

Toward a Nodal Design: Relational Design Across Scale

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Abstract: This poster presents emergent theorizing about designing for human relationships across scales with sustained attention to historic power relations expressed through and within learning environments. Early development of the premises for a nodal design prioritize honoring difference, working with cultural ways of knowing, remaining clear-eyed about power relations, recognizing representation is necessary but not sufficient, and insisting upon reciprocal and mutual learning across positions available within participatory design methods.

Some methodological premises

To open, I begin with a set of methodological aims expressed as questions I have been pursuing through twenty years of work with youth and families seeking to shape their lived circumstances. What methods can organize us to be fully responsible for the following seven stances?: (1) honor difference, and at times disruption, (2) work with cultural ways of knowing, (3) remain clear-eyed about power relations, (4) recognize our roles in living the Belmont Principles guiding human subjects research—respect for persons, beneficence, and justice, (5) organize for collective *and* individual ethical development, (6) recognize representation as necessary but *not* sufficient, and (7) insist upon reciprocal and mutual learning and change. Let us think broadly about marginalization and its historic reach. Think of people grappling with marginalization and the historic consistency of these conditions, despite shifts in representational evidence over time. Think also of people who live as bystanders, not actively aiming to marginalize others yet not particularly aware or concerned with marginalization as a thread in the collective fabric. Meanwhile, less contentious meritocratic and more contentious supremacist logics operate to normalize, accept, justify, or produce marginalization. And yet, conditions arise—even where, we are often told, they are not supposed to—that draw people out in our fullness and insist the arc of our development, regardless of our relative sociohistorical positions, draws toward mutual contribution and evidence of magnificent possibility. This bit is often denied, rendered exceptional, or remains unremarked, invisible. How can design methods generate sufficient momentum to pull against this current?

Relational design discourses and potentials for mutual development

These questions have led me to review the range of relational design discourses that have constructed much of our field's engagement, and in turn, my engagement with the methodological family of design as conceptually and practically central to inquiry into learning environments in which people's lives and practices are frequently held, guided, neglected, abandoned, and even changed. Emphasis on relational discourse intends to grapple with dynamics of discerning, navigating, and re-organizing mutual power relations while engaging in informed design processes that prioritize exchange among participants as designers. Iterative and user-centered design were among my earliest course-related encounters with design as a student, and they easily allowed me to incorporate my prior experiences of design into my practice. Yet their engagement with power relations can be rendered optional, providing necessary methodological practice but not sufficient to address the persistence of marginalization. Because my lines of inquiry have asked how and when families, youth, and community organizations negotiate participation rights and contradictions (Rosaldo, 1997; Engeström, 2011), engage in advocacy, civic practice, and political development, my design practice has consistently been rooted in ethnographic methods and participant observation as critical means for learning how varied communities construct meaning and negotiate relationships (Hawkins & Pea, 1987; Barab, et al., 2004; Bang & Vossoughi, 2016; Hoadley, 2017). Community organizing projects with youth and families have frequently involved critical pedagogy, participatory action research, and youth participatory action research (Boal, 1974; Freire 1982; Cammarota & Fine, 2008). Yet in varied communities, interest in participating in design as a research process has varied. In these cases, social design experiments that “expand learning” through reorganized community practice (Gutiérrez & Jurow, 2016) and partnerships that allow for mutual appropriation (Downing-Wilson, Lecusay, & Cole, 2011) have effectively aligned theory and practice while honoring community commitments. More recently, Escobar's (2017) ontological design has been instructive in working with complex, multi-vocal and intersecting communities, addressing the possibility of “many worlds existing within a world.” Each of these addresses a core component of relational design discourse that can insist upon reciprocal and mutual learning.

Problems of social pattern maintenance: some sticking points

It is heartening to follow trajectories that have led to the development of participatory design research methods, and yet social pattern maintenance remains a formidable challenge where marginalization is the pattern. Losing sight of core structures of power relations raises some sticking points and conundrums, and three of these are particularly salient for our field. First, a unidirectional focus on people as participants, subjects, or students representing particular groups or social conditions results in a form of persistent “gaze pressure” that undermines the potential for reciprocity and mutual development. This is often fueled by developmental logics that frame who is understood to be “advanced” and who is not in linear and often age-graded fashion. A second is what I refer to here as sticky dualisms. Consider, for instance, the subject positions of designers and makers versus users, consumers, participants, or learners. Particularly with mediators of production, selection, and circulation, these persistent binaries frequently render mechanisms that re-instantiate power relations invisible. A third is the appeal of for-all strategies. While the aims of such framings are admirable and important to develop, the challenge is revealed when this type of framing becomes an easy place to lose sight of historic power relations and to allow for a sort of neutrality to emerge that delays moves necessary to deal with injustice and to deal with equity.

Theorizing nodal design

A key opportunity of the learning sciences is the field’s access to influencing the design of learning environments “at scale.” Yet, when relationships are given full attention alongside a commitment to attendant power relations and ethical opportunities for learning and development, relational scaling and its socio-historical production (Bronfenbrenner, 1977; Neumann, 2009) demand a distinct and carefully theorized framing that can speak in the register of design. I draw on cases from two distinct approaches to university-community partnerships—one addressing democratic practice in daily life and the other addressing participatory access to land, water, and activity—to illustrate a design process I characterize as “nodal design.” Here, I use nodal as a metaphor, referring to the location (node and anti-node) on a material, such as a xylophone, metal pipe, or wooden dowel, where wave vibration has minimal amplitude, allowing a resonant tone (note that I am not a physicist and request a bit of grace for the limits of my description). Nodal design offers form and creates place for practice, yet strives for the lightest touch, the least limit possible on the flow of our lives, hearts, and minds, while reckoning with historic power relations and hegemonic habits and finally, that sustains and adapts relational work as ethical work. Here I have laid out a history of our field’s approach to design-based research while holding close attention to scale as a relational problem that operates beyond infrastructures for broad dissemination. Nodal design prioritizes the free movement and expression of people while addressing historic and persistent needs for repair in our learning environments. It offers tools for theorizing relationships first at the smallest person-to-person interactions and up through community, organizational, and institutional relations.

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