The Role of Interactive Technology in the Co-creation of Experience in Scottish Visitor Attractions

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Abstract

As a sector reliant on the creation of memorable experiences, visitor attractions (VAs) have increasingly turned to interactive technology as a platform for engaging and communicating with visitors. However, little is known about how these technologies contribute to the overall visitor experience. Drawing on service-dominant (S-D) logic and the co-creation perspective, this PhD research questions the process by which visitors actively co-create an experience with interactive technology as a mediator.

Keywords: co-creation; experience; visitor attraction; interactive technology; service-dominant logic

1 Problem Definition

It is widely acknowledged in the tourism literature, that the creation of memorable and enriching experiences is at the heart of the industry (Mossberg, 2007; Otto & Ritchie, 1996; Pizam, 2010; Ritchie, Tung, & Ritchie, 2011). However, much of the scholarly work in tourism has clung to traditional concepts and theory that views experiences as something to be designed or engineered. In contrast, growing literature in the marketing and management fields identify co-creation as an alternative view. From this perspective, customer experiences are seen as individualised and actively co-created between various actors in the service environment (Prahalad & Ramaswamy, 2000, 2004; Vargo & Lusch, 2004, 2008). One area that complicates the co-created experience perspective, is the presence of mediating platforms (such as technology) that act as touch-points between the customer and the service provider. However, research into how these platforms impact and contribute to a co-created experience is limited and could benefit from focussed academic study. In addressing this gap, this PhD study explores the process of experience co-creation in the visitor attraction (VA) sector, where interactive technologies are increasingly being used as an interpretative tool to enhance the visitor experience.

2 Literature Review

In particular, the emergence of service-dominant (S-D) logic has fundamentally altered how service experiences are constructed and explored. In contrast to traditional 'goods-orientated' tangible exchanges, S-D logic posits a reciprocal relationship exists between the firm and the customer that in turn co-creates value (Gummesson, Lusch, & Vargo, 2010; Kryvinska, Olexova, Dohmen, & Strauss, 2013). From this perspective, value is not embedded in tangible commodities but in the service relationship that surrounds them. It is an alternative worldview that attempts to blur the division and distance of power between the customer and the business in the service relationship. Karpen, Bove, Lukas, & Zyphur (2015, p. 90) expands on this process:

> *"S-D logic provides a service-based view of marketing phenomena that regards service as the core reason for exchange, enabled primarily by operant*

resources such as knowledge and capabilities and actualized through value co-creation processes."

From the co-creation perspective, the service experience and its subsequent value, is developed through interaction, meaningful dialogue, engagement and personalisation between various actors, as opposed to being predetermined or pre-packaged. The customer is no longer cast as a passive recipient, but becomes an active co-creator in their own individualised experience (Prahalad & Ramaswamy, 2000, 2004; Vargo & Lusch, 2004, 2008). However, the co-creation literature does identify various physical or virtual platforms which have the potential to influence and mediate the co-creative relationship. Ramaswamy and Ozcan (2014, p. 34) define these platforms as:

> *"...an assemblage of persons, processes, interfaces, and artifacts, whose engagement design affords environments of interactions that intensify agential actions in value creation."*

However, research which questions the extent to which these platforms can act as co-creative tools is less prominent in the academic literature. Increasingly, technology can be viewed as one such platform. Saarijärvi, Kannan, & Kuusela (2013) view technology as a co-creative mechanism that can assist in the integration of resources from various actors in the service system. Similarly, Reay & Seddighi (2012) and Gemser & Perks (2015) suggest that ICTs facilitate and empower consumers to help shape new product/service development. Furthermore, Neuhofer, Buhalis, & Ladkin (2012, 2014, 2015) developed a typology of technology-enhanced destination experiences that questioned the role of technology in the pre-, on-site and post-travel activity. However, further research is needed to question the co-creative process in other contexts. As such, Brodie, Hollebeek, Jurić, & Ilić (2011) call on academia to further explore how consumers engage with objects, people and platforms in the service environment, to understand how these stimulate co-creative relationships.

This paucity of research is particularly relevant within the VA context. Defined here as "*…a permanent resource, either natural or human-made, which is developed and managed for the primary purpose of attracting visitors*" (Hu & Wall, 2005, p. 619), VAs have received considerably less academic research than other aspects of tourism (Fyall, Leask, & Garrod, 2002; Leask & Fyall, 2006; Leask, 2010; Richards, 2002). What makes the VA domain a particularly unique environment is the attraction product. As highlighted by Voase (2009) and similarly by Wanhill (2009), visitors to attractions are often primarily in pursuit of an experience over any tangible outputs. Increasingly, interactive technologies are used in VA exhibitions to mediate the visitor experience and provide additional points for interactivity or engagement (Knudson, Cable, & Beck, 2003; Veverka, 1998; Widner-Ward & Wilkinson, 2006). Various forms of media (such as: audio-visual presentation; touch-screens; immersive technology; and augmented reality) have become powerful tools to provide opportunities for personalised experiences (Rey & Casado-Neira, 2013; Taheri, Jafari, & O'Gorman, 2014; Var, Chon, & Doh, 2001). Interestingly however, the process by which VA interactives can foster a co-creative experience has yet to be considered in the academic literature.

3   Conceptual Development

Primarily, the study aims to examine the role and application of interactive technology in the co-creation of visitor experiences in Scottish visitor attractions. Furthermore, the study questions the process through which visitors actively co-create an experience, specifically with the use of interactive platforms. As presented in **Table 1**, a range of theoretical factors have emerged from both the tourism and

service management literature. The study intends to explore the presence of these factors and to critically question their position in the VA context. The output of this analysis aims to generate a process model for technology-enabled co-creative experiences. Despite being focussed in the VA sector, the model could be adapted to different experiential contexts (such as the festival and events sector) or by exploring other types of engagement platform (such as visitor-facing staff).

Table 1. Preliminary Theoretical Factors (developed by author)

Theoretical Factors	Description	Application to the VA Sector
1. Management Factors	Management factors that may contribute to the process of experience co-creation.	1.1 Nature of the message 1.2 Commercial drivers 1.3 Management / affordance of technology 1.4 Authenticity 1.5 Value of technology as an interpretative tool
2. Visitor Factors	Factors that may contribute to the process of experience co-creation from the perspective of visitors.	2.1 Preference 2.2 Propensity 2.3 Access 2.4 Demographics 2.5 Interpretation of the experience
3. Factors influencing the Co-creation of Experience	Broader conceptual factors emerging from the literature that can influence the overall process of experience co-creation.	3.1 Engagement 3.2 Individualisation 3.3 Interaction 3.4 Active vs. passive experience 3.5 Degrees of choice 3.6 Personalisation

4 Proposed Methodology

Based in the constructivist paradigm, the study employs interpretative and reflective techniques to gain insight into the co-creation process. Investigation into multiple subjective realities is captured through various layers of qualitative fieldwork that focusses on the interpretation of individual experiences (Fuchs, 1999; Hollinshead, 2006; Pernecky, 2007; Tronvoll, Brown, Gremler, & Edvardsson, 2011). Furthermore, the voice of the researcher is firmly embedded in the data and acknowledged as another 'actor' within the co-creative space (Flick, 2014; Riley & Love, 2000). The research relies on multiple case studies of VA exhibitions in Scotland to provide a range of contexts to explore the technology mediated co-creation process. The sites have been selected with a purposive, information-orientated sample and feature along two dimensions: approach to interpretation (technology as a core method vs. supporting method) and level of interactive technology (basic - advanced). Provisionally, the sample comprises of four sites featuring different types of message (such as heritage, science, culture and so on) however additional sites may be explored to acknowledge different contexts.

As highlighted in **Table 1**, this study features three units of analysis: (1) management factors; (2) co-creation factors; and (3) visitor factors. As such, three forms of data collection address these units to gain insight into the co-creative process at each site. Initially, a semi-structured interview with exhibition management provides a starting point of the process. The management choices for selecting, designing and positioning interactive platforms within the exhibitions will directly influence how visitors engage with them. Moving into the visitor space, direct observation provides contextual richness for the study (Pauly, 2010). This method explores the exhibition environment, the visitor flow and observed visitor behaviours with regards to

technology use. Finally, semi-structured interviews with visitors in and around the exhibitions can follow-up on some of the observed behaviours and also begin to capture their interpretation of the experience.

5   Theoretical and practical implications

A number of theoretical implications are raised in this research. Primarily, the study applies the concept of co-created experiences to the unique visitor attraction context, an area currently under-researched academically. The research further attempts to examine the relationship between the VA and the visitor, with technological platforms as an intermediary. While the use of interactive technology in a VA setting is not a new phenomenon, its application as a co-creative platform has been largely overlooked in tourism research. Finally, the study aims to develop an original framework which identifies the factors contributing to the success of interactive technology as a co-creative platform for VA experiences. This not only makes a strong contribution to the VA literature, but also extends knowledge in the wider tourism field. The study also has the potential to influence VA management approaches, by providing direction for technology adoption and its impact on the visitor experience. This is particularly relevant with regards to exhibition design and curatorial practice, where recommendations could be made to enhance visitor experiences in technology-mediated environments. Not only does technology represent a significant financial investment in need of monitoring, but also this study would provide insight into the effectiveness of technology as an experiential tool.

6   Discussion

At the time of writing, the author has yet to enter the field, however initial findings should be better formulated in preparation for the workshop in January 2017.

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