

**EXAMINING THE NORMS THAT DISSUADE  
INNOVATION IN HSR: A PLAIN LANGUAGE  
SUMMARY OF “UNBOUNDING A DISCIPLINE TO  
BIND INNOVATIVE CHANGE: A NEW PARADIGM  
FOR HEALTH SERVICES RESEARCH”**

**Horizon Scan Summary**

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## ABOUT THIS HORIZON SCAN

Institutional norms have helped the field of health services research (HSR) establish itself as an academic discipline, but can make innovation within the field difficult. This paper looks at internal and external forces that could spark innovation within the discipline. The goal is to spark self-examination within the the HSR field by identifying, assessing, and embracing internal and external forces that could change the way HSR is conducted. The paper draws from other disciplines to present three archetypes for how the field of HSR could evolve to help leaders in the field think about the discipline in new ways.

## ABOUT THE PARADIGM PROJECT

The Paradigm Project is a concerted, collaborative effort to increase the relevance, timeliness, quality, and impact of health services research (HSR). Convened by AcademyHealth and funded by the Robert Wood Johnson Foundation, the project is ideating and testing new ways to ensure HSR realizes its full potential to improve health and the delivery of health care. The Paradigm Project is designed to push HSR out of its comfort zone—to ask what works now, what doesn't, and what might work in the future.

Learn more at [www.academyhealth.org/ParadigmProject](http://www.academyhealth.org/ParadigmProject).

## 1. INTRODUCTION

Health services research (HSR), a discipline at the intersection of health and health care, provides important insights for policy and practice. Despite the vast body of research, health systems still struggle to improve quality and access, as well as reduce costs to improve health outcomes. The recent outbreak of the COVID-19 pandemic created a major world-wide disruption providing us with a unique opportunity for reflection. There is no better time for HSR leaders—in education, research, policy, and practice—to embrace critical self-examination of the discipline and map a course to increase the field's relevance in improving both health and health care.

## 2. THE PARADOX OF UNBOUNDING A DISCIPLINE TO BIND INNOVATIVE CHANGE

Characterized by a strong shared culture, disciplines create communities of knowledge.<sup>1,2</sup> Members adopt the norms and practices of a particular scientific community,<sup>3</sup> and the shared culture increases research outputs, such as publications; assists members in achieving credibility; and builds scientific consensus.<sup>4</sup> As disciplines evolve, they preserve scientific consensus by educating future generations about their rules and cultures.<sup>5</sup> Herein lies the paradox. Innovation presupposes development of new knowledge or bringing together knowledge in new ways.<sup>6</sup> In contrast, the overspecialization of disciplinary knowledge, coupled with development of a shared consensus, strongly influences how members of a research discipline think and act, bounding their knowledge.<sup>7,8,9</sup>

AcademyHealth's Paradigm Project aims to encourage HSR leaders to think about and identify opportunities and changes that can improve the relevance, timeliness, quality, and impact of the discipline, by asking:

- What are the inner limitations and external constraints bounding the discipline of HSR?
- What cultural changes can the discipline adopt to foster innovative and relevant knowledge?
- Are the cultural changes the field needs to embrace all of the same magnitude?

## WHY DISCIPLINES CHANGE

- Centripetal Forces: Or external factors like technological advances, and economic, political and social forces that place pressure on a discipline.
- Centrifugal Forces: Or internal factors like dissatisfaction of discipline members vis-à-vis the maturation or entrenchment of institutions that direct a discipline from within.

## HOW DISCIPLINES CAN EVOLVE

- A discipline sustains itself through innovations in response to external forces—e.g., the field of humanities becoming more digitized in response to funding opportunities and the advancement of STEM in the U.S.
- A discipline disrupts itself internally by forming diffusive boundaries enabling transdisciplinarily research across fields—e.g., the creation of the field of systemic musicology developing in departments outside traditional music departments like African American studies, art history, and sociology.
- A discipline can maintain equilibrium by reflecting on outside forces from within—e.g., the traditional field of law sustaining itself by critically assessing the power dynamic and social structures created by reforms so that people's lives are improved in addition to the litigation process.

This brief examines how internal and external forces shape research disciplines and how such forces can “unbound” knowledge and “bind” innovative change in HSR. The goal is to spark self-examination within the HSR field in identifying, assessing, and, ultimately, embracing internal and external forces in ways that increase relevance and meaning. The brief first describes a conceptual framework we developed of discipline change and then provides three archetypes of discipline change and examples within HSR of opportunities to harness external and internal forces to prepare the field for the future.

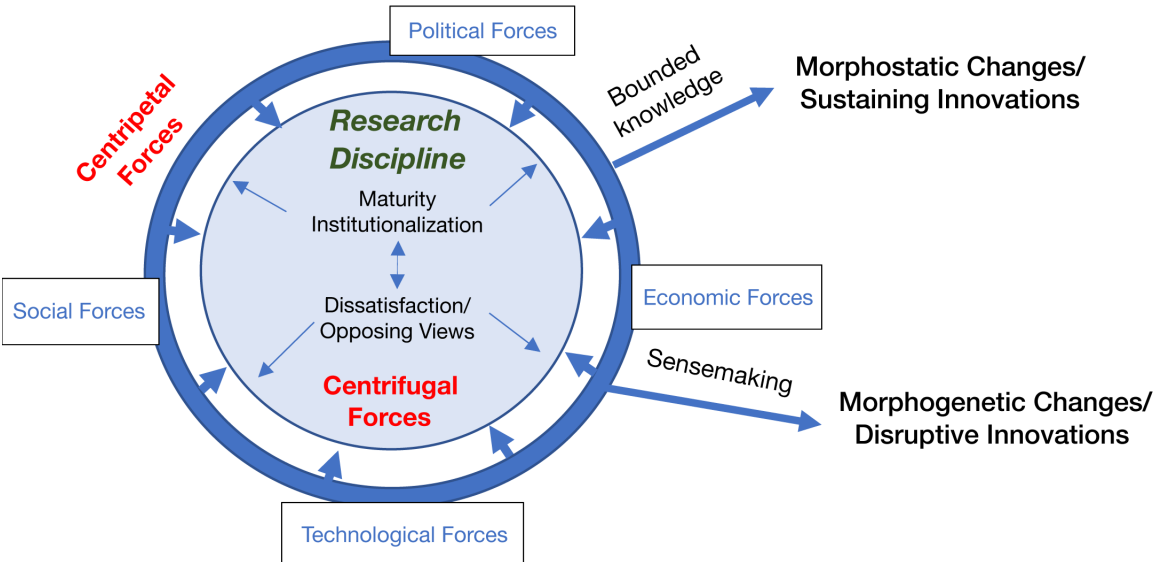
### 3. CONCEPTUAL FRAMEWORK

When examining complex change processes, a conceptual framework based on organizational change theory can help chart and guide analysis of possible courses of discipline change (see Figure 1). We developed a conceptual framework that can serve as a way to:

- look back and analyze and assess changes adopted by various disciplines and communities of knowledge; and
- look forward to identify and assess impending forces of change and the types and magnitude of change processes a discipline may adopt.

Organizational change is shaped by conflicting outer and inner forces, and the framework assesses the effect and interplay of these conflicting forces on stimulating different levels of discipline culture change.<sup>10,11</sup> External forces, such as funding cutbacks, can trigger research disciplines to reactively change.<sup>12,13</sup> Inner forces for change, on the other hand, can result from dissatisfaction with the dominant practices in a given field, for example, stemming from people with diverse backgrounds who find that the values and work in a given discipline do not reflect their life experiences.

FIGURE 1: CONCEPTUAL FRAMEWORK



Disruption theory assesses the interrelation between outer and inner forces through two possible change processes—sustaining or disruptive innovations:

- **Sustaining innovations** occur when a discipline adopts changes that enable the field to remain basically the same despite disrupting outer and/or inner forces. Sustaining innovations improve existing outputs or products, for example, by making the TV picture clearer or mobile phone reception better. These improvements can be incremental advances or even major breakthroughs, but essentially knowledge is bounded as before.
- **Disruptive innovations** occur when outer and/or inner forces push a discipline to observe the world differently, challenge presuppositions, and expand its boundaries.<sup>14</sup> Such disruptions cause the discipline to **make sense** of the change required and build a new identity and shared culture among members, essentially leading to a transformation of its DNA.<sup>15,16,17,18</sup> Disruptive innovations include, for example, the light bulb and personal computers.

The identification of sustaining versus disruptive innovations within a discipline can be illusive. A timely example relates to work-family integration changes, such as tenure-stop clock policies, that aim to increase women’s participation in science, technology, engineering and mathematics (STEM) fields.<sup>19</sup> While many consider such policies as disruptive innovations, the COVID-19 pandemic has highlighted that these practices are, in fact, sustaining innovations. A recent Australian Academy of Sciences report, for example, found that more women in STEM suffered job loss compared to men during the early days of the pandemic and that the return of women to traditional domestic and caregiving roles during the pandemic led to a decline in their publication submission rates while men’s submission rates increased.<sup>20</sup>

### 4. THREE ARCHETYPES OF DISCIPLINE EVOLUTION

Examples of how different disciplines have evolved can help HSR leaders think about the field in new ways. Each archetype illustrates the interplay between external and internal forces and the discipline’s strategy to employ sustaining innovations, disruptive innovations, or a combination:

- Archetype 1 – a discipline’s sustaining innovation in response to external forces: the birth of digital humanities.
- Archetype 2 – a discipline’s disruptive innovation in response to internal forces: the case of systematic musicology.
- Archetype 3 – a discipline employing both sustaining and disruptive innovations aimed at reaching equilibrium: the case of law.

These examples explore the subtleties of how disciplines evolve and have implications for understanding and responding to the many internal and external forces facing HSR and the challenges the Paradigm Project is attempting to address through innovation.



**ARCHETYPE 1: THE RISE OF STEM AND BIRTH OF DIGITAL HUMANITIES—SURVIVING BY CONNECTING WITH THE FASHIONABLE?**

In recent decades, external forces, such as threats to U.S. economic prosperity, advanced STEM and pushed humanities—once considered the foundation of scientific knowledge—to the side. A threatened discipline can respond in one of three ways to ensure survival—introversion, extroversion, or a change in persona. An introverted response leads a discipline to retreat into its shell, fortifying the discipline’s inner community of knowledge, identity, and boundaries. This withdrawal may lead to irrelevance, however, as the discipline loses touch with the everchanging external world. An extroverted response prompts a threatened discipline to form a strategic alliance with a stronger discipline by incorporating its methods and knowledge to increase relevance. A discipline also can adopt a new persona by reconstituting itself within a newer and larger field of study—for example, the rebranding of anthropology within the wider field of cultural studies.<sup>21</sup>

Over the past two decades, there has been a surge of new methods digitizing the humanities. Such fields as linguistics, literature, history, philosophy, archaeology, religion, ethics, and the arts have created new methods of scholarly inquiry, such as text mining and visualization. The development of computational tools, such as algorithmic literary analysis to study style and authorship,<sup>22</sup> enables humanities scholars to conduct research on a scale once unimaginable. Such analytic tools have expanded beyond literary criticism to media and journalism. For example, during the Arab Spring revolution, twitter feeds from Egypt and Tunisia were analyzed to understand the specific media-use patterns and strategies enacted by diverse groups to promote change.<sup>23</sup>

To date, however, it is unclear to what extent digital humanities is in fact a survival strategy of technical support to “real” humanities scholars<sup>24</sup> versus the birth of new disciplinary DNA. According to the conceptual framework, the example of digital humanities illustrates how outer forces caused decline in relevance and led the discipline to adopt survival strategies. While importing various computational techniques helped revitalize the humanities, the process sparked incremental and sustaining innovation rather than disruptive innovation in a mature discipline.<sup>25,26</sup>

**ARCHETYPE 2: THE BIRTH OF TRANSDISCIPLINARY SYSTEMATIC MUSICOLOGY—INNER FORCES UNBOUNDING A DISCIPLINE**

In a constant inner turbulence of creativity, the discipline of musicology is not about making music but rather the study of how music is made. Perceived as a community of knowledge striving to understand creative forces, musicology has been one of the drivers of the discourse of STEM versus STEAM (science, technology, engineering, arts, and mathematics). While the STEM disciplines are perceived as rigid with a predetermined monolithic culture,<sup>27</sup> the addition of music, for example, is seen as a source for encouraging innovation and creativity.

Within musicology exists an ongoing debate between two approaches to studying music: structuralist versus post-structuralist.<sup>28</sup> The structuralist approach looks within the musical piece, analyzing the relationship between the various parts to the whole. With the aim of creating structure in what appears to be chaos, structuralist musicology theorists, for example, spend hours unpacking, framing, and internalizing performances of renowned jazz musicians like Charlie Parker and Thelonious Monk, known for their mad improvisation skills.<sup>27</sup>

Conversely, the post-structuralist approach examines the various influences that led to the creation of the musical piece.<sup>29,30</sup> Within the discipline of musicology, a symphony orchestra—among the earliest organizational forms in society<sup>31</sup>—symbolizes to some extent the inertia of traditional structures. Post-structuralist music scholars do not question orchestral structure but rather ask what influences promote innovation and creativity in such a predetermined setting. They do so by analyzing, for example, how symphony orchestras’ musical programs reflect cultural changes in the musical canon.<sup>32,33,34</sup>

The post-structuralist approach has led to an interesting internal disruptive change process within the subfield of systematic musicology, which aims to address the complexity of music and its aesthetical, perceptual, psychological, and social dimensions. As such, systematic musicology, inherently operates through an interdisciplinary rather than monolithic approach.<sup>35</sup> Over the years, systematic musicology research, such as academic jazz studies, has developed in departments outside traditional music departments, including African American studies, art history, communications, sociology, and business.<sup>36</sup> Rather than competing with other communities of knowledge or retreating into its own shell, systematic musicology applied a disruptive change strategy, forming diffusive boundaries where music serves as the transdisciplinary creative “glue” that binds researchers across fields.<sup>37</sup>

**ARCHETYPE 3: THE INERTIAL REACTION OF LAW—MAINTAINING EQUILIBRIUM THROUGH DISRUPTION**

The discipline of law reacts to external societal forces through internal processes used by the community of knowledge to adapt, tailor, and create new laws to restore societal equilibrium.<sup>38,39</sup> For example, the LGBTQ movement has long battled culturally and politically to change three societal pillars: family, marriage, and work. The U.S. Supreme Court’s June 2020 ruling that the Civil Rights Act of 1964 prohibitions against sex discrimination extend to sexual orientation and gender identity marked a societal evolution. The discourse on LGBTQ rights, within the discipline of law, has been impacted by queer legal theory and sexual citizenship, calling for updating laws and litigation practice and generating new knowledge on how societal norms and structures change the law.<sup>40,41</sup>

Initially, the study of law was an apprenticeship to train future practitioners and focused mainly on parsing cases, discovering axiomatic principles, and applying those principles with rigorous deductive logic so that the scholar could discern specific legal rules as well as the single correct result in any judicial dispute.<sup>42</sup> Over the years, this disciplinary approach drove mostly sustaining innovations of legal reform. For example, reforms aimed at addressing violence against women have included eliminating the requirement that women physically resist perpetrators and shielding women’s sexual history. Such reforms may have improved the litigation process but have not necessarily changed women’s lives.<sup>43</sup>

The tension between practitioners and academics within the discipline of law continued over the years. The rise of critical legal scholars in the 1980s, such as Kimberle Crenshaw and her work on intersectionality of race, class, and gender, paved the way within the discipline for ideological schools of thought focusing on rights, equality, and justice. These schools of thought put forth the paradigm that law is not neutral and instead favors powerful groups within society.<sup>44</sup> Spurring disruptive transformation within law’s community of knowledge, these internal forces drove the transition from practitioners to academics, moving scholarly works from merely describing legal advances, or reforms, to critically assessing the two-sided effect of law and social structures.<sup>42,45</sup>

## 5. THE CASE OF HEALTH SERVICES RESEARCH — ‘THE OLD IS DYING AND THE NEW CANNOT BE BORN’

The examples of humanities, musicology, and law pose interesting lessons for discipline change within HSR. Three examples from HSR can help stimulate awareness and thoughts about possible changes to the field, whether sustaining or disruptive.

### ADOPTING THE FASHIONABLE? PATIENT ENGAGEMENT IN HEALTH SERVICES RESEARCH

HSR, similar to other disciplines, is constantly challenged by external forces calling for change as health care expenditures grow, research funding decreases, and benefits to patients from research outputs suffer from lack of timeliness and relevance. In recent years, efforts to advance patient-centered care and the accompanying concept of patient and other stakeholder engagement in both health care delivery and research have exerted strong external forces on HSR.

The field has seen a surge of research and action around patient engagement, from studying patient’s interaction with the health care system<sup>46</sup> to patients’ active involvement in improving the relevancy of study designs and translation of findings into clinical practice.<sup>47</sup> Patient engagement poses a challenge and cultural change for HSR. If truly embraced, it requires a disruptive change in the division of power and knowledge within the HSR community. Yet, much like digital humanities, HSR may opt for a sustaining strategy that embraces patient engagement and increases relevance, but the discipline’s culture does not change.

Two of the AcademyHealth Paradigm Project design teams are working to create change processes aimed at improving the field’s inclusion of marginalized communities and emphasizing priorities of key stakeholders, including patients, family and caregivers, clinicians, payers, and policymakers. Involving stakeholders requires dynamic structures and processes legitimized by both participants of a discipline and nonparticipants. These processes must be empowering and enabling so that patients and other stakeholders have agency and the ability to shape the methods used for their involvement over time. The Paradigm Project teams need to evaluate whether identified change processes merely sustain the field versus driving deeper disruption by offering patients and other stakeholders a true seat at the table and significant impact on research outputs, such as grants and publications, and clinical practice.<sup>48</sup>

### DIFFUSING CREATIVE BOUNDARIES? MOVING HSR FROM AN INTERDISCIPLINARY SILOED DISCIPLINE.

As music is the glue of systematic musicology, the glue in HSR is the focus on health and the role that health services play in health. Different disciplinary scholars and teams work within HSR, creating internal forces for knowledge production. Yet to what extent are discipline boundaries diffusive, enabling diverse internal forces to work together rather than in opposition?

The Institute of Medicine defined HSR as “a *multidisciplinary field of inquiry, both basic and applied, that examines access to, and the use, costs, quality, delivery, organization, financing, and outcomes of health care services to produce new knowledge about the structure, processes, and effects of health services for individuals and populations.*”<sup>48</sup> Inherent in this definition is the assumption that HSR’s interdisciplinary community of knowledge widens the disciplinary borders of HSR, allowing opportunities for diverse and innovative paradigms. Yet, health care has largely resided in a siloed state. Integration and coordination of care continue to be a great challenges in improving cost, quality and access.<sup>49</sup> The fragmentation of care delivery as well as clinical education, in which health professionals are trained separately, create within HSR sub-disciplinary and siloed communities of knowledge.

Systematic musicology, as demonstrated, moved from bounding creativity to creating diffusive disciplinary borders that enable diverse disciplines to study music together. Applying this analogy to discipline change within HSR would require that the field create transdisciplinary rather than interdisciplinary mechanisms. In interdisciplinary research, scholars of different scientific disciplines apply and integrate existing theoretical frameworks. In transdisciplinary research, however, scholars work jointly to create new conceptual, theoretical, methodological, and translational innovations that integrate and move beyond discipline-specific approaches to address a common problem.<sup>50</sup>

Three of the Paradigm Project design teams are working to identify and foster change mechanisms to promote a transdisciplinary foundation in HSR. For these teams to succeed, mechanisms are required to encourage and support the growth of transdisciplinary scholars. Examples of such mechanisms are creating study sections within granting agencies that promote transdisciplinary research. For example, the National Institutes of Health’s organizational structure of individual institutes makes it a challenge to find a home for research proposals that cross diseases, populations, and disciplines. Such a siloed approach impacts not only funding calls but also the review process. For example, study sections and review panels are often highly specialized, and individual reviewers may favor their own disciplines rather than an innovative transdisciplinary approach addressing complex problems in health and health care.

### INVESTIGATING WHAT MATTERS AND LOOKING WITHIN? ADDRESSING SYSTEMIC RACISM AND MOVING THE NEEDLE ON HEALTH INEQUITIES.

Much like law, within the discipline of HSR, practitioners, academic scholars, and practitioner-academics reside side by side. HSR’s ability to study not only descriptive health care challenges but also the effects of social structures on health is vital.

For over 30 years, HSR has studied health and health care disparities, yet as a discipline it has only marginally moved the needle in effectively reducing disparities. Recent disruptive social events, such as protests of U.S. police brutality and the direct and ripple effects of COVID-19 on minority communities, have spurred a difficult dialogue about how systemic racism is embedded within virtually all elements of society. Of the challenges HSR and other disciplines face, addressing structural racism is one of the most difficult. Successfully confronting structural racism requires HSR to first look within, identifying unconscious or implicit bias at the individual level. Then the field must move to identify, through critical race theory and critical pedagogy, the societal racist systems and structures that reside within HSR.<sup>51</sup> As a discipline, HSR must then translate value-laden concepts, such as racism, social justice, and equity, into everyday practices, moving from a power-over to a power-with strategy in hiring practices, research funding, and peer-reviewed dissemination of scholarly work.

Although the Paradigm Project is addressing some aspects of structural racism, in particular, diversity in the HSR workforce, all teams can apply the lens of equity in their work with a goal of reducing health and health care inequities. Disruptive innovations, such as addressing structural racism in HSR, require an in-depth look at who is sitting at the table and who is not. Merely adopting sustaining innovations, such as those to advance women in STEM, will not address the root problem of racism. Reducing health disparities will require addressing systemic racism, colonialism, and social privilege as part of research and interventions.<sup>52</sup>

Historically, HSR and funding agencies often have been unwilling or unable to tackle these root causes of disparities, citing a litany of arguments such as “out of our scope, not politically possible, too dangerous, too hard, and too much politics, some economic analyses may threaten powerful stakeholders, and look at AHCPR’s near death experience.”<sup>53</sup> Ultimately, only disruptive change in HSR can contribute to transformational advances in health equity.

In closing, thinking about how disciplines evolve can help HSR leaders—in education, research, policy, and practice—make sense of the external and internal forces of change churning in and around the field. The end goal is to “unbound” knowledge and “bind” innovative change in HSR to produce relevant and timely evidence that improves both health and health care.

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