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Design, the Language of Innovation: A Review of the Design Studies Literature

Abstract There is a vast body of research exploring the myriad ways design can contribute to business success. For example, businesses seeing to generate new products, services, processes, models, and strategies as part of their efforts to innovate often turn to design for support and leverage. But how clearly have scholars defined the relationship between design and innovation? Is it even possible to explain the connection between the two? In this article, we investigate whether the design literature published over the past thirty years contains an answer to these questions. We organize our findings into clusters describing the key roles that design activity plays in the innovation process, how designers personally play a part, and the internal and external factors that contribute to design/innovation associations. We also introduce the notion that design language — be it visual, methodological, or procedural — has become not only an organizing principle that supports innovative initiatives, it has become the language of innovation itself.

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Introduction: Why This Review?

For decades – in the case of the UK, since the formation of the Design Industries Association in 1915 – industry has been hearing about the value of good design and good designers. Many scholars have investigated and recognized the role that design and designers play in new product, service, and value creation, and ulti-mately, in business success.[1]

Innovation – defined as a process and an outcome[2] – has been even more widely hailed as a factor contributing to ongoing business success. It has been the subject of a variety of research studies,[3] and a growing number of these are paying particular attention to the connection between design, innovation, and business performance.[4]

Innovation researchers have tended to focus on particular domains, such as public policy or financial performance,[5] or on certain specific types of innovation, including technological, radical, or design-driven.[6] However, rarely do authors indi-cate precisely how design specifically contributes to innovation, or indeed whether that relationship can be precisely defined. In this article, we investigate whether the design studies literature contains answers to those questions.

This task is not without its challenges, given how liberally the words "design" and "innovation" are used throughout the literature. In order to build a compre-hensive yet focused understanding of the contribution and value design can create for innovation in business, we undertook a review of the relationship between design and innovation reported in design studies literature during the last thirty years. Our review includes research examining the relationship between design, innovation, and business success, studies focusing on the roles played by design in the innovation process and the results it produces, and on the factors contributing to notions of the link between design and innovation more generally.

A larger project, called "Design Values: The role of design in innovation" – funded by the Arts and Humanities Research Council (AHRC) – determined the scope of the present research. One aim of that project was to understand design disciplines' perspectives on design and innovation, and so we limited our review to studies looking at innovation through the lens of design exclusively. Our main goal with this review was to establish how design academics have attempted to understand and portray the design/innovation connection over the last thirty years. We acknowledge that there are other studies in the domains of engineering, man-agement, and business that have dealt with this same relationship. However as that literature addresses the relationship from those points of view, we have chosen not to include it. This review presents the contributions design academics and practi-tioners have made towards answering an open question regarding the value design offers to innovation processes and outcomes.

We present the results of our review in three parts. The first describes the methodology we followed and the initial findings we drew from the literature. The second presents our analysis of the most relevant studies. The third discusses an interpretive mapping of our findings, and includes proposals regarding areas for future research.

Research Methodology

To carry out this review, we followed a two-part research methodology, which we detail here.

Part One

The first stage of our research involved a protocol-driven search procedure of eight