

Organization Studies: Selected Doctoral Theses

“Essays on Professionals’ Temporal Autonomy”

Author: Vanessa Conzon (2021)

Committee: Erin Kelly (co-chair), Susan Silbey (co-chair), Catherine Kellogg, Ezra Zuckerman-Sivan

Abstract:

Professionals struggle to control their work time, despite often (1) having relatively greater control over their work tasks, and (2) wanting to control their work time. My dissertation addresses this empirical and theoretical puzzle by refining our understanding of why professionals face difficulties expanding their temporal autonomy, and identifying mechanisms and processes that can address these barriers. I draw upon data from four separate ethnographic studies of STEM professionals. In my first essay, I identify conditions under which managers either support or limit employees’ use of flexible work policies, and in turn, facilitate increases in professionals’ temporal autonomy. In my second essay, I show how professionals—independent of managers—collaborate to expand control over their work hours. In my third essay, I show how professionals’ temporal autonomy is shaped by family responsibilities. Overall, I contribute to the literature on professions, as well as related literatures on temporality and time in organizations, flexible work schedules, and the work-life interface. This dissertation also contributes to our understanding of gender inequality by showing how gendered experiences of time subtly disadvantage women.

“How Technology Vendors Incorporate Frontline Worker Interests During the Cyclical Lifecycle of Intelligent Technologies”

Author: Jenna Myers (2021)

COMMITTEE: Kate Kellogg (chair), Tom Kochan, Wanda Orlikowski

ABSTRACT:

This dissertation analyzes how frontline worker interests can be both included and affected throughout the lifecycle of intelligent technologies (e.g., AI-enabled sensors, robotics, and analytics), with a particular focus on the role of third-party technology vendors. By drawing on a 31-month ethnographic study of a digital production monitoring technology used by manufacturing firms, I examine the barriers, facilitators, and processes that guide how frontline workers are considered during technology design, development, and deployment.

In Chapter 1, I focus on technology use inside one small manufacturing firm to study when and how worker input is included in the configuration and use of advanced technologies in the workplace. My findings highlight how a change in the vendor’s product development strategy (i.e., from top-down to user-centered) reconfigured role relations between workers, managers, and vendor representatives and subsequently influenced worker voice and involvement in technology design.

In Chapter 2, I directly study the vendor’s design and development processes, and I address why and how vendors may establish a pro-worker focus during development. I advance the concept of technology design ideologies—which I define as developers’ beliefs about the functions and broader purpose of their technologies—and I show how developers used institutional work practices to influence their company’s existing design ideology in ways that made it more centrally concerned with the effects of the technology on machine operators’ jobs.

In Chapter 3, I focus on the vendor’s efforts to develop users’ skills, behaviors, and routines around the technology through the creation and delivery of self-directed online learning tools. I find that the vendor’s training efforts—which were co-produced with the users themselves—did not equally serve all user types and encountered particular barriers when directed towards frontline workers, rather than managers. As a whole, this dissertation contributes to research on employee involvement in workplace technologies, social constructivist theories of technologies and organizing, and information systems research on vendors of digital, intelligent technologies.

“Press ‘1’ to speak to a machine: An examination of the psychological factors influencing preference for interaction with artificially intelligent actors”

Author: Heather Yang (2021)

Committee: John Carroll (chair), Jared Curhan, Renée Gosline, Jackson Lu, Basima Tewfik

Abstract:

What psychological factors influence the preference for interaction with a human versus an artificially intelligent actor? How can these factors be used to increase adoption of novel technologies, and what are their broader societal impacts? In this dissertation, I answer these questions through two streams of research: Firstly, by examining what kinds of people seek out algorithmic advice; and secondly, how the implicit application of social information to algorithmic agents impacts their interpretability and evaluation.

In Chapter 1, I examine the individual level differences of users of artificially intelligent advisors. Across eleven studies, users’ cognitive style predicted advice-seeking behavior from algorithmic advisors, even after controlling for a host of consequential factors, such as prior experience with artificial intelligence, comfort with technology, social anxiety, and educational background. Building on the Dual Process theory literature, I show that increased cognitive reflection is related to increased perceptions of accuracy for algorithmic (vs. human) advisors, with accuracy perceptions mediating the relationship between cognitive style and advisor preference. I find that individuals who rely on their intuition perceive algorithmic advisors as being less accurate than human advisors, in comparison to their deliberative counterparts who rate algorithmic advisors as more accurate.

In Chapter 2, I investigate how individuals apply social stereotypes to digital voiced assistants (DVAs) and how this facilitates understanding of novel personified devices. Through experimentally pairing participants with fake artificially intelligent voiced agents, I demonstrate that individuals implicitly apply social stereotypes to the agent in the same way as they do to other humans. Consistent with traditional gender stereotypes and in contrast to current academic justifications reliant on the generalized preference for female voices, I find that individuals prefer female (vs. male) voiced artificial intelligent agents when occupying roles that are female-typed, but not male-typed, demonstrating a stereotype congruence effect. I extend this finding to show how gender stereotype congruent features of a novel device facilitate understanding of its capabilities for inexperienced users.

Finally, I discuss the implications of this research for managers, policy makers, developers and users of artificially intelligent agents.

“From Firm Production to Co-Production: The Changing Nature of Professional Work Inside an Incumbent Firm in the Age of Social Media”

Author: Emily Truelove (2019)

Committee: Katherine Kellogg (chair), Wanda Orlikowski, Michael Tushman

Abstract:

Advances in the Web, social media, and digital technologies are changing the nature of professional work inside established organizations—often in ways that involve permeability of once-sealed boundaries, and usually in ways that require a significant reconfiguration of long-held work practices. In this dissertation, I use data collected during a 24-month ethnographic study of an incumbent firm in the advertising industry (“AdCo”) to study this phenomenon. During my study, AdCo continued to do traditional advertising, and it developed a strategic new offering called participatory ads. AdCo sold participatory ads to clients and these ads involved professionals inside the firm coproducing an ad’s content with the audience using social media.

In Chapter 1, I focus on how coproducing ads with the audience created tensions between professional groups inside the firm—specifically, between Creative and Digital department members. Creatives had long viewed coming up with an ad’s “big idea” as their most sacred task, and something they alone could do. However, developing ideas for participatory ads required that they conceive of the audience differently, and

that they work with Digital members, who they had long viewed as a support department, but who now had critical expertise related to generating ideas that could work when doing participatory ads. All Creatives renegotiated their boundary with the audience as they developed ideas, as the literature has described to be important. Yet only some allowed Digital into their sacred space, using what I call sacred reconfiguration practices. Only the Creatives that used these practices were able to develop high quality ideas and receive a client greenlight to launch.

In Chapter 2, I focus on coordination between workgroups inside AdCo and the audience outside in the participatory advertising projects that launched. In participatory ads, audience members were unpaid, not professionally trained, participating for their own entertainment, and generally not even aware that they were part of a larger effort. Therefore, conventional mechanisms for coordinating work, such as drawing on institutionalized roles and rules, were unsuitable. I describe the importance of professionals using what I call inspiring and harmonizing engagement practices in order to motivate the audience to participate, and to do so in ways that are strategically beneficial for the firm.

This dissertation advances research on the changing nature of professional work in the age of the Web and social media, managing boundaries during digital transformation efforts inside established firms, and the production of collective creative work.

“The More the Merrier? Understanding the Effect of Group Size on Collective Intelligence”

Author: Nada Hashmi (2017)

Committee: Thomas Malone (chair), Lotte Bailyn, Anita Williams Woolley

Abstract:

This dissertation explores how group size affects collective intelligence. It is composed of three quantitative studies. The first study explores how time pressure in small groups (size 4) and large groups (size 20) affected collective intelligence. The results showed that the large groups significantly and consistently outperformed the small groups in different time pressure conditions. This led to the second study which explored whether the collaboration tool used in the first study might have provided unexpected benefits for large groups that counteracted any process loss in the large groups. While the results from the second study confirmed that the collaboration tool did indeed significantly improve the collective intelligence score of groups, one surprising result was that this effect occurred, not only in large groups (size 20), but also in small ones (size 4). The final study then set out to explore this surprising result in further detail by including a variety of group sizes (sizes 5, 10, 15, 20, 25, 30, 35 and 40) in both the collaboration conditions. It was hypothesized that by including more group sizes, the study would determine whether a curvilinear (inverted-U) relationship existed. The results not only confirmed the curvilinear (inverted-U) relationship but also suggested an optimal group size of about 30 for groups with the collaboration tool and 25 for groups without the collaboration tool.

“Warriors Versus Experts: Managing Conflict Between Professional Groups in the Provision of Soldier Mental Healthcare in the US Army”

Author: Julia DiBenigno (2016)

Committee: Katherine Kellogg (chair), Lotte Bailyn, Jayakanth Srinivasan, John Van Maanen, Ezra Zuckerman-Sivan

Abstract:

Organizational life is rife with conflict between groups with different interests who pursue different goals. Integrative mechanisms to promote goal alignment do not always work, particularly when conflicts involve professional groups with strong commitments to their professional identities and perspectives. I draw on data from a 30-month comparative ethnographic field study of conflict between US Army commanders privileging their professional group’s goal of fielding a mission-ready unit and mental health providers privileging their professional group’s goal of providing rehabilitative mental healthcare to active-duty soldiers suffering from conditions such as Post Traumatic Stress Disorder. All providers and commanders faced longstanding conflict

related to their professional group differences in goals, identities, and perspectives, and all had access to a host of integrative mechanisms to overcome these differences. Yet, only those associated with two of the four combat brigades on the US Army post featured in this dissertation regularly handled these conflicts by co-constructing integrative solutions that accomplished both professional groups' goals and the organization's overarching goal to have both mentally healthy and mission-ready soldiers.

I find that an organizational structure that enables what I call "anchored personalization" can help different professional groups overcome identity conflict and entrenchment in their home group's perspective to align their goals, without becoming indoctrinated into the other group's perspective from personalized contact with the other group. Anchored personalization resulted from an organizational structure that provided a long-term personal connection with specific members of the other group, while anchoring group members in their home group identity from working surrounded by their fellow group members. Anchored personalization reduced longstanding identity conflict between groups by broadening and expanding each group's professional identity to incorporate elements of the other group's perspective, enabling what I call "anchored perspective-taking." Anchored perspective-taking involved three sub-processes: 1) empathizing with the other group member's perspective, while remaining anchored in one's home group's perspective; 2) using a broadened repertoire of identity displays during intergroup interactions that demonstrate respect for the other group's perspective; and 3) drawing on one's personalized knowledge of and relationship with the other group member to collectively craft novel and customized solutions to conflicts that take both groups' perspectives into account. These anchored perspective-taking practices led to the co-construction of integrative solutions that aligned seemingly incompatible group goals to achieve the organization's superordinate goal.

I contrast the experience of these groups with anchored personalization to those who had either an anchoring in their home group, but no personalization opportunities with the other group, and to those who had opportunities for personalization with the other group, but no anchoring in their home group. I demonstrate how both of these scenarios did not lead to the accomplishment of superordinate goals. Group members who lacked the opportunity for personalized connections with the other group failed to use anchored perspective-taking practices to craft integrative solutions to conflict. Group members who developed personalized connections with the other group without being anchored in their home group's identity were indoctrinated into the other group's perspective. This research contributes to our understanding of managing goal and identity conflict between professional groups in organizations and to our understanding of the dark side of personalization without anchoring.

"Understanding the Conditions of Bias: Essays on Gender Differences in Evaluation Outcomes Across Three Empirical Contexts"

Author: Mabel Lana Botelho Abraham (2015)

Committee: Roberto Fernandez (chair), Susan Silbey, Ray Reagans, Emilio Castilla

Abstract:

This dissertation contributes to our understanding of when and how gender is incorporated into the evaluation of individuals, leading to unequal outcomes for similar men and women. Prior research has shown that because ascriptive characteristics, such as gender, are associated with widely-held performance expectations, evaluators often rely on gender as an indicator of quality, particularly when quality is uncertain or indeterminate. Whereas existing research has importantly documented that gender differences in evaluation outcomes exist, this dissertation shifts the focus to uncovering the conditions under which this is the case as well as the underlying mechanisms driving these observed gender differences. Specifically, the three papers in this dissertation contribute to our understanding of the evaluative mechanisms perpetuating gender inequality by answering the following overarching research question: Under what conditions and how do evaluation processes lead to different outcomes for comparable men and women, particularly when more relevant indicators of quality are available to evaluators? I draw on data from three distinct empirical contexts to examine when and how evaluations of similar men and women vary within social networks, a financial market

setting, and an organization. I pay particular attention to the often levied criticism of gender inequality research, namely failure to adequately account for underlying quality or performance differences. I show that the gender of the evaluatee, or the individual being evaluated, plays a role beyond serving as a proxy for missing quality information and that male and female evaluators incorporate gender differently under certain conditions.