (p.2)  \*How is social theory “a basic survival skill”? (p.1)  \*What examples of professional and lay social theory does Lemert provide? What are the difference between “professional social theorists” and “lay social theorists”? | **Theory: Time and temporality ‘simple’**  **Studio**  Assignment #2: make a simple temporal map like tooth brushing or a simple customer journey; an experience organized by time  **Reading:**  Gell, Alfred. ‘The Anthropology of Time: Cultural Constructions of Temporal Maps and Images.’ Chapter 1 Durkheim. |
| **Week 3: Wednesday, September 5** | **Theory: Time and temporality ‘simple’**  Studio assignment #2 due; readout in class  Gell reading due: bring note cards for in-class discussion. | **Theory: Time and temporality ‘complex’**  **Studio**  Assignment #3: fieldwork documenting the experience of time from the perspective of attitudes, assumptions, beliefs, routines, and other behaviors.  **Reading:**  Judy Wacjman ‘Pressed for Time’ Introduction  AND  Judy Wacjman ‘Pressed for Time’ Ch 7. |
| **Week 4: Wednesday, September 12** | **Theory: Time and temporality ‘complex’**  Studio assignment #3 due; readout in class  Wacjman reading due: bring note cards for in-class discussion. | **Theory: Spatio-temporal relationships -**  **Studio:**  Assignment #4: TBD  **Reading:**  Sharp, Lauriston. 1952. "Steel Axes for Stone Age Australians." *Human Organization* 1.  Woodward, Ian (2014) Part 1: Locating Material Culture (from *Understanding Material Culture*) |
| **Week 5: Wednesday, September 19** | **Theory: Spatio-temporal relationships**  Studio assignment #4 due; readout in class  Sharp and Woodward readings due: bring note cards for in-class discussion. | **Theory: Attention and Social Cognition: Psychology**  In an effort to deepen their understanding of human behavior, psychologists have shifted away behaviorism to focus on cognitive analysis: how people think and feel as a window into understanding how they behave. Described as the “cognitive revolution”, theory related to attention, perception, and social cognition hold great interest for designers.  **Studio:**  Assignment #5: XXX  **Reading:**  “Attention, Perception, and Social Cognition” by Galen V. Bodenhausen and Kurt Hugenberg (Chapter 1 from *Social Cognition: The Basis of Human Interaction*) |
| **Week 6: Wednesday, September 26** | **Theory: Attention and Social Cognition: Psychology**  Studio assignment #5 due; readout in class  Bodenhausen and Hugenberg reading due: bring note cards for in-class discussion. | **Theory: Learning/Affordance**  **Studio:**  Assignment #6: TBD  **Reading:**  Vygotsky’s Zone of Proximal Development. “Interaction Between Learning and Development” by L. Vygotsky (Chapter 4 from *Readings on the Development of Children*)  AND  JJ Gibson’s Affordance Theory. “The Theory of Affordance” by J.J. Gibson (Chapter 8 from *The Ecological Approach to Visual Perception*)  AND  E Wenger’s Communities of Practice (social learning - *Community & social groups*). “Communities of practice and social learning systems” (Chapter from D. Nicolini, S. Gherardi, & D. Yanow (Eds.), |
| **Week 7: Wednesday, October 3** | **Theory: Learning/Affordance**  Studio assignment #6 due; readout in class  Vygotsky, Gibson and Wenger readings due: bring note cards for in-class discussion. | **Theory: Agency and Power**  **Studio:**  Assignment #7: TBD  **Reading:**  Ortner (2006). *Anthropology and Social Theory: Culture, Power and the Acting Subject* (Chapter 6 “Power and Projects: Reflections on Agency”) |
| **Week 8: Wednesday, October 10** | **Midterm DUE Oct. 5th; no class**  **(move to Kaplan)** | Midterm proposals due Sun., Oct. 14 |
| **Week 9: Wednesday, October 17** | **Theory: Agency and Power**  Studio assignment #7 due; readout in class  Ortner reading due: bring note cards for in-class discussion. | **Feminist Theory**  **Studio:**  Assignment #8: TBD  **Reading:**  D Haraway (1988/2006). “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late 20th Century” (Chapter 4 from *The International Handbook of Virtual Learning Environments*)  AND  Forlano, Laura. 2017. "Posthumanism and Design." *She Ji* 3 (1):16-29. |
| **Week 10: Wednesday, October 24** | **Feminist Theory**  Studio assignment #8 due; readout in class  Haraway and Forlano readings due: bring note cards for in-class discussion.  **GUEST: Maryam Heidaripour** | **Design and Transition Theory**  **Studio:**  Assignment #9: TBD  **Studio:**  Assignment #11: TBD  **Reading:**  Poggenpohl’s Introduction. *Design Theory to Go* “Introduction” (Poggenpohl 2018)  AND  Redstrӧm (2018) Chapter 1 “Thing and Theory”. *Making Design Theory* |
| **Week 11: Wednesday, October 31 Halloween** | **Theory: Actor Network and Social Construction**  Studio assignment #9 due; readout in class  Poggenpohl, Redstrӧm readings due: bring note cards for in-class discussion.  Geertz, Poggenpohl readings due: bring note cards for in-class discussion. | **Theory: Culture and Practice**  **Studio:**  Assignment #10: TBD  **Reading:**  C Geertz (1973) “Thick Description: Toward an Interpretive Theory of Culture”)  AND  C Geertz (2005) “Deep Play: notes on the Balinese Cockfight” Daedalus, 134(4)  AND  S Poggenpohl “Cultural Difference”. *Design Theory to Go* “Cultural Difference” (pp. 60-71) (Poggenpohl 2018) |
| **Week 12: Wednesday, November 7** | **Theory: Culture and Practice**  Studio assignment #10 due; readout in class | **Theory: Social Construction**  **Studio:**  Assignment #11: TBD  **Reading:**  J Law (1999) “Technology and Heterogeneous Engineering: The Case of Portuguese Expansion” (from *The Social Construction of Technological Systems)* |
| **Week 13: Wednesday, November 14** | **Theory: Design and Transition Theory**  Studio assignment #11 due; readout in class  Latour, Law readings due: bring note cards for in-class discussion. | **User Research and Grounded Theory**  **Studio:**  Assignment #12: TBD  **Reading:**  Hodges, et al. (2017) Four Criteria for Design Theories. She Ji |
| **Week 14: Wednesday, November 21** | **No class; Thanksgiving week** |  |
| **Week 15: Wednesday, November 28** | **Theory: User Research and Grounded Theory**  Studio assignment #12 due; readout in class  Bezaitis & Robinson reading due: bring note cards for in-class discussion.  **FINAL PRESENTATIONS** | **Theory: Complexity, Design Studies and Wicked Problems**  **Studio:**  Final assignment TBD  **Reading:**  H Rittel & M Weber (1973) Dilemmas in a General Theory of Planning (*Policy Sciences* 4: 155-169)  AND  V Margolin (1991) Design Studies and the Education of Designers  AND  R Buchanan (1992) Wicked Problems in Design Thinking |
| **Week 16: Wednesday, December 5**  **Last class** | **Theory: Complexity and Wicked Problems**  Rittel & Webber, Buchanan, and Margolln readings due: bring note cards for in-class discussion. |  |

**Theory: Culture and Practice**

**Theory: Actor Network and Social Construction**

B Latour (1996). *On Actor-Network Theory: A few clarifications* (Latour 1996) .pdf article

AND

Bezaitis & Robinson (2018). Design Anthropology: Object Cultures in Transition (Chapter 4 – “Valuable to Values: How User Research Ought to Change”)

AND