Design Without Discipline

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Introduction

Design, again, finds itself in the midst of a crisis from a number of different perspectives, including professional, cultural, technological, and economic forces. The present crisis, however, is not new. Almost 20 years ago, design's crisis of identity was highlighted in Adam Richardson's paper, "The Death of the Designer," in which he reminded us that design's crisis had been around since the days of the Italian Radical Design Movement of the 1960s.[1] In addition, at about the same time, Dan Friedman, in his book *Radical Modernism*, argued from a historical perspective that design is in crisis and is searching for a new sense of balance and vision in a period of historic transformation.[2] Throughout the book, Friedman emphasizes the responsibility of designers to avoid overspecialization and to see their work as an important creative aspect of a larger cultural context.

That design is in crisis from a disciplinary perspective has been suggested more recently, as well. Of course, this state of crisis is not unique to design—most disciplines are in crisis at some point in their development. Nevertheless, recent evidence of design's methodological reinvention indeed suggests that design as a discipline is "in crisis."[3] The robust debates around research methods and design, articulating a number of territorial engagements, appear to have missed the general understanding in disciplinary scholarship that such debates about research methods are already an indication of a discipline "in crisis."[4] A similar point is made by Nigel Cross when he reminds us of the concerns that arise every 40 years or so in design research.[5] Cross describes how, in the 1920s, the search focused on developing scientific design products; then in the 1960s, the concern shifted to finding a scientific design process. According to Cross's chronological calculations, then, that we are now experiencing another crisis about the development and use of appropriate research methods in design is no coincidence. Richardson's essay proclaimed 20 years ago that design "…is in a crisis of identity, purpose, responsibility, and

1 Adam Richardson, "The Death of the Designer," *Design Issues* 9, no. 2 (1993): 34–43.

2 Dan Friedman, *Radical Modernism* (New Haven: Yale University Press, 1994).

3 Joyce S. R. Yee and Craig Bremner, "Methodological Bricolage–What Does It Tell Us About Design?" in *Proceedings of the Doctoral Education in Design Conference* (Hong Kong: Hong Kong Polytechnic University, 2011), 181–90.

4 John Law and John Urry, "Enacting the Social," *Economy and Society* 33, no. 3 (2004): 390–410.

5 Nigel Cross, "Designerly Ways of Knowing: Design Discipline Versus Design Science," *Design Issues* 17, no. 3 (2001): 49.

meaning…" and that "…the viability of the profession as it is currently practiced needs to be seriously considered, its boundaries examined, and its values reconsidered."[6] This paper seeks to explore design's crisis as it wrangles with its disciplinary boundaries.

The Serious Profession of Design

We are told by Donald A. Norman in the Epilogue to his book, *Emotional Design: Why We Love (or Hate) Everyday Things,* that we are all designers,[7] yet arguably one of the greatest designers of all time, Dieter Rams, states that he is "…troubled by the devaluing of the word design" and that he finds himself "…now being somewhat embarrassed to be called a designer."[8] To combat the devalued meaning, he suggests treating the discipline of design seriously, understanding that design "is not simply an adjective to place in front of a product's name to somehow artificially enhance its value."[9]

As a signatory to the "The Munich Design Charter," published in *Design Issues* in 1991, Rams knows design's responsibilities in all parts of contemporary life.[10] This charter states that design must concern itself with "…economy as well as ecology, with traffic and communication, with products and services, with technology and innovation, with culture and civilization, with sociological, psychological, medical, physical, environmental, and political issues, and with all forms of social organization."[11] Now, 20 years later, Rams needs to remind us again "…that design is a serious profession, and for our future welfare we need to take the profession of design seriously…."[12]

If we follow Donald Norman and others' claims that "…we are all designers," we could cite evidence for the growing phenomenon of "amateur designers;"[13] but more pressing on the discipline has been the contention that design is everything—from the design of objects that we use on a daily basis, to the design of cities, landscapes, nations, cultures, bodies, genes, and the way we produce food, to the way we travel, build cars, and clone sheep.[14] In fact, long before the emergence of the biotech and financial services economies, Ernesto Rogers succinctly described design's reach as "*…dalla cucchiaio alla citta* [trans: from the spoon to the city]."[15] Even before everything became design and Norman declared that we are all designers, Lazlo Maholy-Nagy structured his pedagogy at the Bauhaus around the general notion that "…everybody is talented;"[16] Joseph Beuys later enlarged the scope of Maholy-Nagy's statement when he professed that "everyone is an artist."[17] All these generous assertions illustrate what Thierry de Duve describes as the shift from the academic model to the modern model of art education, in which talent is replaced with creativity.[18] Talent resided in the few and required skill,

6 Adam Richardson, "The Death of the Designer," *Design Issues* 9, no. 2 (1993): 34.

7 Donald Norman, *Emotional Design: Why We Love (or Hate) Everyday Things* (New York: Basic Books, 2004), 213.

8 Matt Warman, "Dieter Rams: Apple has Achieved Something I Never Did," *The Telegraph*, June 7, 2011, www.telegraph.co.uk/technology/apple/8555503/Dieter-Rams-Apple-has-achieved-something-I-never-did.html (accessed March 13, 2012).

9 Ibid.

10 Dieter Rams et al., "The Munich Design Charter," *Design Issues* 8, no. 1 (1991): 74–77.

11 Ibid., 75

12 Warman, "Dieter Rams," www.telegraph.co.uk/technology/apple/8555503/Dieter-Rams-Apple-has-achieved-something-I-never-did.html (accessed April 11, 2012).

13 Norman, *Emotional Design: Why We Love (or Hate) Everyday Things,* 225–26.

14 Bruno Latour, "A Cautious Prometheus? A Few Steps Towards a Philosophy of Design (With Special Attention to Peter Sloterdijk)" *Keynote Lecture for the Networks of Design meeting of the Design History Society, Falmouth, Cornwall, 3rd September 2008, Sciences-Po* (2008).

15 Deyan Sudjic, *The Language of Things: Understanding the World of Desirable Objects* (New York: W. W. Norton, 2009), 34.

16 Victor Margolin and Richard Buchanan, *The Idea of Design* (Cambridge, MA: MIT Press, 1996), 38.

17 Caroline Tisdall, Joseph Beuys (London: Thames & Hudson), 7.

18 Thierry de Duve, "When Form Has Become Attitude—And Beyond" in *The Artist and the Academy: Issues in Fine Art Education and the Wider Cultural Context,* ed. Stephen Foster and Nicholas deVille (Southampton: John Hansard Gallery, 1994),19–31.

whereas creativity was universal and just required a medium for its expression. Superseding the modern in de Duve's critique was the postmodern, where attitude replaced creativity and required a "practice" for its form. Nearly 20 years later, we are just playing catch-up by imagining that everyone can practice design.

Rams laments the devaluing of the word "design" because the practice of design is serious. Ettore Sottsass warned long ago that design has deep and durable ethical and political dimensions and requires knowledge and consideration of our relationship with each other and the world we are changing (our anthropological condition) because, while the effect of design can be short-lived, it can also last a very long time.[19] Being reminded about the seriousness of design comes at a time when the relationship between production and the project of design has been changed by digital technology. Instead of projecting "what-might-become," the digital is producing the design of an "other" world where the project is to archive "what-was." At this time, in these changed conditions, we find that the discipline of design is dissolving.

The Dissolving of the (Design) Discipline(s)

The boundaries of what were once recognized as discrete design disciplines, such as product, graphic, textile, and fashion design, have been ruptured and continue to dissolve.[20] Key among these changes is the realization that an indeterminacy of professional boundaries now exists, and fluid patterns of employment within and between traditional design disciplines is commonplace (see Figure 1).

The Rupturing and Blurring of the Design Disciplines

Moreover, many modern-day design pursuits, such as the design of domestic products like audio equipment, communication devices,

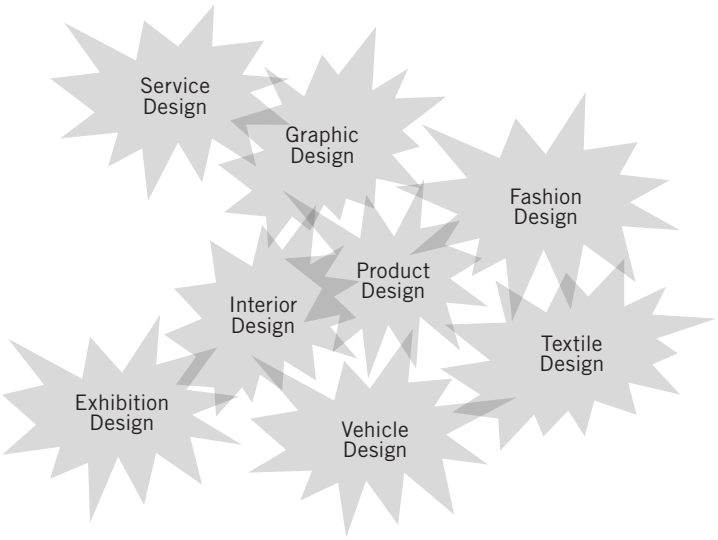


Figure 1

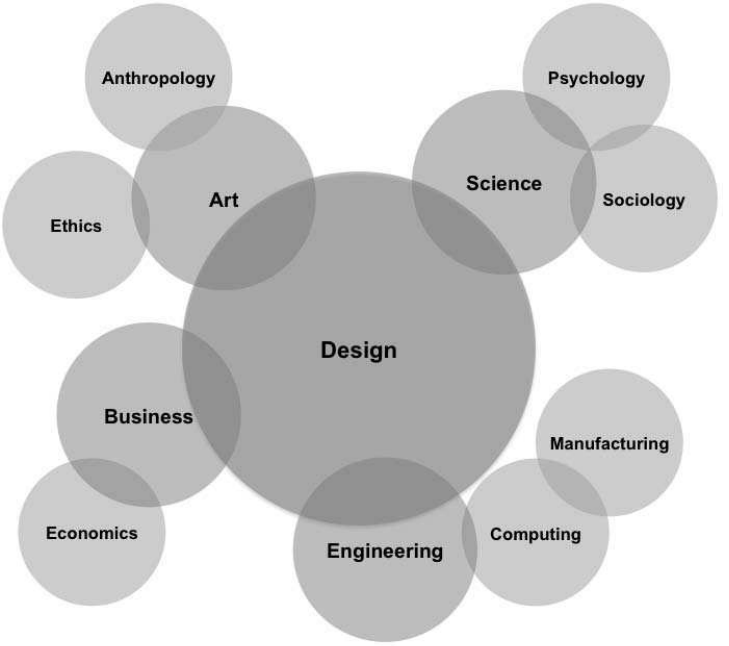
The Rupturing and Blurring of the Design Disciplines.

19 Ettore Sottsass, "Conferenza al Metropolitan Museum 1987," in *Ettore Sottsass: Scritti 1946-2001,* ed. Milco Carboni and Barbara Radice (Milan: Neri Pozzi Editore, 2002), 327–45.

20 Paul A. Rodgers, "Design Now," in *Perimeters, Boundaries and Borders,* ed. John Marshall, (Manchester: Fast-UK Publishers, 2008), 8–11.

Figure 2

Design as a Central Component in Contemporary Design.



and electronic products, require a core of designerly activity supported by other subject specialist areas, such as engineering, anthropology, business, and other areas of expertise (see Figure 2).

Design as a Central Component in Contemporary Design Practice

A number of possible reasons exist to explain the crisis and fragmentation among conventional design disciplines, including:

- *The crisis of professionalism.* The design world today is a challenging and dynamic arena where professional disciplinary boundaries are continually blurring. Growing evidence suggests that design is in the middle of a great transformation, inasmuch as the market-driven years of the 1980s and 1990s have given way to a more people-centered era. Thus, today we experience and inhabit a situation where a blurring of traditional design domains exists and a new capacity for collaboration has encouraged new types of design practice.[21] Atkinson believes this change is not so much a crisis for design, but a crisis for the design profession: "Post-industrial manufacturing necessitates a new kind of designing that has the potential to create a different role for the designer."[22]
- *The crisis of the economy.* Financial and royalty patterns in design are in crisis. McGuirk's recent exposé on the fiftieth anniversary of the Milan Furniture Fair revealed that the vast majority of the designers exhibiting there are barely able to afford to pay their own rent. More than 2,700 furniture leading brand manufacturers exhibited

21 Christopher Hight and Chris Perry, "Collective Intelligence in Design," *Architectural Design* 76, no. 5 (2006): 5–9.

22 Paul Atkinson, "Boundaries? What Boundaries? The Crisis of Design in a Post-Professional Era," in *Proceedings of the 8th European Academy of Design Conference* (Aberdeen: The Robert Gordon University, 2009), 34.

their work at the Salone Internazionale del Mobile, Milano in April 2011, where many of the lamps and chairs are prototypes produced by designers for free, in the hope they will make their money back in royalties. As McGuirk discovered, however, "Only the lucky few ever do. I spoke to one young designer who has five items in production with a respected Italian manufacturer—no small achievement. 'My royalty check last year came to 600 Euros,' he said. [That's] half a month's rent."[23] This downgrade of the financial stock of designers coincides with the "financialization" of the global economy, which has turned all exchanges into a derivative, a form of insurance against change. For a profession predicated on change, this development is potentially terminal.

- *The crisis of technology.* Explosive developments in information and computing technologies, encouraged by the enhancement in telecommunication technologies, new interconnections, and new configurations of knowledge, have materialized and presented new opportunities for creative practice.[24] Hight and Perry propose a reformulation of practices around networked communication infrastructures as conduits for new power.[25] The significant developments in information and computing technologies have created processes and procedures that enable individuals to engage in a form of digital design and production that calls into question their familiar relationship with consumer products.

As a result of these crises of professionalism, the economy, and technology we can say today that design is characterized by fluid, evolving patterns of practice that regularly traverse, transcend, and transfigure disciplinary and conceptual boundaries. This mutability means that design research, education, and practice are continually evolving and "…new hybrids of design are emerging…; they're a mixture of artists, engineers, designers, thinkers."[26]

This paper posits that the terrain of design continues to shift and extend well beyond the boundaries of the (single) discipline. Design now encompasses multiple disciplinary perspectives (i.e., it is characterized by multidisciplinarity) and entails cross-disciplinary pursuits. In addition, interdisciplinarity arises where several disciplines help create unified, sustained and substantial outcomes, even to the degree that a new disciplinary endeavor could develop. It has gone beyond transdisciplinarity, toward a disciplinary condition in which globalization and the proliferation of the digital result in connections that are no longer "amid"

23 Justin McGuirk, "Designs for Life Won't Make You a Living," *The Guardian,* April 18, 2011.

24 Michael Gibbons, Camille Limoges, Helga Nowotny, Simon Schwartzmann, Peter Scott, and Martin Trow, *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies* (London: Sage Publications,1994).

25 Hight and Perry, "Collective Intelligence in Design," 5–9.

26 Daniel West, "A New Generation," ICON 43 (2007): 56–64.

disciplines and cannot be measured "across" them, nor even can be seen as encompassing a "whole," united system. In fact, the digital has generated an "other" dimension so that we might now need to consider "alter-disciplinarity" or "undisciplinarity" as the most effective approach for the future of design.

John Chris Jones in 1998 hinted at an "alter-disciplinary" or "undisciplinary" approach to research in design when he stated that the nature of a PhD qualification for designers should include "[a] measure of ability to integrate imagination and reason, technology and art, and to make noticeable improvements to the quality of industrial life and its products. To successfully integrate art and science—as art/science—a new discipline, if you want to give it a name. Difficult!"[27]

For design to find itself without discipline has been precipitated by the prescriptive manner of digital's total disrespect for the disciplines; as we demonstrate, this disregard has resulted in the dissolution of the disciplines. Coupled with design's poor historiography, we argue that design now finds itself in a position of not knowing what to project.[28]

Disciplinarity

Debates around disciplinarity are not new. Many authors have investigated a variety of disciplinary perspectives across a wide range of design activities, including architecture and engineering design.[29] An earlier paper by Dykes, Rodgers, and Smyth develops a new disciplinary framework for emerging forms of design practice.[30] One aim of this new disciplinary framework was to better facilitate the location and delineation of activities and outputs in emerging types of design practice, research, and education.

The first international conference for interdisciplinary studies was held in 1970. Here, Erich Jantsch presented a set of hierarchical terms to describe forms of collaboration that involve alternative disciplines.[31] This framework is cited several times in key texts concerning knowledge production across disciplines, and Jantsch is most commonly associated with coining the currently popular term, transdisciplinary, which emerged during the conference.[32] Jantsch in his framework was intent on providing specific characteristics that nuance the disciplinary terms, thus making explicit the form of cooperation in question.[33] The hierarchy begins with "multidisciplinary," the simplest form of work proceeding from the single discipline, and then continues with pluridisciplinary, crossdisciplinary, interdisciplinary, and transdisciplinary. Each term relates to variations in the structure and complexity of group work across disciplines in a hierarchical fashion.[34]

The terms are commonly used outside this framework. For example, "interdisciplinary" is often used in a non-specific manner to refer to general collaboration across disciplines, and

27 John Chris Jones, "PhD Research in Design," *Design Studies* 19, no. 1 (1998): 5.

28 Clive Dilnot, "Some Futures for Design History?" *Journal of Design History* 22, no. 4 (2009): 392.

29 For architecture, see Jane Rendell, "Architectural Research and Disciplinarity," *Architectural Research Quarterly* 8, no. 4 (2004): 141–47; for engineering, see Tetsuo Tomiyama, Valentina D'Amelio, Jill Urbanic, and Waguih H. ElMaraghy, "Complexity of Multi-Disciplinary Design," *CIRP Annals-Manufacturing Technology* 56, no. 1 (2007): 185–88.

30 Thomas Dykes, Paul A. Rodgers, and Michael Smyth, "Towards a New Disciplinary Framework for Contemporary Creative Design Practice," *CoDesign* 5, no. 2 (2009): 99–116.

31 Julie Thompson Klein, "Integration, Evaluation, and Disciplinarity," in *Transdisciplinarity: Recreating Integrated Knowledge,* ed. Margaret A. Somerville and David J. Rapport (Oxford: EOLSS Publishers Co. Ltd, 2000), 49–59.

32 Julie Thompson Klein, "Notes Toward a Social Epistemology of Transdisciplinarity," *Bulletin Interactif du Centre International de Recherches et Etudes* 12 (February 1998), http://perso.club-internet.fr/nicol/ciret/bulletin/b12/b12c2.htm (accessed March13, 2012).

33 Erich Jantsch, "Towards Interdisciplinarity and Transdisciplinarity in Education and Innovation" in *Interdisciplinarity: Problems of Teaching and Research: Proceedings of Seminar on Interdisciplinarity in Universities,* ed. G. Berger, A. Briggs, and G. Michaud (Paris: Organization for Economic Co-operation and Development, 1972), 97–121.

34 Zachary Stein, "Modeling the Demands of Interdisciplinarity: Toward a Framework for Evaluating Interdisciplinary Endeavors," *Integral Review* 4 (2007).

crossdisciplinary is often used in adjectival form to describe movement between disciplines.[35] Because of their imprecise use, the terms are often confused and not solidly defined in the literature. Since Jantz's construction of the original disciplinary hierarchy, many other scholars have tried to distinguish between the terms, and as a result, a variety of different interpretations have developed across different disciplines.[36]

Further structural considerations arise in looking at what has happened to the integrity of the disciplines. The first is that the critique of interdisciplinarity and its other fragmentary forms is impossible to conduct from within a disciplinary perspective. Whatever doubts we might have about what has become of the discipline of design, we have to be aware of the fact that disciplines are designed, variously, to perpetuate and domesticate doubt as healthy skepticism, to produce a sense of belonging and submission to a set of regularized practices, and to create a space where expertise is internally unstable.[37] Thus, design should be aware that it has to use discrete tactics to analyze its blurring disciplinarity.

Stanley Fish argues that "…being interdisciplinary is so very hard to do…" on the basis that, despite having a historical core that cannot be ignored, disciplines are not natural, and their identity is conferred by relation to other disciplines, making it impossible for an authentic critique.[38] However, 20 years later in the ongoing debate around the disciplines, Mitchell responds to Fish, claiming instead that interdisciplinarity "…is in fact all too easy." Mitchell bases his negation on a taxonomy of three different kinds of interdisciplinarity: "…top-down (conceptually synthesized), bottom-up (socially motivated), and indisciplinarity (anarchist) or what he now calls lateral interdisciplinarity…."[39] The first looks to frame an overarching system in which all disciplines relate; the second responds to emergencies and upheavals in disciplines; and the last is a rupture in the continuity of the regularizing practices of disciplines (i.e., the disciplines disciplining the disciplines, or self-discipline). In this paper, we argue that the blurred disciplines cannot exist with the disciplines, so when design now finds itself without discipline, we need to find what *does* exist.

With this understanding, Stein's hypothetical framework of individual competencies can be refined. Table 1, in the next section, uses Stein's terms, "disciplinary," "multidisciplinary," "crossdisciplinary," "interdisciplinary," and "transdisciplinary," and adds to them "pluridisciplinary," "metadisciplinary," "alterdisciplinary," and "undisciplinary" for a more developed perspective on the notion of what has become of disciplinarity in design.

35 Rudolf Kötter and Philip W. Balsiger, "Interdisciplinarity and Transdisciplinarity: A Constant Challenge to the Sciences," *Issues in Integrative Studies* 17 (1999): 87–120.

36 Michael Gibbons, Camille Limoges, Helga Nowotny, Simon Schwartzmann, Peter Scott, and Martin Trow, *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies* (London: Sage Publications, 1994).

37 Bill Brown, "Counting (Art and Discipline)," *Critical Inquiry* 35, no. 4 (2009): 1032–53; James Chandler, "Introduction: Doctrines, Disciplines, Discourses, Departments," *Critical Inquiry* 35, no.4 (2009): 729–46; and Robert Post, "Debating Disciplinarity," *Critical Inquiry* 35, no. 4 (2009): 749–70, respectively.

38 Stanley Fish, "Being Interdisciplinary Is So Very Hard to Do," *Profession* 89 (1989): 15–22.

39 William J. T. Mitchell, "Art, Fate, and the Disciplines: Some Indicators," *Critical Inquiry* 35, no. 4 (2009): 1023–31, 1026.

Design Losing Its Discipline

The preceding section has illustrated briefly the disciplinary dissolve of design and the relational response of the disciplines. Given that the global problems of the twenty-first century are increasingly complex and interdependent, and that they are not isolated to particular sectors or disciplines, the possibility exists that design might need to be "undisciplined" in its nature (Mitchell's indisciplinarity). Moreover, there might even be a need for the designer to be "irresponsible" because we need more playful and habitable worlds that the old forms of production are ill-equipped to produce.[40] Moving toward an "undisciplined" design in an age of what we have labeled in a recent paper "alterplinarity" requires an epistemological shift.[41] This shift will in turn offer us new ways of fixing the problems the old disciplinary and extra-disciplinary practices created in the first place. We can chart these changes as shown in Table 1.

40 John Marshall and Julian Bleecker, "Undisciplinarity," in *Digital Blur: Creative Practice at the Boundaries of Architecture, Design and Art,* ed. Paul Rodgers and Michael Smyth (Oxon: Libri Publishers, 2010), 216–23.

41 Paul A. Rodgers and Craig Bremner, "Alterplinarity: The Undisciplined Doctorate and the Irresponsible Candidate," in *Proceedings of the Doctoral Education in Design Conference* (Hong Kong: Hong Kong Polytechnic University, 2011), 27–34.

Table 1 *Similarities and Differences of the Disciplinary Dissolve*

Inquiry	Character of the Designer	Character of the Discipline
Disciplinarity	Individuals demonstrate understanding of one set of conceptions and one methodological approach. They are able to generate unique questions and contribute new research in this field.	An understanding is demonstrated of one set of conceptions and one methodological approach from field of practice. Able to tolerate questions and contribute new designs in this field only.
Multidisciplinarity	Individuals demonstrate disciplinary competence and understand that their endeavors must be related to the endeavors of others in surrounding disciplines. They therefore come to know and use some concepts used in these disciplines.	An understanding is demonstrated of disciplinary difference and shows ability to learn from other disciplines.
Crossdisciplinarity	Individuals demonstrate disciplinary competence and know how concepts from other disciplines relate to their own, having mastered some of those concepts. They are able to constructively communicate with those from other disciplines.	An understanding is demonstrated of disciplinary difference and can follow problem-focus of other disciplines.
Interdisciplinarity	Individuals demonstrate at least two disciplinary competences. One is primary, yet they are able to use the concepts and methodologies of another discipline well enough to contribute to its questions and findings. New understandings of the primary discipline result.	An understanding is demonstrated of at least two disciplinary competencies. One is primary, yet it is able to employ the concepts and methodologies of another discipline. Strengthens understanding of the primary discipline.
Transdisciplinarity	Individuals demonstrate at least two disciplinary competences, neither of which is primary. They work in and contribute to both and generate unique conceptions and artifacts as a result of an emergent transdisciplinary perspective. They are able to communicate with individuals from a variety of disciplines in a synoptic manner.	An understanding is demonstrated of at least two disciplinary competencies, neither of which is primary. Results in a trans-methodological perspective. Abstracts disciplines to bridge new problems.

Table 1 *Similarities and Differences of the Disciplinary Dissolve (continued)*

Inquiry	Character of the Designer	Character of the Discipline
Pluridisciplinarity	This problem-solving mode combines disciplines that are already related, such as design and engineering. Some of the various domains in design itself involve pluridisciplinarity.[42]	An understanding is demonstrated of a combination of disciplines that are already related in the various domains within design itself.
Metadisciplinarity	This mode connects history/theory and practice so as to overcome specialization; it seeks to develop an overarching framework that differs from disciplinarity in that it does not address single problems.	An understanding is demonstrated that shows an effort to overcome disciplinarity by using methods to construct overarching frameworks to connect practices and their histories to new problems.
Alterdisciplinarity	Globalization and the proliferation of the digital results in connections that are no longer "amid" systems, cannot be measured "across systems, and do not encompass a "whole" system. Instead, the digital has generated an "other" dimension so that we might now need to consider "alter-disciplinarity."[43]	An understanding is demonstrated that shows an ability to make connections that generate new methods to identify "other" dimensions of design activity and thought.
Undisciplinarity	Practice shifts from being "discipline-based" to "issue- or project-based."[44] "Undisciplined" research straddles the ground and relationships between different idioms of distinct disciplinary practices. Here a multitude of disciplines "engage in a pile-up of jumbled ideas and perspectives. Undisciplinarity is as much a way of doing work as it is a departure from ways of doing work."[45] It is an approach to creating and circulating culture that can go its own way without worrying about what histories-of-disciplines say is "proper" work. In other words, it is "undisciplined."	An understanding is demonstrated that purposely blurs distinctions and has shifted from being "discipline-based" to "issue- or project-based;" an ability to mash together jumbled ideas and methods from a number of different, distinct disciplinary practices that can be brought together to create new unexpected ways of working and new projects. Displays an "anything goes" mindset that is not inhibited by well-confirmed theories or established working practices.[46]

Conclusion

In Nicolas Bourriaud's altermodernity manifesto, he states that "[t]he times seem propitious for the recomposition of a modernity in the present, reconfigured according to the specific context within which we live—crucially in the age of globalization—understood in its economic, political and cultural aspects: an altermodernity."[47] In a similar vein, we argue for an "alterplinarity:" "an other" disciplinarity in which design ("artist" for Bourriaud)…

> becomes "homo viator," the prototype of the contemporary traveller whose passage through signs and formats refers to a contemporary experience of mobility, travel and transpassing. This evolution can be seen in the way works are made: A new type of form is appearing, the journey-form, made of lines drawn both in space and time, materializing trajectories rather than destinations. The form of the work expresses a course, a wandering, rather than a fixed space-time.[48]

This paper argues that the boundaries of the historic disciplines of design have been superseded by a boundless space/time we call "alterplinarity." The crises of professionalism in design, global

42 Joseph J. Kockelmans, "Why Interdisciplinarity?" in *Interdisciplinarity and Higher Education,* ed. Joseph J. Kockelmans (University Park, PA: Pennsylvania State University Press, 1979).

43 Nicolas Bourriaud, Altermodern Manifesto: "Postmodernism is Dead," 2009, www.tate.org.uk/britain/exhibitions/altermodern/manifesto.shtm (accessed March 15, 2012).

44 Stephen Heppell, *RSA Lectures: Stephen Heppell-Learning 2016,* 2006, www.eyfsonline.org/index.php/primaryvideos/viewvideo/7297/headteacher/stephen-heppell-learning-2016 (accessed March 15, 2012).

45 Marshall and Bleecker, "Undisciplinarity," 219.

46 Paul Feyerabend, *Against Method,* 4th ed. (London: Verso, 2010).

financialization, and the rapid adoption of digital technologies have all modified the models of design thought and action. As a consequence, the traditional design disciplines need to transform themselves, moving from a convention domesticated by practice to a responsive reformulation of practices revolving around networked communication infrastructures—infrastructures that are yet to be disciplined and that serve as conduits for new power—power, to re-organize space and re-regulate time to do things that respond/react to the crises we identify in this paper.

Blurring the disciplines is good. It offers tremendous possibilities in the hands of anyone with a disciplinary platform of knowledge and skill, but bad in the hands of all others; in the wrong hands, it spawns new idioms and reinforces disciplined knowledge. In this paper, we have argued that design now starts from a globalized state of culture. If it is to retain some characteristics of a discipline, then it should re-evaluate its history. The digital offers new territories; the discipline of design has to be stable enough in those territories to offset the threats of uniformity and mass culture/consumption, exploring the bonds that text and image, time and space weave between themselves as it responds to a new globalized perception.

While the universality of disciplinarity ceases to make design innovative, powerful, or valuable, it nevertheless still contributes to the alterdisciplinary condition as design navigates a new universalism based on translations, subtitling, and generalized dubbing. A well-structured discipline, refusing to follow trends that become outdated after a short time, reflects instead a profound evolution in our vision of the world and our way of inhabiting it. However, as we have presented it, disciplinarity now makes this structure inconsistent and arbitrary. Thoroughness and accuracy demonstrate respect toward the language of the modern project; in contrast, alterdisciplinarity translates and transcodes information from one format to another and wanders in geography, as well as in history. The digital has made it possible that our universe has become a territory all dimensions of which may be travelled both in time and space.

As the design disciplines have fragmented, so too have the responsibilities of design. We propose that, from the domesticated form shaped by practice, the discipline can be both undisciplined and responsible, and disciplined and irresponsible. By following the tracks across the landscape of the transfigured disciplines, we have demonstrated that the design imaginary has been "stripped of its center," casting design in a new role of showing us the way through discipline.[49]

47 Nicolas Bourriaud, Altermodern Manifesto: "Postmodernism is Dead," 2009, www.tate.org.uk/britain/exhibitions/altermodern/manifesto.shtm (accessed March 15, 2012).

48 Ibid.

49 Ibid.