It is my pleasure to introduce this dialogue, the first of its kind in the history of the Journal of Product Innovation Management. I want to thank the editor, Anthony Di Benedetto, for his encouragement of this new format, and I want to thank the authors for their candid, thoughtful, and controversial contributions.

Even though the authors were invited to contribute based on their prior and current work on the topic, their submissions went through a rigorous review process and evolved through several revisions (e.g., one manuscript had nine versions). As the manuscripts went through several iterations, drafts were circulated with the intention to coordinate different contributions to be synergistic and complementary. The authors responded to my comments as guest editor and to those of JPIM editor Di Benedetto and, most importantly, to the comments the authors provided to each other.

Rather than summarize the contributions, I would like to highlight three common themes: (1) the paradoxical role of marketing in managing across technological change; (2) the potential of organizational ambidexterity; and (3) the role of predictions from a theoretical and normative standpoint.

The first theme is the paradoxical role of marketing in managing across technological change. After all, to manage across technological transitions, would technological capabilities not be paramount? It turns out that emerging technologies often find their first applications in new or marginal markets—and only after significant improvement along various performance dimensions invade existing markets. To take advantage of the initial application markets, incumbents need to learn how to address a new market. Elsewhere (Danneels, 2002, 2004) I proposed that a second-order marketing competence is an ability to add new customer competences to address new markets. It seems many of the incumbents investigated by Clayton Christensen had a strong first-order customer competence, as they had the resources to serve their current market, such as customer knowledge, sales and distribution channels, and brand and reputation. However, incumbents lacked the ability to build the resources necessary to serve new markets. Even if not entering into the markets initially served by new technologies themselves (as Markides [this issue] recommends), incumbents need to monitor these remote markets to assess whether what goes on there might impact them. Tellis (this issue) and Govindarajan and Kopalle (this issue) highlight the importance of future market focus and emerging customer orientation, respectively. Slater and Mohr (this issue) emphasize the importance of careful selection of target market and deep understanding of customer needs. In terms of sensing the potential impact, Henderson (this issue) explains how local search builds a rich understanding of current customers, which is in turn reinforced by the local experience of the firm (see also Danneels, 2003). In contrast, building understanding of non-customers (i.e., distant search) is more challenging and has uncertain returns. In terms of actually developing and marketing disruptive innovations, she further shows how building competences to serve new markets may be more challenging for incumbents than for entrants.

The second theme I wish to highlight is whether organizations can potentially be ambidextrous. In this context, ambidextrous firms can develop and market both sustaining and disruptive innovations. There seems to have been an implicit assumption that incumbents should develop the disruptive innovations, although Henderson and Markides question this assumption. The ability of incumbents to develop and market disruptive innovations draws from their ambidexterity. The notion of contradictory skill sets, as stated in Slater and Mohr, as well as
Markides, is intriguing, but the reasons for the contradiction yet need to be elaborated. Why would existing competencies hinder the development of new ones? Is it because developing them would divert resources from refining existing competencies; that is, exploitation wins over exploration in resource allocation due to path dependence and competency traps (Levinthal and March, 1993; March, 1991)? Or could the copresence of different types of resources and competences actually lead to negative synergy? Markides offers some potential sources of dissynergy: channel conflict, brand dilution, and the more ephemeral dilution of culture. A question of great interest is whether the barriers to ambidexterity can be avoided by organizational separation, such as the formation of a spin-off unit to pursue disruptive technology, as recommended by Christensen.

The final theme I wanted to touch on in this dialogue is the role of predictions. In terms of the normative value of predictions, scholarly work would have greater implications for practice if it could produce ex ante predictions rather than ex post explanations. One should make a distinction between making predictions about technologies and making predictions about firms. Govindarajan and Kopalle make excellent arguments for predictions about firms, and Tellis makes reference to his studies of technological trajectories that could potentially provide rudimentary predictions about technologies. Christensen has provided us with the concepts to understand the mechanism of disruption ex post—after it has happened—but the question remains whether there are features of technology and their initial applications that signal potential disruptiveness.

In terms of the role of predictions for theory development, in this issue Christensen states that “the value of a theory is assessed by its predictive power” and argues that making ex ante predictions of the future course of technologies and firms is a worthwhile scholarly pursuit. He also mentions examples of companies that implemented recommendations derived from his theory and stayed off the expected decline of incumbents facing disruptive technology. Unfortunately, he did not mention another predictive application of his theory. Christensen cofounded and with Neil A. Eisner managed the Disruptive Growth Fund, a mutual fund investing in stocks of disruptive technology companies (offered by E.C. Advisors). The fund was launched on March 10, 2000, the same day the Nasdaq Composite Index peaked (Scherreik, 2000). It is the irony of fate that the fund was launched on the very day that the tech bubble was the most inflated. The fund was quietly closed less than a year later, in February 2001, having lost 64% of its value (Federal Filings Newswires, 2001). In comparison, the NASDAQ lost about 50% of its value during that same time period, dropping from about 5,000 to about 2,500. Christensen and Eisner declined to comment on the situation to Business Week (Scherreik, 2001). One may not consider this a fair test of the theory. However, what better way to test a theory than to have its originator (the most knowledgeable person) pick stocks he expects to do well, based on his theory? If one were to rebut that the theory was not intended to predict stock performance, then why would its originator use it as such? Most importantly, from a theory development perspective, it is important to examine this apparent anomaly.

To conclude, this area of research has clearly been multidisciplinary, as scholars from many different disciplines have contributed. Regrettably, research has not quite been interdisciplinary—truly integrating ideas from several disciplines to form a comprehensive and rich understanding of the phenomenon. Interdisciplinary work puts a great burden on the scholar in terms of breadth of required reading and thought. Christensen says he has looked at disruptive innovation phenomena through the lens of marketing, but his reading of marketing seems to have been perfunctory. For example, his Solution book (Christensen and Raynor, 2003) reveals that customers “hire products to do jobs.” In marketing theory, this notion has been known as benefits for decades (Haley, 1968). A true cross-fertilization among scholars with absorptive capacity (Cohen and Levinthal, 1990) in many scholarly areas is necessary.

In spite of all critiques, doubts, challenges, and questions, the ideas generated by Christensen and his colleagues are very powerful. It is rare that a stream of work generates such rich debates. No doubt, the study of the effects of technological change on firms and industries benefits from this intellectual ferment. But then again, maybe we should consider Andy Warhol’s words and stop being so analytical. Perhaps managing disruptive technology is an art.

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References


