

Designing B2B Marketing through Design Thinking

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Abstract

Design Thinking (DT) is now a pre-eminent framework for innovative product, service and business development (Brown, 2008, 2009; Martin, 2009, 2010). DT can also be viewed as operationalization of systems thinking expressed through sensemaking (Pourdehnad, Wexler and Wilson, 2011). DT is used in marketing activities including new product/service development, branding, supply chain and business development and start-up activities. DT is also linked to user experience (UX) from a conventional human-system perspective and now with a strong human-computer interface (HCI) focus i.e. Digital UX. This paper explores rationale and application of DT into B2B marketing activities using the IMP interaction model. DT frameworks can support coordination of business exchange interaction to produce adaptations and cooperation. DT can also be used to design new value creating networks to include a wider set of different actors, drawing from a 'maker' paradigm (Anderson, 2012). A framework is presented for designing new 'B' to 'B' networks.

Keywords: design thinking, makers, users, digital, B2B networks

Emergence of design thinking

Over the last ten years, 'design thinking' (DT) has gained the attention of business and marketing practitioners, and more recently academic researchers. DT is now a prominent framework for innovative product, service and business development.

Design as concept relevant to business can be traced back to Simon, and the broad term 'design thinking' as a term was initially used by Rowe (1987) but popularized for business by Brown and Martin in the mid to late noughties. Definitions of DT include:

Brown's (2008) definition as used by IDEO: *"a discipline that uses the designer's sensibility and methods to match people's needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity"*.

An updated IDEO definition is: *"Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success"* (Brown, 2016).

An alternative definition from Martin (2010) is: *Yet what does it mean to be a "design-thinking" organization? It requires gaining the ability to strike a better balance between exploration and exploitation of the innovation process than is typical of most organizations today.*

Neither analysis nor intuition alone is enough. In the future, the most successful businesses will balance analytical mastery and intuitive originality in a dynamic interplay that I call "design thinking." Design thinking enables leaders to innovate along the path of the knowledge funnel, and the firms that master it can gain long-term business advantage. (p. 38)

Martin sees DT as an expression of abductive logic i.e. combinations of rational and intuitive logic. Martin's 'knowledge funnel' is DT linked with systems thinking to take unstructured ideas and scenarios, and structure them into information to produce heuristics and algorithms to produce products and services (Martin, 2009; 2010). DT can also be viewed as operationalization of systems thinking expressed through sensemaking (Pourdehnad, Wexler and Wilson, 2011).

Beverland, Wilner & Micheli (2015) proposed a definition highlighting various key themes: “*we define design thinking as a creative and strategic process characterized by the following hallmarks: abductive reasoning, iterative thinking and experimentation, holistic perspective, and human-centeredness*” (p. 593)

Beverland, Wilner & Micheli’s (2015) definition captures DT as it is mostly applied within a marketing context. However, as we shall see later in this paper, the definition is incomplete when viewing innovation and entrepreneurship in a digitization context.

Applications of DT to marketing activities include branding (Beverland, Wilner & Micheli, 2015; Chen & Venkatesh, 2013), product and service design (Liedtka, 2015), developing social marketing (Lefebvre, 2012) and entrepreneurial marketing (Pattinson, 2016a). Liedtka (2015) critically analyzes application of various DT methods in practice to product and service design through a three stage framework; Stage I data gathering about user needs; Stage II idea generation; and, Stage III testing (p. 928).

An entrepreneurial marketing perspective points toward DT as a form of sensemaking (Weick, 1995; Pattinson, 2016a) for start-up activities combining new product and service, and business model development. DT is expressed through cognitive mapping and enactment account tools including for example minimum viable product (MVP), business model generation, customer journey mapping and various forms of roadmapping

Several versions of DT mapping development from an idea through to prototyping and testing are now available, with most drawing from the Stanford D-School model (Plattner, 2010) using iterations of five modes: empathize, define, ideate, prototype and test. Since 2005, DT has been adopted and deployed in large businesses (e.g. Proctor and Gamble, IBM, GE, and Philips) and institutions (e.g. UK Design Council, 2007).

Design thinking in a B2B context

From a B2B perspective, DT appears to be a restatement of established new product development principles, or familiar software and knowledge management development concepts.

DT is permeating deeply into the development and configuration of business network actors, resources and activities, and how ‘businesses’ are developed. Start-ups, new ventures and entrepreneurship teaching, training and practice is increasingly based on design thinking frameworks. Design thinkers are starting to drive marketing, particularly entrepreneurial marketing, supply chain and a new industrial paradigm where ‘makers’ can coordinate and undertake complete design, build and share phases of product/service/process development (Anderson, 2012; Pattinson, 2016b).

Marketing academic research has not focused on DT from a B2B perspective. Design in B2B activities is becoming a significant topic within the IMP community. The 31st IMP Conference in 2015 was focused on “Organizing Sustainable B2B Relationships – Designing in Changing Networks”. Illi and Ylirisku (2015) explored application of design to B2B sales negotiations, and design-driven logistics and supply chain systems are an emerging theme in B2B marketing research.

From a B2B perspective, we can explore actors, resources and activities within existing networks using a DT perspective – or use the approach to redefine and design new forms of “B2B networks”.

Design thinking and the IMP model

DT based on abductive reasoning, iterative thinking and experimentation, holistic perspective, and human-centeredness is inherent within the IMP interaction model (Hakansson, 1982). Networks and relationships operate to design technological, business, and human value. All exchanges

(product/service, information, financial and social) can contribute to cooperation and adaptations – and could be viewed through a DT perspective.

However, B2B interpretive research and practice has over the last two decades has increasingly aligned with systems thinking to understand implemented strategies; to express sensemaking; using a variety of methods to operationalize them e.g. cognitive mapping, system dynamics, agent-based modelling, and fuzzy logic applications (Woodside, 2006; Woodside, Pattinson and Miller, 2005; Woodside, Pattinson and Marshall, 2014). Martin (2010) recognizes integration of DT and systems thinking. Pourdehnad, Wexler and Wilson (2011) put the case for integration: *Systems thinking methodologies arose from the consideration of social systems.- the stakeholders are the designers. Design thinking methodologies arose from the consideration of products and artifacts. The problems are ultimately resolved by people identified as a designer by trade. The stakeholders are observed and studied by the design team. An integrated approach to problem resolution requires design thinkers to expand their understanding of good systems design principles with a purposeful consideration of the social systems they are working within* (p.8)

Positioning of DT as crafting or developing strategy as exemplified by recent articles and the Harvard Business Review issue on “the evolution of design thinking” (Harvard Business Review, 2015) are in effect combining design thinking with systems thinking around a social, but business or institutional context.

Regardless of whether the starting point is a design issue or related to stakeholder concerns, in a B2B context, DT as a sensemaking approach could be applied to coordinating exchanges to produce adaptations and co-operation (see Figure 1).

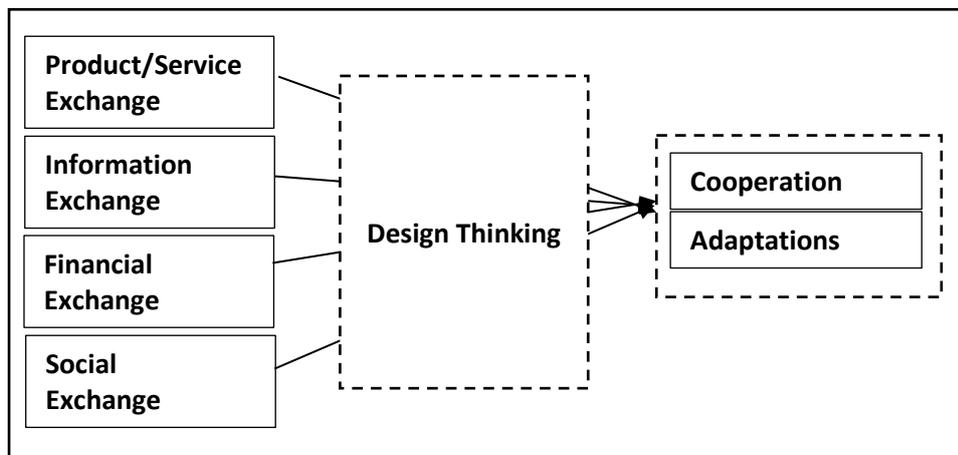


Figure 1: Design thinking, exchange and interaction
(Adapted from Hakansson, 1982; Sood and Pattinson, 2012)

Businesses interacting to produce solutions in a B2B context should be able to produce a network-centric form of DT. In practice, however, each business in a B2B network will have to trade off a firm-centric DT view (focused toward internal social/business systems) to develop a feasible, viable, and socially plausible network-centric DT view (focused on outcomes for the network). Translating DT from a firm-centric perspective is difficult – but may be achieved through defining shared product/service production and use objectives or outcomes.

Design thinking, ‘users’, user experience (UX), and the IMP model

DT applied to start-ups and new ventures and especially in a digital context is becoming focused on turning an idea into a prototype and showing it to ‘users’ faster. Defining a ‘user’ and ‘user experience’ are fundamental elements within DT.

A simple human-to-system interaction view of a user expressed in ISO Standards is that a ‘user’ is a “person who interacts with the product” (ISO 9241-210:2010(en), 2010, 2.14). ‘User experience’ is a “person’s perceptions and responses resulting from the use and/or anticipated use of a product, system or service” (ISO 9241-210:2010(en), 2010, 2.15).

From a B2B perspective, ‘users’ could be viewed as the ‘end-users’ or the ultimate consumers of a product or service collectively developed and delivered to them. ‘Users’ could also be other businesses who use products or services created by other businesses for them, and offer their own products or services to other businesses. ‘Users’ could be individuals or groups within those businesses. From a B2B networking perspective a ‘user’ could be representing several different actors with different user experiences.

So far ‘users’ and ‘user experience’ is based on simple human-system interaction. However, as new product, service and business development becomes more digitally-focused, a Human-computer interface (HCI) perspective becomes more relevant. Incubators, accelerators – whether they be driven by large businesses, agencies, universities or private specialized operations – are refining DT frameworks to produce ‘rapid digital UX’. Businesses including Phillips (Gardien et al 2013) P&G (Arnoud, 2016) and AT&T (Weiblen and Chesbrough) are using design thinking in their ‘digital’ accelerators to put new digital products in front of users to rapidly evaluate user experience (UX).

Human-computer interface (HCI) researchers have evolved UX from a task-oriented, cognitive concept of usability, toward a more digital-based software design definition “to comprise all activities performed in software development to ensure the desired target level of UX in the final product” (Isomursu, et al. 2010). Today, use of UX as a term for user experience is typically linked to the HCI definition. This form of UX is not just about producing things quickly but also orchestrating network actors, resources and activities around a common development outcome, using digital platforms.

Figure 2 positions DT, and UX within the IMP interaction model as managing interaction of exchanges to produce coordination and adaptation. DT is used to develop and test all types of exchange between businesses in a network. Users of these exchanges and resulting cooperation and adaptations provide interaction and feedback on their experience as B2B users or customers of network created products and services.

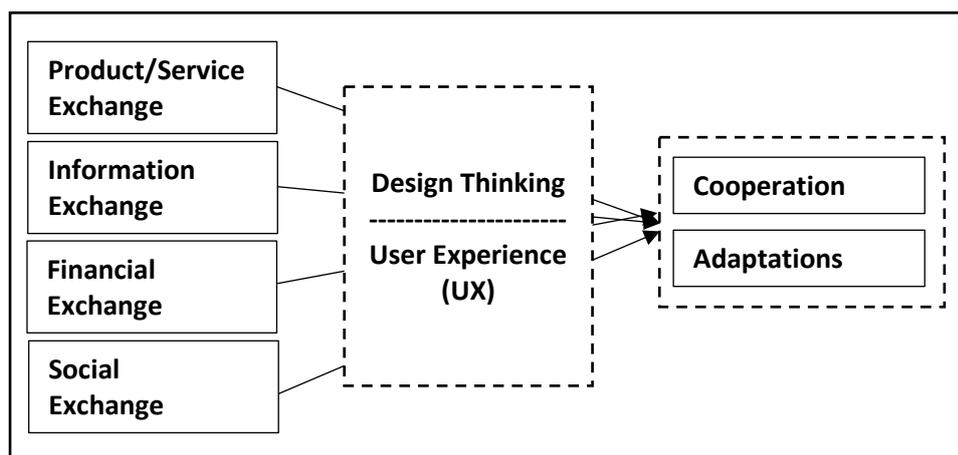


Figure 2: Design thinking, exchange and interaction
 (Adapted from Hakansson, 1982; Sood and Pattinson, 2012)

Applying design thinking to designing new forms of ‘business’ networks

Conventional B2B networks may no longer be sufficient for agile and innovative product or service or value creation. Digital platforms can ‘de-frictionalise’ identities of actors, resources and activities speeding up interaction – perhaps to a point where the nature of a ‘business’ (Coase, 1937) is under challenge. ‘B’-‘2’-‘B’ networks need to be redefined to include actors who may be individuals, small groups, communities, businesses, and digital entities to create – and use – products and services around common objectives. This extended network is part of the emerging collaborative economy focused “on digital platforms enabling wider and faster distributed networks of connected individuals, communities and businesses, to share production and consumption around common objectives” (Pattinson, 2016b). Collaborative economy networks of collective production and consumption is explainable using the IMP interaction model – but only if any type of actor can be included in a B2B network.

A possible variation for a B2B network creating value is the ‘maker’ paradigm. Anderson (2012) highlights that most of the key steps in transforming an idea into a prototype as a physical artefact or software as information or an application service are now digital, revolutionising skills and time required to deliver them to a user. In this context, Digital UX is essentially ‘Think, Prototype, Build’, i.e. translate thinking into digital form- then make it digitally (or as near to digitally as possible). The ‘maker’ focuses on expressing ideas into software, which then produces prototypes using 3D Printers and associated additive fabrication equipment (see ‘Fab’ perspective in Lipson & Kuman, 2013; Gerschenfeld 2010, and 3D Printing in Anderson, 2012).

‘Makers’ can coordinate and undertake complete design, build and share phases of product, service and process development using digital platforms. They also often use product, service and process development made and transferred through these digital platforms. Actors, resources and activities associated with makers here is a form of value creation network – in effect a modern industrial manufacturing network.

Applying design thinking to designing new forms of ‘business’ networks

DT is typically focused on developing new products, services and more recently new businesses – but is increasingly is used to explore, plan and design many different topics and challenges. Stronger integration of DT with systems thinking is now used in scenario planning and regional planning projects – e.g. Deloitte’s (2015) “Shaping Future Cities: Designing Western Sydney”. Applying DT to designing value-creating networks – a typical province of business - is a logical application.

How could existing businesses apply DT to identify; to develop; to join; or contribute to a value creating network? How do existing businesses apply DT to change networks? Figure 3 outlines a framework for actors to use DT for designing their involvement within a value creating network.

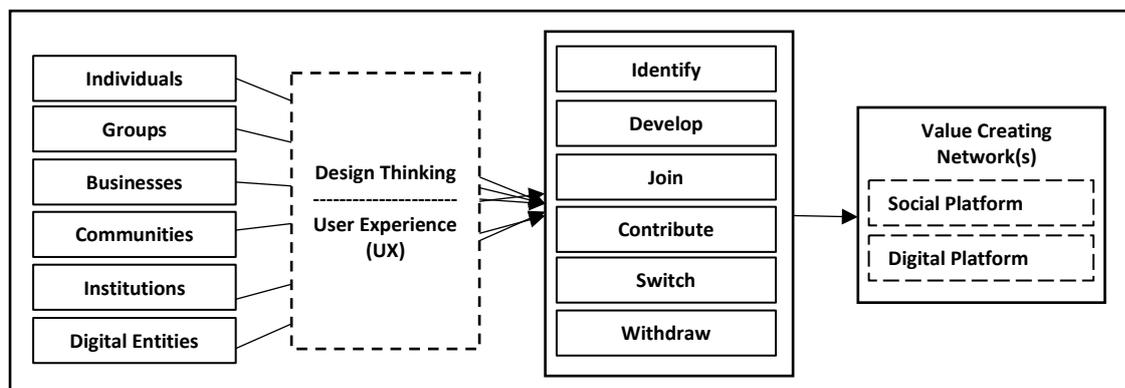


Figure 3: Using design thinking to design networks

Potential value-creating network actors include individuals, groups, businesses, communities, institutions and ‘digital entities’ – anyone or anything who or that can contribute to such a network. DT is used to design an actor’s (or actors’) approach toward a network including identification, development, joining, contribution, switching and withdrawing. UX is used to both to evaluate users within the network using value-creating products and services – and for evaluating user experience within the network itself. Human user experience (Human UX) is shared through the social platform of the Value-Creating network through human conversation and interaction. Digital UX is shared through the digital platform of the network.

The framework enables designing networks that are not purely focused on businesses to create business values. Potential network actors can use DT to explore their options for involvement within a value creating network. The framework is focused on sensemaking to quickly produce action and outputs – but also should be iterative to enable adaptations and revisions to network development and user responses to those developments.

Researchers could also use the framework to understand different actors’ actions related to particular value-creating networks beyond straight businesses within them.

Using design thinking to design the future of ‘B’ to ‘B’ networks

DT has gained the attention of marketing researchers and marketers in product/service development, branding and more recently new business development. DT is now permeating into B2B activities and can be used as a framework for managing interaction of business exchanges for interaction into adaptations and cooperation with feedback through collective business user experience (UX).

DT can be used by actors to offer insights and action to go beyond conventional product/service development – to design networks – challenging the constitution of a B2B network and the nature of a ‘business’. The ‘Maker’ paradigm with strong focus on design, development and delivery using digital platforms appears to be an appropriate approach for understanding extension of B2B networks to a value-creating network with a wide and diverse set of actors.

Now is the time to apply design thinking to explore development and design of new ‘business networks’.

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