CRANFIELD UNIVERSITY

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Addressing the Ghost in the Machine
or
"Is Engagement a sustainable intermediate variable between the
website drivers of consumer experience and consumers' attitudinal and
behavioural outputs?"

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A SYSTEMATIC REVIEW

Supervisor: Professor Hugh Wilson

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Abstract

Background and Purpose*:* In response to the cost transparency of the internet which has facilitated consumer switching behaviour, marketing practitioners have used the umbrella term of *engagement* to describe the experiential response to mechanisms by which consumers can be enticed and co-opted into behaviour presumed to be conducive to purchase or future purchase. It is a concept that, until recently, has been largely circumvented by the marketing academic world.

Therefore, the purpose of this systematic review is to generate a workable definition of consumer brand engagement online, predicated on a research model that builds on extant academic and practitioner evidence, which by virtue of its construction:

1. Shifts the locus of theoretical attention from a mechanistic/structuralist view of online consumer experience, increasingly recognized by the academic world as insufficient in its explanatory power, to more a more unitary approach that aligns behaviourist causality with '*experiential intensity*'

2. Establishes a common discourse, thereby reconciling academic and practitioner perspectives

3. Provides the theoretical base for preliminary work on experiential metrics, and creates a platform for future research.

Methodology: The review uses 'realist synthesis' to refine theory from a broad range of heterogeneous sources. The chapter on methodology provides a clear audit trail showing how decisions were made, evidence scrutinised and evaluated, and findings synthesised.

Findings: The review provides support for the model and the definition of online consumer brand engagement, as well some steps towards operationalising the construct. The limitations of the methodology and learning points are discussed, as well as the contribution to future research and practice.

Table of Contents

Table of Figures

Tables

1   INTRODUCTION

The aim of this review is to reconcile academic and practitioner views on *'engagement'*. To understand the dichotomy, it is necessary to examine the provenance of engagement.

Regardless of whether one views the internet as an agent of disruptive change, (Kuttner, 1998) or merely another distribution channel (Porter, 2001), there does appear to be grudging consensus that the effect of the Internet's "cost transparency" (Sinha, 2000), i.e. easily accessible competitive price and product information, has been to stimulate consumer brand-switching behaviour, notably in those high-involvement categories, where information search is a key part of the decision process.

Moreover, as empirical studies, both academic and practitioner (Mollen/AOL/Henley Centre, 2004), have supported, the internet is not a hermetically sealed world: online information is dramatically affecting offline sales. Therefore, the key issue for brand owners is whether they can counter these anarchic, online information flows, in a context where the consumer is empowered (Urban, 2005) and in a medium where the emotive brand message is vitiated by instantaneous critical scrutiny (McWilliam, 2000, Coombs, 2002).

One of the primary mechanisms for constraining the deleterious effect of online information transparency is the company-sponsored website (Karson and Fisher, 2005). Academic and practitioner attention has therefore been focused on how one can mediate the customer experience at the website to drive brand trust, brand loyalty and customer advocacy (Eroglu and Machleit, 2001, Sautter, Hyman and Lukosius, 2004, Bart, Shankar, Sultan and Urban, 2005).

It is here that the academic and practitioner worlds diverge. For practitioners, the experiential response to mechanisms by which online consumers are enticed and co-opted, via certain website drivers, into attitudes and behaviours conducive to purchase or future purchase, is categorised by the term *engagement*. For the practitioner, *engagement* appears to be a key metric and a leading indicator of online competitive advantage. Numerous conferences on the subject attest to its centrality to online marketers' definition of best practice.

Engagement is considered a critical variable within the context of e-learning literature and its usage in this field is supportive of the practitioner perspective. However, marketing academic literature, until very recently[1], appears to spurn 'engagement' as a construct. Marketing academia, in early studies about the online environment, appears to concentrate on the concepts of 'flow' and 'interactivity', which it regards as responsible for *"greater favourability towards the product and the website"* (Sicilia, Ruiz and Monuera, 2005), although the balance of academic empirical evidence, *with reference to flow*, regards its commercial utility, at best, as unproven, at worst, as irrelevant (Zeithaml, Parasuraman, and Malhotra, 2002). Even as late as 2005, studies regard the intermediary variable of *'engagement'* as redundant or implicit, as in the Bart et al study (2005), wherein the drivers of website trust are operationalised directly into constructs of customer experience.

We can either accept an implacable, ontological schism between academics and marketers, or if we believe that management research must perforce address the needs of all stakeholders *'to meet the double hurdle of embeddedness in the social sciences and the worlds of policy and practice'* (Pettigrew, 1997, cited Tranfield, Denyer, and Smart, 2003: 211) and that the production of knowledge in this discipline should reflect a *"constant flow back and forth between the theoretical and the practical"* (Tranfield and Starkey, 1998 cited Tranfield et al 2003: 212), then we should seek to reconcile practitioner and academic views. The latter approach promises to provide a bridge to understanding that not only contributes to academic clarity but also provides practical benefit.

By examining the evidence base and clarifying the ontological debate about website experience, this review aims to put forward *a prima facie case* for the existence of *engagement* as a construct, independent of 'flow' and 'interactivity, thereby reconciling the academic and practitioner perspectives. It is the objective of this process of reconciliation that it should produce a 'testable' definition of engagement that furnishes operational metrics, thereby satisfying the practical needs of the practitioner world and the conceptual rigour of the academic one.

The structure of the review is as follows:

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[1] December 2006 and June 2007

Chapter 2 features a narrative sweep of the evidence, most of which is derived from the contributory Scoping Study. The objective of this overview is to position engagement within the evidential landscape, examine the major ontological and epistemological debates and, via the process of discovery, furnish working definitions of online consumer experience, online consumer brand engagement, and a supporting research model. The definition of online consumer brand engagement, which is predicated on the research model, affords a number of research propositions, which are then systematically investigated.

Chapter 3 sets out the methodology underpinning the systematic review. It delineates the search strategy and the process of recording and analysing evidence, and notes where practice conflicted with the envisaged strategy featured in the Scoping Study.

Chapter 4 provides a descriptive analysis of the evidence base. It analyses the data by journal inclusion, date, and geographical location. It also looks at how the data is distributed by theory area and puts forward the implications of that analysis.

Chapter 5 presents the thematic findings. Each of the research propositions supplies a number of research questions that must be addressed by the evidence. This chapter discusses whether the assumptions inherent in those questions are supported by the evidence.

Chapter 6 synthesises the evidence and asks to what extent the research propositions, itemised in Chapter 2, are validated. It is also offers a methodological perspective on conducting the data synthesis. The conclusions of this chapter lead to a refinement of the original research model.

Chapter 7 concludes the review. It assesses the implications of the review for practitioner and academic, itemises the limitations of the study, in terms of content and process, and puts forwards a number of learning points associated with the review process. The chapter ends with some considerations for future research.

2   CONSTRUCTING THE RESEARCH MODEL

To construct the research model, the evidence base is scrutinised to:

1. Establish the importance of engagement and its relation to customer experience

2. Discern the relationship between customer experience and the specific dynamics of website experience. These dynamics include consumer responses to interaction with the operator environment (the properties of the medium) and specific responses to website mechanics or 'drivers' implanted by the website sponsor.

3. Understand, as part of that website experience, the distinction between consumer appreciation of website heuristics and the 'brand' as personified by the website.

4. Extend the existing conceptual models of online consumer experience to include engagement as a sustainable intermediate variable between the website drivers of that 'experience' and desirable attitudinal and behavioural outputs such as brand trust, brand loyalty and customer advocacy.

2.1   Mapping the Field

Online Engagement is part of a dynamic locus (Figure 1) where three powerful forces interact: the legacy or reputation of the brand, the properties of the host medium (the internet), and specific, individual consumer characteristics. These forces interact at a *singular property,* a website, and it generates a customer experience.

The review investigation starts at that locus. In the practitioner world, the experiential response to online mechanisms, a process that then generates customer value, is termed *engagement.* More specifically, *online engagement is considered a pre-requisite for customer value.* In the academic world, apart from the e-learning corpus of work, and, to date (to the reviewer's knowledge) there is only one paper in the marketing literature before December 2006, (Sawhney, Verona, and Prandelli, 2005) that talks about *consumer engagement* in the context of online interaction with brands at commercial websites.

FIGURE : MAPPING THE FIELD
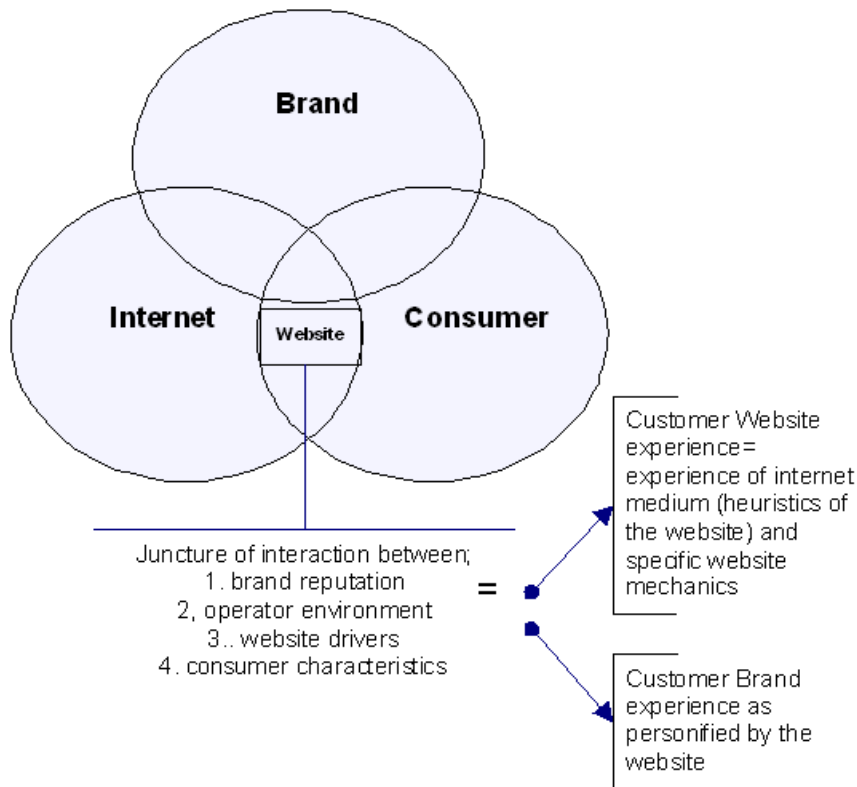
If Kuhn's view of the implementation and advancement of knowledge holds (Structure of Scientific Revolutions, 1962), then both academics (usually explicitly, as part of the scholastic tradition) and practitioners (usually implicitly) employ certain theoretical paradigms that underpin their respective research and practice. Thus, if practitioner and academic perspectives are to be aligned, it is necessary to understand first the theoretical constructs underpinning online customer experience.

2.2   The Importance of Customer Experience

The importance of customer experience is pervasive in academic and practitioner literature and research.

Customer experience, in its totality, has been defined as "the feelings customers take away from their interaction with a firm's goods, services" and "atmospheric" stimuli" (Haeckel, Carbone, and Berry, 2003). These experiences begin "long before and after [purchase] transactions" and encompass "functional and affective attributes". There is a considerable amount of academic literature showing that interaction with these

atmospheric cues induces, through the manipulation of consumers' 'emotional and cognitive states', various "psychological and behavioural shopping outcomes" (Eroglu, Machleit, Davis, 2001:17).

However, the attention now being paid to customer experience is less a consequence of the saliency of environmental psychology research, which views customer experience as one of many mechanistic drivers that create value and drive corporate profitability, than the result of a paradigm shift, which views customer experience as central to the creation of corporate value. That paradigm shift is, in essence, the shift from a "goods-dominant logic" to a "service dominant logic" of marketing (Vargo and Lusch, 2004).

As products proliferated and commoditised, as the time lag between distinctive product innovation and competitor mimesis shortened, marketers' attention turned from *"quality and functionality"*, increasingly seen by consumers as basic hygiene factors–almost, the price of market entry - to other mechanisms of differentiation. These marketplace factors were, in turn, acknowledged and absorbed into academic theory, which thus evolved from supporting the primacy of the physical (product attributes) in the 1970s to advocating the primacy of the 'cognitive and emotional' ("brand and price") in the 1990's, and "service, information and delivery" from the year 2000 onwards (Mascarenhas et al, 2006:397).

According to Vargo and Lusch (2004:1) the supplier-customer exchange is not one of "tangible resource, embedded value and transactions" but one of "intangible resources, the co-creation of value and relationships". What drives value for the consumer is not the product's 'physical entity' but its *value in use',* the exchange of embedded knowledge, which then liberates its latent value. This type of thinking is distilled perfectly in Procter &Gamble's re-orientation of its marketing function,

"P&G no longer sees itself as a maker and seller of products. More importantly, P&G marketers are thinking much more "broadly and differently" about their brands, driving what Stengel (CMO) calls a "transformation" of brand strategies and taking P&G into services and solutions, information and advice, even relationships - "At one time we probably thought about Pampers as a nappy that's the best at catching urine. We now think about Pampers as a product and service that helps mothers to look after their babies." (Marketing Week, 2002)

The ideological lens of Vargo and Lusch (2004), whereby value is perceived as being determined and created by the consumer, and persists by the exchange of intangible resources and the development of interactive relationships, has

been adopted by those prescribing the 'total customer experience' approach to customer loyalty.

"Total customer experience" (TCE) is embodied in "physical moments, emotional involvement moments, and value chain moments" (Macarenhas et al, 2006). It is defined as "*a totally positive, engaging, enduring, and socially fulfilling physical and emotional customer experience across all major levels of one's consumption chain and one that is brought about by a distinct market offering that calls for active interaction between consumers and providers*" (Macarenhas et al, 2006:399). It is an experience that is specifically characterised by focus on consumer needs and wants. TCE is seen as providing meaning, relevance, and tangible value to the consumer; it provides (or is perceived to provide) a distinct economic benefit; it interacts with the consumer to create an emotional affect, that is internalised and personalised by the consumer and which is then embedded to provide "engaging memories". (Macarenhas et al, 2006).

Procter &Gamble echoes the philosophy that mere customer 'utility' is not enough:

"The ultimate goal is brands that consumers can't imagine living without. We want to be so important to the consumer's life that we don't have to push." (Marketing Week, 2002).

2.3   Website Experience

Since the same marketplace drivers of commoditisation and saturation, that fuelled this conceptual shift in the offline world, are extant in the online world, common sense would lead to similar conclusions about the *importance of online customer experience* in driving value creation. In fact, studies have shown that the effect of these marketplace drivers is heightened by consumers' overall online experience. A positive customer experience online is therefore not only of critical importance to driving value but that experience, *where competitors are a mouse-click away,* has to be skilful enough to convert to purchase, or consideration of purchase, an empowered, informed, increasingly sceptical, and certainly skittish consumer.

As internet penetration becomes mainstream, its impact goes beyond the easy provision of commercial information. As Urban (2005) makes clear, customers have gained *'new power in buying decisions'* – a critical mass of consumers posting *online* can make or break a company's reputation or product launch,

offline, in a nanosecond. Tackling the 'wisdom of crowds' now has to be an essential component in any online and offline marketing strategy.

Overall, online customer experience is thus extremely powerful – peer-to-peer transmission can support a brand or become its nemesis. One of the primary mechanisms for constraining the deleterious effect of information transparency is the Company sponsored website [CSW] (Karson and Fisher, 2005). These sites are islands in the eddies and flows of online information and search and are used by marketers as advertising beacons - *"impersonal communication designed to promote the product offerings of an identified sponsor"* (Karson and Fisher 2005:3). They are seen as a singular opportunity to supply a vast store of information, with the option of a product or service delivery, in a context where the interactivity and flexibility of the medium allows direct, personalised communication, synchronised to real-time demands of consumers. These Company sponsored websites stand as *proxies for the brand or retail store*; they are designed to *"to generate and reinforce positive brand and product messages, and have become a primary source of information for consumers whether they purchase on- or offline"* (Karson and Fisher, 2005:3). As such, the performance of these websites, or rather consumers' perception of the performance of these websites, profoundly affects the evaluation of the websites' sponsors. The reviewer's research study (2004) with AOL (UK) and the Henley Centre revealed that 61% of the UK's researchers and purchasers would, as result of a poor experience at a commercial [company] website, be less inclined to purchase from that company.

Consumer experience online is as potent a force as its offline counterpart. The key question for marketers is therefore how to construct a website experience that actually delivers on the brand and product objectives articulated above by Karson and Fisher (2005). One might equally argue that the key question for academics is how to conceptualise that website experience, thereby creating a replicable framework that might be empirically tested in order to provide a robust solution for practitioners who are marooned in a world of laborious and expensive trial and error.

2.4   The Importance of Engagement

2.4.1   *The Practitioner Perspective*

While some argue that academia is an "incestuous closed loop" (Hambrick, 1994, cited Rynes, Bartunek, and Daft, 2001), others point to increasing academic-practitioner collaboration (conferences, consultancy, executive

education) and to the gradual, but observable, diffusion of academic insights into marketing practice.

The resultant strategies employed by marketers to sway consumer behaviour online appear to owe much to the tacit internalisation of Vargo and Lusch's (2004) Service Dominant Logic marketing paradigm. Notably, two of the fundamental propositions of that paradigm (FP_6 and FP_8) mirror (rather than describe an optimal state) the relational exchange process on the internet. FP_6 states that the customer is always the co-creator of value; online, the consumer is active: the smallest act of configuring a website to suit his or her needs is a step in the co-creation of a brand experience. FP_8 states "interactivity, integration, customisation, and co-production are the hallmarks" of the new customer relationship (Vargo and Lusch, 2004:11). Interactivity, customisation, and co-production are the essential properties of the online medium. The dilemma for online marketers is not the decision when to employ these properties, *since their employment by default is inherent in the nature of the medium*, but how, and to what extent, such properties should be utilised.

The full utilisation of a brand property on the web can only happen if the consumer is happily complicit in the process. Marketers categorise the mechanisms by which cost transparency is counteracted, and online consumers are enticed and co-opted through the use of "interactivity, integration, customisation, and co-production" into corporately profitable attitudes and behaviours, as processes of inducing *engagement.*

Engagement is not only important in rectifying the asymmetry of the relationship between empowered and informed consumer and marketer; it is the *only mechanism* available to OEM (Original Equipment Manufacturer) brand sites, devoid of an e-commerce component.

OEM brand sites simply have less functional capability than retailer sites to drive customer retention. Bart et al (2005) point out that a *"firm's website could be viewed as a store from the standpoint of building consumer trust".* Trust in the website, *although mediated by existing brand strength,* is essentially equivalent to trust in the store. Therefore the performance of the transactional mechanics (essentially, e-service quality and security), and the information content related to those transactional mechanics, will play a huge role in customer trust and loyalty: those mechanics stand as proxy for the promise of the store brand. To use a Cartesian analogy, in effect, stores and their e-commerce equivalents *serve, therefore they are.* We know from Haubl and Murray's (2002) work that *"cognitive lock-in"* derived from customer participative familiarity with, and appreciation of, those very transaction

mechanics plays a significant role in raising switching barriers and in driving trust and customer retention.

OEM brand sites without an e-commerce component, which are primarily used for research when the need arises, must therefore explore configurations of other drivers to attempt to induce the same kind of 'cognitive lock-in'.

The search for such configurations has become more urgent in that OEM brands, with an intermediated relationship with their customers, are increasingly under threat from retailers and retailer brands. They are squeezed from all sides. Under pressure from increasing consumer volatility, operating in, at best, monopolistically competitive and, at worst, oligolopolistic markets, their costs of supply are rocketing and their customer relationships are being displaced by powerful retailer rivals, who have forged strong personalised consumer relationships using reward schemes and the mining of shopping data[2]. The displacement of the manufacturer's brand by the retailer brand is deemed so problematic that an IBM Consulting Services white paper (2003) projected a "disaster scenario" where "Growth is dead and retailers win".

OEM online marketers are thus enjoined by the academic community to utilise the inherently interactive properties of the internet, in order to practise what The Harvard Business Review, Breakthrough Ideas for 2005, calls "dialogue marketing" - a chance to talk directly to their customers, to establish relationships, to create customer experiences that enhance the brand, while minimising the issue of channel conflict – in effect, to create what their practitioner peers would call online *engagement.*

However, if engagement is to be more than rhetorical expression denoting 'something must be done', then there has to be some consensus as to its precise meaning. Cognisant of this fact and charged with the task, the US Advertising Research Foundation (ARF) deliberated for a year and came up with *"Engagement is the turning on a prospect to a brand idea enhanced by the surrounding context"* (March, 2006). This definition was generally derided at the time for what was previously thought to be an impossible combination of vagueness and obviousness, and its inadequacy was compounded by inoperability: "there is movement toward determining just what is meant by engagement as a metric. Right now, it's like stirring a stale cup of coffee: there is motion but it's not improving the flavour" (Media Post, May 2006).

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[2] The costs of supply or the "rules of engagement" as one supplier put it, account for some 15-25% of sales revenue (Marketing, 2004).

In the author's view while the ARF's definition is flawed, it does at least attempt to capture the practitioner community's assertion that engagement represents the positive online interaction, or dialogue with the brand in a computer-mediated environment. The brand, being the 'experiential' representation generated by a mechanical infrastructure, is, in effect, the "ghost in the machine". To date, lacking an improvement on the ARF contribution, marketers do not possess a categorical definition of engagement that lends itself to predictive quantification.

Does the academic world provide a solution?

2.4.2   The Academic Perspective

Most marketing academic literature tends to sidestep the subject of engagement. However, Sawhney et al (2005) use it as a proxy for *consumer opt-in to the brand experience online*, a perspective analogous to that of the practitioner. By engaging with customers, companies can establish "direct, persistent, and interactive dialogue"…"more richly, broadly and speedily" and, more specifically, companies can drive innovation by fostering a brand-consumer collaborative process through the medium of engagement. Three recent studies (Wang, 2006, Marcie, 2006, Rappaport, 2007), to the author's knowledge the only studies to date, have specifically focused on engagement. This is, perhaps, testament to a belated academic recognition of the need to address an issue that is considered by practitioners as being vital to the maintenance of competitive advantage but it is also an initiative that is conceptually vitiated in these papers by the adoption of the ARF's definition of engagement. Chapter 5 addresses this issue in detail.

It is not the case that the marketing academic literature is insensible of such an "entity" of engagement; it is rather that the concept has been subsumed into philosophical approaches to the ontology of website experience. Indeed as Demangeot et al (2006) observe, for a medium that is capable of providing such a rich and intense experience, the majority of studies tend to use a positivistic, causal, and quantitative approach, with an emphasis on the "utilitarian and rational". The Demangeot et al study (2006) appears to be the only work so far that adopts a qualitative approach in order to provide a rich and complex perspective on "experiential intensity".

The fact that academic marketing literature has lagged behind on entertaining the very concept of engagement, is thus less important as a statement of fact, than a reflection of an ontological debate. With enhanced knowledge about online consumer behaviour and its interaction with increasingly more sophisticated website technology, more academic studies are adopting the

ontological perspective that the website is more than the sum of its constituent parts (Petre, Minocha and Roberts, 2006) and are emphasising that the consumer's subjective perception of *website brand experience* (Ha and Perks, 2005) is distinct from the experience of the mechanical heuristics of the website (website experience). As the 'experientialist' paradigm, *'value in use'*, seeps into online academic literature, so the academic perspective moves conceptually closer to that of the practitioner.

The process of understanding and dissecting that ontological debate provides the conceptual rationale for a research model of engagement. As the practitioner might say of the resolution of academic estrangement: the more that is understood, the more that is forgiven, ("tout comprendre, c'est tout pardoner").

2.5   The Ontological Debate

Most of the studies concerned with website experience are, understandably, concerned with identifying and, in some cases, calibrating the website drivers that are associated with desirable (profitable) consumer attitudinal and behavioural outcomes. Most provide empirical validation that website success (in terms of resultant consumer attitudes and behaviours) is dependent on the satisfactory inclusion, implementation, and manipulation of certain website drivers.

However, one could argue that the inadequate treatment of "experiential intensity", rather than being intentionally a "poor relative", is simply a consequence of certain philosophical approaches to the concept of *website experience.* Accordingly, academic sources on website experience tend to fall into three categories, as discussed below. The first group addresses website experience in mechanistic, reductionist, terms, where consumer experience is expressed only terms of response outcomes to specific drivers, usually focussed on the "utilitarian, rational elements of shopping" such as website usability or ease of navigation (Demangeot et al, 2006:326) or on the specific properties of the computer mediated environment, such as flow or interactivity.

The second group, usually more recent studies, assume implicitly that website best practice is (a) better identified and (b) more widely adopted (a not unpersuasive argument given the publication of Microsoft's usability guide, which codifies and formalises best practice, cited by Venkatesh and Argawal, 2006). These studies therefore adopt a more holistic approach and examine consumer attitudinal and behavioural outcomes from the point of view of overall customer experience, underpinned by the ontological perspective that

the website is more than the sum of its constituent parts (Petre, Minocha, and Roberts, 2006). The analysis is correspondingly conducted from a quasi - phenomenal perspective, where the consumer's subjective perception of, for example, "website brand experience" becomes the benchmarking unit (Ha and Perks, 2005) or awareness of pleasure is correlated with website success (De Wulf, Schillewart, Muylle and Rangarajan, 2005). Studies that look at consumer online experience as a tiered response to functional and symbolic website attributes form a sub-group of this holistic approach (Chang, Simpson, Rangaswamy, and Tekchandaney, 2002, Coupland Chang et al, 2003).

The third group adopts a hybrid and a more comprehensive stance, *explicitly or implicitly,* using the S-O-R (Stimulus, Organism, and Response) framework as conceptual support. The S-O-R model, derived from environmental psychology, sees experience as being made of three components or, as Karl Popper would argue, three worlds[3]: (1) the website - its infrastructure and physical components, (2) consumers's internal states – their experiential response to 'website stimuli', their extant intrinsic 'psychographic' state *i.e. legacy response to brands, propensity to trust, degree of risk aversion and the effect of their socio- demographic and cultural context* and (3) the outcome of the interaction of physical (website) and mental (internal) properties–website and brand approach and avoidance attitudes and behaviours. Such studies include the works of Eroglu et al (2001 and 2003), Sautter et al (2004), and Bart et al (2005).

For Eroglu et al (2001) it is axiomatic that the online world will emulate the offline world: that website drivers will replicate offline stores' "atmospheric cues" and will therefore affect the consumer's cognitive and affective internal state and, in turn, attitudinal and behavioural shopping outcomes. Their 2003 study, using the S-O-R model, empirically validated that online atmospherics, defined as high and low task relevant cues, affected consumers' internal states and, as a consequence, shopping approach/avoidance behaviours. High task relevant cues were defined as those critical to utilitarian objectives, such as "descriptions of the merchandise, price, terms of sale, delivery and return policies" (Eroglu et al, 2003:142); low task relevant cues were defined as those related to hedonic goals: "typestyles and fonts, animation, music, sounds, entertainment" – cues unrelated to the products for sale. This analysis was

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[3] The S-O-R paradigm is, in many ways, analogous to Karl Popper's resolution of problem of 'objective' knowledge (Knowledge and the Body-Mind problem, 1994) where he postulates that there are three worlds: (1) the physical world "the first world" – the world of physical bodies (2) : "the second world": the world of mental states; and (3) the third world, which represents the outcome of the interactions between world 1 and 2, and comprises "products of our human minds".

refined by Sautter et al (2004) who added the *"operator environment"* and the specific properties of the online medium (e.g. interactivity, social elements such as shopping avatars or forums) to the 'Stimulus' component, and *telepresence* to the 'internal states' component. Bart et al (2005), while specifically concentrating on website drivers of trust, contributes to knowledge by exploring how responses to trust drivers are mediated 'internally' by consumer's perception of the brand's strengths, brand reputation, by product/website category involvement, and their own socio-demographic and psychographic baggage.

The environmental psychology model, advocated by Eroglu et al (2003) and refined by Sautter et al (2004), to date, appears to explain best the parameters of website experience. It unifies behaviourist causality with "the mental acts surrounding the act of consumption" (Holbrook and Hirschman, 1982, cited Demangeot et al, 2006:334). By incorporating the interplay between the drivers embedded in the website and the properties of the operating environment, the model is also able to host the concept of tiered consumer response.

That engagement is hypothesised at the start of this review as the end stage of a tiered experiential response to environmental and website stimuli is in part based on the broad sweep of literature incorporated in the Scoping Study and replicated here in the review in Chapter 2. The first stage of these three stages is the perception of interactivity in the medium and on the website (Sicilia, Ruiz, and Moneta, 2005). In the second stage, as interactivity leads to greater information processing, the consumer experiences a state of flow (Hoffman and Novak, 2000, Sicilia et al, 2005). The third stage, beyond immersion with and mastery of the heuristics of the website, is the state of engagement with the brand as personified by the website, the holistic customer experience, the essential *zeitgeist* of the website. This conceptual framework also, at least initially, passes the Eisenhardt (1989) test. Payne and Frow (2005) cite Eisenhardt's (1989) view that "conceptual frameworks are based on combining previous literature, common sense, and experience". The definition is at least consistent with experiential logic, and the author's own experience working as consultant to AOL(UK) and her involvement with two research studies with AOL, the most recent study investigating the drivers of engagement, suggest that this definition has preliminary validity.

This definition of *engagement,* hypothesised in this review as the final output of a tiered consumer response, also helps to resolve an important issue. As mentioned, much of the early empirical work on website experience, simply due to exigency, dealt with codifying and creating a typology of website drivers

that induced profitable consumer outputs. As codes of website best practice became established, it became apparent that the mere clinical adoption of best practice was insufficient. However, the precise configuration of symbolic and functional elements of the website that conveys *the passion of the brand and "speaks' to user* is extremely elusive. This optimum configuration *drives consumer engagement* and it is the purpose of the subsequent systematic analysis of the evidence to provide a prima facie case for the conceptual model of engagement and by doing so to enable the drivers of *engagement* to be identified and grouped and tested by further empirical research.

2.6   Research Model and Working Definitions

The research model adopted for this review is adapted from Sautter et al's (2004) model (Figure 2)

FIGURE : RESEARCH MODEL

Stimulus	Organism	Response
Environmental Cues Virtual Store/ OEM site Operator Environment	**Internal States** Stage 1 Interactivity ↓ Stage 2 Flow ↓ Stage 3 Engagement	**Shopping/ Researching Outcomes** Approach Avoidance **Attitudinal Outcomes** Trust Satisfaction Affective Loyalty Advocacy

Mediated by Shopper/Researcher Motivation
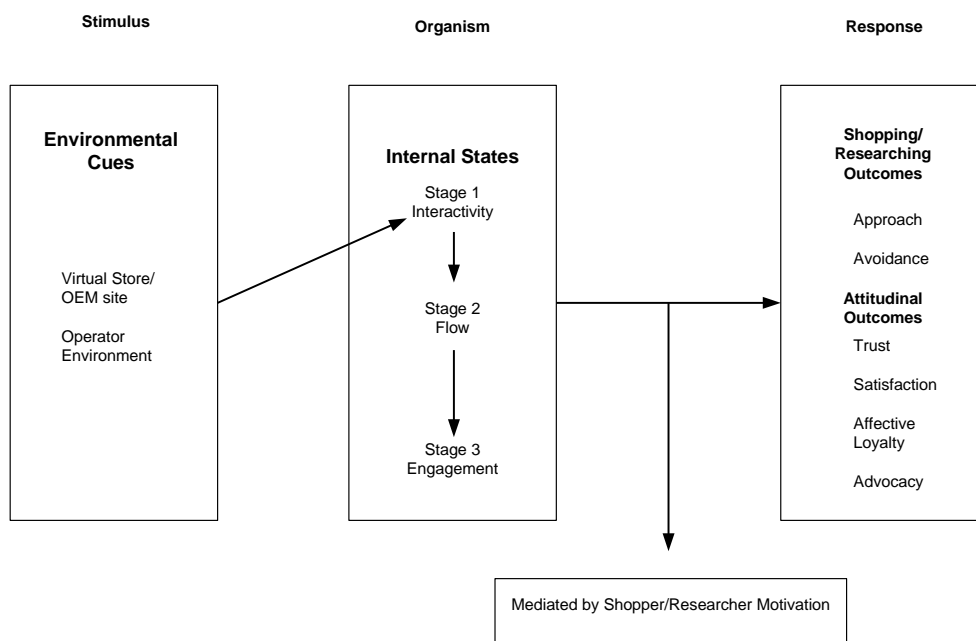
The model is predicated on two working definitions:

Consumer Website Experience is the product of an exposure to a dual environment, that of the online medium in which the website is located and its specific properties and the mechanics and heuristics of the website itself. That experience is shaped by the consumer's specific responses to environmental and website stimuli and is moderated by the consumer's own internal states (including but not limited to, personal characteristics, innate attitudinal and behavioural predispositions, prior familiarity and exposure to the website and to the brand personified by the website).

Online Consumer Brand Engagement *is a specific type of experience. It is the mechanism by which consumers form (opt into) a cognitive, affective, and behavioural relationship with the brand, as personified by the website or other computer mediated entities that interact with consumers. It is the final stage in a tiered spectrum of involvement that ranges from interactivity (the capturing of attention), to flow (cognitive immersion in the heuristics of the medium and the website) to a cognitive, affective and behavioural interaction with the conceptual, experiential manifestation of the brand, generated by the dynamics of the website.*

2.7   Research Question and Propositions

This review is conducted according to the principles of a realist synthesis, discussed in detail in Chapter 3. Using this methodology, the review will test the conceptual framework (2.6) and will iteratively confirm or disconfirm its integrity. As Pawson (2004:24) points out, as this happens a change will occur and the review will progress "from framework building to framework testing and from theory construction to theory refinement".

For that to happen the research model must be distilled into a research question and that question deconstructed into a number of propositions that can be tested against the evidence.

Accordingly, the research question that will be the subject of systematic interrogation is:

"Is consumer online brand engagement a sustainable intermediate variable, independent of 'flow' and 'interactivity', between the website drivers of consumer experience and consumer attitudinal and behavioural outputs?"

For that question to be answered in the affirmative, the evidence must also sustain the definition of *'engagement'* set out in Section 2.6. The term e*ngagement* will be used in the balance of this review, and unless otherwise stated, refers to *online consumer brand engagement*.

Therefore, the research propositions addressed in the review are as follows:

P1: That interactivity, flow, and engagement are discrete (not substitutable) experiential properties.

P2: That these properties interact in a hierarchy of effects, an experiential sequence, with interactivity proving an antecedent to flow and flow, a precursor of 'engagement'.

P3: That engagement is the cognitive and affective mechanism by which consumers make sense of the 'whole' of the website, interact with the brand as personified by the website, and the mechanism by which consumers give meaning to the whole experience.

P4: That there is a relationship between engagement and optimal consumer attitudes and behaviours.

3   SYSTEMATIC REVIEW: RATIONALE, STRUCTURE AND PROCESSES

This chapter covers the rationale for a systematic review and details the methodology adopted. Much of the content of this chapter formed part of the original scoping study. The chapter indicates where practice deviated from intended strategy.

3.1   The case for systematic review

In many respects, the evidential case for replacement of the narrative review by the systematic review represents a discontinuous change in management and social sciences thinking. According to the emergent paradigm, traditional literature reviews lack rigour. Narrative voluminousness frequently tends to obscure lack of critical appraisal, leading to contradictory and biased output that is (or should be) unsustainable in a "network and knowledge-based economy" (Tranfield, Denyer and Smart, 2003:208). The relevance of such reviews is thus inevitably compromised and is untenable in an academic tradition that views scholastic output not as self-referentially arcane, but as perforce, primarily, providing "best evidence" as part of "insights and guidance for intervention into the operational needs of practitioners and policymakers" (Tranfield et al, 2003:208).

In a systematic review, the objective is to synthesise extant research evidence in a manner that is "systematic, transparent, and reproducible" (Tranfield et al, 2003:209). A narrative review may purportedly tell you all you wish to know about a subject but its selection of sources, both in scope and quality, makes it vulnerable to the charge of epistemological and methodological bias. For the more ideologically inclined in the social science field that bias might even be desirable, but for those who adopt a more pragmatic approach, and who aim to 'unite policy and practice', the implementation of a standardised protocol designed to "minimise bias and error" (Tranfield at al, 210) and the explicit provision of an audit trail, provide reassurance, for academic and practitioner alike, that the review of the evidence is "fit for the purpose". As Pettigrew and Roberts (2006) make clear, the manner in which systematic reviews are conducted is aligned firmly with the objectives of any academic research or scientific study, which is to further knowledge by identifying a gap in the extant literature or by disconfirming a particular orthodoxy. Pursuing a literature review systematically, via a transparent process, forcing a reviewer to

confront their own ontological paradigm "allows a challenge to the [existing paradigm] to occur – a challenge permitted by close examination of the underpinning evidence" (Pettigrew and Roberts, 2006:20). That explicit 'testing' of the extant evidence allows the best case for any management issue or management theory to be put forward with some degree of authority.

The provenance of the systematic review lies in the medical field. Tranfield et al (2003:212) observe that there are substantive differences between the medical and management disciplines. Medical research is convergent and "enjoys considerable and extensive epistemological consensus"; management research tends to be divergent, epistemologically and methodologically heterogeneous, and is occasionally, (and perhaps should be) characterised by a robust lack of consensus. The question of how to address the synthesis of that research heterogeneity in the management field, and, in particular, the inclusion of qualitative studies, throws up a methodological debate. Research synthesis, the mechanism by which reviewers can aggregate, summarise and integrate different studies on a particular research question, (Tranfield et al, 2003) can be conducted by, for example, narrative synthesis, meta-analysis, realist synthesis and meta-synthesis. The adoption of a specific synthesising methodology and the rationale for that adoption is not necessarily a priori decision that can be made in a scoping study. After aggregating the evidence and appraising the methodological challenges (itemised in Section 3.2), this reviewer adopted a realist synthesis approach. The rationale for such an approach is also given in Section 3.2.

Marketing, as a discipline, tends to adopt a pragmatic, positivist, and quantitative approach. Given that the inception of systematic review was initially grounded in "the positivist and quantitative tradition" (Tranfield et al, 2003:212), one would expect an extensive take up of the methodology in the marketing discipline. To date, in the UK, adoption appears to be confined to the social marketing school, embodied in the National Social Marketing Centre, which is closely aligned to government policy and whose strategic partners are the Department of Health and the National Consumer Council (http://www.nsms.org.uk). A search of "systematic review" AND "marketing" in Proquest and Google Scholar (for triangulation) turned up only one other report that characterised itself as a systematic review and explicitly adopted the established protocol.

However, it does seem that an evidence-based approach, which focuses on delivering the most robust thinking on a particular issue or rigorously tests current orthodoxy to ensure that it is indeed "fit for the purpose", is particularly appropriate for a discipline frequently seen by its practitioners as a

set of heuristics that can be used to modify consumer behaviour for the benefit of commercial enterprises. Since marketing is often viewed, somewhat mechanistically, as an eclectic toolbox, then the practice of systematic review is a useful mechanism to scrutinise those tools and the manner in which they are used, whilst at the same time the very transparency of the inquiry makes the reasoning and rationale accessible to the practitioner.

3.2 Methodological Challenges

The review posed a number of methodological challenges

1. The scoping study had identified that there was no satisfactory extant working definition of *online consumer engagement in the context of consumer interaction with brands*. However, it had done so in an unsystematic manner. Accordingly, an exhaustive and eclectic search of the literature, across a wide range of disciplines (some 3,548 papers) was required to underpin that assertion. The bibliographic database search was also triangulated by the use of Google Scholar. Despite the industriousness of the reviewer's search, the caveat of "to the author's knowledge" still needs to be appended to the original assertion.

2. The heterogeneity of evidence base required a methodological response. The evidence base ranged from quantitative and qualitative academic studies, theoretical work, industry research (the methodological limitations of which are not usually exposed to scrutiny), industry comment and newspaper/magazine editorial. Traditional meta-analysis of outcomes is therefore not suitable for these sources. According to McCormack et al (2006:15), realist synthesis is particularly appropriate for synthesising "plural forms of evidence that are generated through complex interactions between processes (mechanisms)". Additionally, since the aim of this review is to contribute to theory, a realist synthesis, which adopts an *"explicitly theory-driven approach to the synthesis of evidence"* (Pawson, 2004) was considered 'most fit for the purpose'.

3.3   The Review Process

The staging of the review process is illustrated by Table 1

TABLE : THE REVIEW STAGES

STAGE 1: REVIEW PLAN	Form review panel
	Map the field of study
	Produce a review protocol
STAGE 2: IDENTIFY AND EVALUATE STUDIES	Conduct systematic search
	Evaluate studies
STAGE 3: EXTRACT AND SYNTHESISE DATA	Conduct data extraction
	Conduct data synthesis
STAGE 4: REPORTING AND DISSEMINATION	Report findings
	Inform Research
	Inform Practice

Source: Adapted from Tranfield, Denyer, Marcos and Burr (2004), Tranfield, Denyer, Smart (2003) and Centre for Reviews and Dissemination, University of York (*http://www.york.ac.uk/inst/crd/report4.htm*)

3.4   The Review Panel

The purpose of the review panel (Table 2) is, through its expertise, to inform and assist the reviewer and to provide any necessary corrective advice to reduce error. The panel was chosen to provide theoretical and methodological expertise on the various constructs to be examined in the review. The panel was an informal group of councillors and information was mostly sought and given according to need. Given that "engagement" is a term more prevalent in marketing practice, practitioners were an essential component of the consultative group.

Professor Hugh Wilson, as my supervisor, was both supportive and assiduous in providing expert counsel and recommendations in terms of evidence selection. Both Professor Simon Knox and Dr Stan Maklan provided useful comments as to the possible direction of the investigation and important source suggestions. Heather Woodfield's excellent library training was put to very good use. The library at Cranfield University sourced certain documents that were not available online. Dr David Denyer provided the expertise on the systematic review method. His lectures and workshops shaped the design of this review. His excellent online Systematic Review Portal, (http://www.cranfieldonline.com/C7/C2/Systematic%20Review/default.aspx) proved an invaluable source of help and reassurance mid-review.

From the practitioner community, Andy Jonesco (BSkyB) proved to be a constructive critic of the ideas in this review. Andrew Bradford of AOL (UK)

gave me invaluable commentary on the current practitioner status on engagement and the reviewer is indebted to Ashley Friedlein, CEO of E-Consultancy.com for kindly providing full access to their 2007 Customer Engagement Report.

TABLE : REVIEW PANEL

Person	Title	Role
Hugh Wilson	Professor of Strategic Marketing, Cranfield	Supervisor
Simon Knox	Professor of Brand Marketing, Cranfield	Advisor on Brand Strategy and Customer Loyalty
Stan Maklan	Senior Lecturer in Strategic Marketing, Cranfield	Advisor on Internet experiential research: flow, interactivity
David Denyer	Senior Research Fellow, Cranfield	Advisor for Systematic Review
Heather Woodfield	Social Science Information Specialist, Cranfield	Advisor for Literature Search
Andy Jonesco	Director of Digital Strategy, Sky	Advisor for Internet Strategy issues from a practitioner perspective
Andrew Bradford	Head of Operational Planning, AOL UK	Advisor for Media and Market Research from a practitioner perspective

3.5 Personal Statement

My interest in the concept of 'engagement' came about from my MBA dissertation and the two practitioner studies that I conducted as a consultant with AOL (UK). I have been concerned throughout my professional career with the innovative solution of marketing and advertising problems. What my academic career and the training at Cranfield has taught me is that in order to solve problems in way that is generalisable, replicable, and robust the theoretical assumptions behind the solutions have to be made explicit. The methodology of the systematic reviews mirrors this journey.

3.6 Search Strategy

As Glanville (CRD 4 report) puts it, "the thoroughness of the literature search is the one factor that distinguishes systematic reviews from traditional reviews". The validity of the review is, in many respects, dependent upon the comprehensiveness and rigorousness of the search. A search results flow chart is depicted in Figure 3.

3.6.1   *Keyword Search*

The search strategy itself had a number of stages. First, a number of keywords were identified. The keywords were derived from (a) mapping the field and thereby identifying the base component constructs – the papers elicited by this initial search provided further keywords (b) brainstorming with peers, practitioners and my supervisor and (c) a number of key papers recommended by my supervisor and the panel.

These keywords were be configured into search strings, which ranged on an iterative basis, from the most basic configuration to the more complex, in order to reduce sensitivity and improve precision where necessary. Keyword searches were mostly confined to *title and abstract* or *abstract only*. In certain cases, such as the keyword *'engagement'*, due to the paucity of academic literature on this issue, searching was conducted on *full text* entries.

All keyword searches on the electronic citation databases were triangulated and supplemented (in scope and in method) by searching on Google Scholar. First, because, as Glanville (CRD 4) puts it, "There is always a risk that relevant publications may be overlooked in electronic searching due to inaccurate or incomplete indexing in the databases" and secondly because the reviewer asserts that the search engine on Google Scholar is, in some ways, superior, particularly on 'phrase' searching, to that of the more established academic databases: its algorithms also facilitate a more eclectic search. This proved to be the case, as the most significant articles speculating on the relationship between the three constructs, interactivity, flow, and engagement, were found, using phrase search[4], via Google Scholar, as were the most recent articles, specifically on engagement.

Table 3 illustrates the original search design - keywords, their relationship to the most important constructs and search strings. The only, though significant, modification was grafting of the conceptual fields **+INTERACTIVITY, +FLOW, +ENGAGEMENT**, to the original search strings, after the first iterative searches delivered unwieldy results. This had the advantage of delivering more manageable results and by creating conceptual clusters of evidence, aiding the final synthesis.

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[4] For example: 'interactivity as an antecedent of flow', 'engagement, and flow and interactivity and brand'.

FIGURE ; SEARCH FLOW CHART

Databases Search conducted on abstract,

Potentially relevant studies, contingent on the inclusion/exclusion criteria, identified according to keywords itemised in Scoping study
N=2395

Potentially relevant studies in LISTED JOURNALS, contingent on inclusion/exclusion criteria, identified according to keywords itemised in Scoping study
N=1153

Databases Search conducted on abstract,

Abstracts scrutinised. Studies excluded if not directly relevant to theoretical areas under investigation
N=371 (15%)

Abstracts scrutinised. Studies excluded if not directly relevant to the theoretical areas under investigation
N=129 (11%)

Databasel Academic Studies for review excluding duplicates
N=(500-163)=333

Google Scholar Search based on 'conceptual phrases'. Studies excluded if not directly relevant to the theoretical areas under investigation
N=(3800-3705) =95

Email Alerts related to Keyword Search
N=10

Potential Number of Academic Studies For Review excluding duplicates
N=(438-77)=361

Academic Studies evaluated in detail, minus duplicates. Studies excluded if not directly relevant to the Review Question and sub-Questions
N=(361-296) =65

Practitioner Articles from keyword Database Searches, + Studies - studies excluded if not directly relevant to the Review Question and Sub-Questions
N=9

**Google Scholar: Articles searched for iteratively by hand searching, citation references during the course of the review
N=6**

Articles from the Scoping Study
N=66

Total Number of Sources Used in the review (excluding additional sources) **N= 74**
Total Contributing Sources used
N=146

24

TABLE : CONSTRUCTS, KEYWORDS, AND SEARCH STRINGS

CONSTRUCT	KEYWORDS	PRINCIPAL SEARCH STRINGS
Website Experience	website experience, website quality, web site performance, website categories	Website experience Website experience AND website categories Website experience AND (website quality OR website performance)
E-commerce experience	internet shopping, online consumer behaviour, e-service, buying behaviour, online shopping, electronic commerce, e-business success, online purchase; electronic retailing,	Electronic Commerce AND (online consumer behaviour OR buying behaviour OR online purchase) (Electronic Commerce OR Electronic retailing) AND e-business success (Electronic Commerce OR Electronic retailing) AND e-service Online consumer behaviour AND e-service
Website Drivers	website design, website interface, usability, website characteristics, website atmospherics	(Website Design OR Website interface) AND Usability Website Characteristics OR Website Atmospherics
Consumer interaction with online environment	flow, interactivity, telepresence, flow theory, flow experiences	Flow AND (Telepresence OR Flow experiences) Interactivity AND (internet OR online)
Consumer interaction with website	web site pleasure, website success, user based design	Website pleasure OR website success OR user based design (Interactivity OR Flow OR Engagement) AND website pleasure OR website success
Consumer interaction with brand as personified by website	Brand experience, brand familiarity, brand image, brand personality, online consumer perceptions	Website AND (Brand* OR Brand experience OR Brand familiarity OR Brand personality) Website AND online consumer perceptions
Consumer Internal states	E-consumer behaviour, emotions, cognitive appraisal, affective	(Internet OR Online) AND (Consumer behaviour AND cognitive appraisal OR affective) E-commerce AND (Consumer behaviour AND cognitive appraisal OR affective)
Consumer outputs	brand trust, loyalty, advocacy, user satisfaction,	Internet OR Online AND (brand trust OR brand loyalty OR satisfaction OR advocacy)
Engagement	Engagement, online instruction, computer -based instruction, online learning, computer-mediated interaction,	Engagement AND (online instruction OR online learning OR computer-mediated interaction) Engagement AND internet AND (Brand OR Electronic Commerce OR Website experience OR Flow OR Interactivity) Engagement AND internet AND (Brand Loyalty, OR Brand trust, Brand Satisfaction OR Customer Advocacy

3.6.2 Other Search Strategies

Any review that purports to be systematic cannot confine itself to a single search methodology, however refined by expert help. The keyword search strategy was supplemented by using the same search strings in the major journals in the field. These included Harvard Business Review, California

Management Review, MIT Sloan Management Review, Journal of Consumer Marketing, Psychology and Marketing, Marketing Science, European Journal of Marketing, Journal of Marketing, Journal of Brand Management, and the Journal of Interactive Marketing.

Additionally, using ABI Proquest, alerts for the new editions of these academic journals were set up. The search strings were as follows: internet AND electronic commerce, interactive* AND brand, brand AND internet and consumer behaviour AND internet. As the number of citations generated by each alert is relatively low, the string parameters are purposely broad to ensure a comprehensive sweep of the most recent literature.

Where articles, identified by these alerts, were not available online, they were retrieved from the Cranfield University library. Before the application of the more rigorous selection data, ten papers were retrieved via this process.

3.6.3   Iterative Search

It is inherent in Realist Synthesis that iterative and opportunistic search, becomes part of the process as "there is a constant to-ing and fro-ing as new evidence both changes the direction and focus of searching and opens up new areas of theory" (Pawson et al, 2004:5). Somewhat late in the review process, an article on engagement tangentially touched on the subject of neuromarketing. Several references cited in the article were retrieved and this, in turn, lead to other references. The reviewer did not attempt to interrogate this field systematically: rather, the immediate references were used to add colour and context and to suggest possible avenues of future research.

3.7   Evidence Resources

3.7.1   Electronic Databases

The main citation databases used were ABI/Inform Proquest, EBSCO, and Web of Science (ISI Web of Knowledge). Cranfield's *Search, Find, and Extract* Service (SFX), drew in other databases, such as Emerald Full Text, Science Direct, Blackwell Synergy, and Wiley Interscience Journals.

Practitioner articles were also retrieved via the ABI/Inform Proquest and EBSCO electronic databases. The reviewer's opinion expressed in the Scoping Study was that since the review's objective was to provide a prima facie case for the adoption of engagement as a mediating factor and its incorporation into a conceptual framework, and engagement was a concept freely used in the marketing practice, access to practitioner thinking on the subject was essential to provide context and to critique the systematic investigation. While this

opinion is normatively correct, practitioner articles were disappointing in practice, since they accepted the veracity of the term 'engagement' without agreeing on definition and assumed that the relationship between engagement and consumers' positive affect towards brand was proven.

3.7.2   Working Papers, Conference Proceedings and Theses

Several online catalogues of working papers were searched, including the main UK business schools repositories and Birkbeck College's e-library (University of London) which documents a reasonably comprehensive list of management working papers held in academic facilities.

(http://www.bbk.ac.uk/lib/subguides/socialscience/management/discussion). The reviewer was unable to locate any papers that met the most rigorous search criteria.

The reviewer also searched the British Library's online Conference Collection (http://catalogue.bl.uk/F/?func=file&file_name=login-bl-list) and various theses databases, notably Theses.com which purports to provide a comprehensive listing of theses in British and Irish universities (http://www.theses.com/) and the UMI Proquest Dissertation and Thesis Service, which provides a worldwide, searchable and, in some cases, downloadable, service for the last two years (http://wwwlib.umi.com/dissertations/). The reviewer was also unable to locate any relevant work.

Relevant Conference proceedings (No=6), Working papers (No=4), and one relevant thesis were retrieved using the Google Scholar database. It is possible, since most of the sources in this group were dated 2006/2007, that the more conventional databases had not yet incorporated these studies or that the greater syntactical flexibility of Google Scholar facilitated retrieval.

3.7.3   Other 'Grey' Literature

Pettigrew (2006) defines grey literature as a literature "that is not obtainable through normal publishing channels". It includes reports published independently by academic and non-academic organisations, such as unpublished or preparatory academic work, occasional papers, reports on websites and informal publications, such as Marketing Blogs. In this category, two practitioner studies on consumer engagement proved highly useful to the review.

3.8   Selection Criteria

Once the studies were identified in line with the search strategy itemised above, the relevance of individual studies to the review was ascertained according to certain broad inclusion and exclusion criteria (Table 4). Each study selected fulfilled all (as applicable) of the inclusion criteria and none of the exclusion criteria.

At this stage, only relevance to the various conceptual themes was considered. However, as Figure 3 illustrates, the volume of documents remained unwieldy. Consequently, the selection was further refined to include only those papers that supported or refuted the review questions and sub-questions under investigation.

TABLE : INCLUSION AND EXCLUSION CRITERIA

Inclusion Criteria	Rationale
Academic papers in peer-reviewed scholarly journals, working papers, conference proceedings, and theses	Journal papers are the primary academic resource on the subject. Theses and working papers may provide the most recent academic research on the subject
Web literature and practitioner literature	Provider of industry research and evidence of the most recent conceptual thought and debate on the subject in the practitioner
All geographical regions, industries, countries of study, and populations	The review is not focused on a specific location, geography, population, or industry. To generate a conceptual framework, all prior contributions relevant to the subject must be assessed
No restrictions on study design or research tradition	All contributions must be considered for a conceptual review. The comparison between methodological approach and/or research tradition is likely to yield valuable insight
Studies making a seminal conceptual contribution to the review outside the timeframe itemised in the exclusion criteria	There are a number of landmark studies in this review that have made a substantial contribution to though on this subject: methodological flaws arising from the timeframe notwithstanding.
Exclusion Criteria	Rationale
Books	Because continual technological development alters consumers experiential intensity and capability to interact with the medium, most books on the subject are out of date at the time of publication.

Working Paper prior to 2004	It assumed that studies prior to this date are published in academic journals
Timeframe: studies prior to 2000, (UK restricted on sampling; all studies restricted on basis of lack of technology available in the early years of the internet to provide a truly immersive interactive, animated, consumer experience)	Early studies are weakened by restrictions on population adoption and technology adoption Consumer usage of the internet in the UK only reached the mainstream (60% of the population) in the year 2000, samples for empirical work, however randomly selected, are likely to be ABC1 (those with disposable income) and 'early adopters' and unrepresentative of the general consumer population. Rich media, and the means to enjoy it, (Broadband) was not generally available to most consumers until 2000. Before that, the internet was very much a '2D' print medium, with limited interactivity and animation, lacking in visual and aural intensity. The full palette of techniques to engage consumers was simply not available
Studies relating to the online business-business experience and trading	The subject of this review is about how to generate consumer loyalty to fmcg products in a computer mediated environment.

3.9   Study Quality Assessment

Quality assessment and synthetic method are not easily disentangled. Indeed, according to Pawson (ERSC working paper, No 1), the two should be combined in a manner akin to the analytic induction process *"rather than being cast in stone (otherwise known as a search protocol) as the first item in a systematic review, the question under investigation is identified and revised and then revised again {in the light of evidence} in cycles of analysis. Judgement on the pertinence and thus quality of evidence is never made statically"*.

The quality assessment of studies in this review had to (a) take account of the complex heterogeneity of evidence in the field (e.g. qualitative and quantitative reports, practitioner articles and research, conceptual papers and trade editorial comment) and accommodate the concept that (b) the object of the review is not, via synthesis, to aggregate data in order to *test* "what works" but to explore certain phenomena and by that exploration elicit, evaluate and generate "theory grounded in the studies included in the review" (Dixon-Woods, Cavers, Agarwal, Annandale, Arthur, Harvey, Hsu, Katbamna, Olsen, Smith, Riley and Sutton, 2006).

This review aimed to be an inductive, interpretive review falling within the confines of Noblit and Hare's categorisation of reviews, cited in Dixon-Woods et al (2006:2), As Dixon-Woods et all put it "Aggregative reviews are concerned with assembling and pooling data, may use techniques such as meta-analysis and require a basic comparability between phenomena so that data can be aggregated for analysis. Interpretive reviews see the essential tasks of synthesis as involving both induction and interpretation" with the aim of generating theory. While Dixon-Woods (2006) acknowledges that such an approach has hitherto tend to be confined to qualitative reviews, they assert that "it should in principle be possible even desirable to conduct interpretive syntheses of all forms of evidence since theory building need not be based only on one form of evidence".

The fact that rigorous quality checklists are applied to the more conventional aggregative reviews should not preclude interpretive reviews from transparent quality assessment, although as Dixon-Woods (2006) points out "there is little sign of an emergent consensus in this regard". The reviewer own inclination and policy was to adopt an eclectic, pragmatic approach to quality assessment using elements of Pawson's realist synthesis, Greenhalgh's "meta-narrative" method and Dixon-Wood's critical interpretative synthesis.

It was the intention that, in line with Dixon-Woods criteria, only empirical papers that were considered "fatally flawed" would be excluded from the review. In practice, only two papers, which were highly relevant, were methodologically suspect; while their empirical findings were ignored, their conceptual contribution to the debate was worthy of inclusion.

The criteria used for the quality appraisal of empirical papers can be seen in Table 5.

TABLE ; QUALITY APPRAISAL CRITERIA FOR EMPIRICAL PAPERS

Are the aims and objectives of the research clearly stated?
Is the research design clearly specified and appropriate for the aims and objectives of the research?
Do the researchers provide a clear account of the process by which their findings are reproduced?
Do the researchers display enough data to support their interpretations and conclusions?
Is the method of analysis appropriate and adequately explicated?

The next stage was to subject all the remaining evidence base to an iterative dialectic that focuses on, (1) whether the evidence is "fit for the purpose" (is there an internal coherence and consistency?) in effect, "does the research support conclusions drawn from it" (Pawson, 2004:29) and (2) the "contribution of the study to the emerging pattern".

As Pawson et al (2004) indicates, this process is not the "pooling of outcome scores" but "the connectivity of inferences". The contribution of any study to theory was evaluated, using Greenhalgh et al's (2005) mechanic (see Table 6).

TABLE : ASSESSMENT OF CONCEPTUAL CONTRIBUTION

Research Tradition	Is the paper part of a recognised research tradition? To what extent does it draw critically and comprehensively on an existing body of knowledge and attempt to build on that knowledge?
Academic Contribution	To what extent does the paper make an original and scholarly contribution to research into the field in question?
Seminal Contribution	Has the paper subsequently been cited as a seminal contribution by competent researchers in that tradition?

3.10 Data Extraction

A data extraction form (Table 7) was encoded in Endnote, to classify the evidence base and facilitate data synthesis. Apart from conventional bibliographic information, including abstract and keywords, the form consists of the following fields:

TABLE ; DATA EXTRACTION FORM

Methodology	Study Location
	Empirical or Theoretical
	Context/Industry Sector/Product Category
	Sampling
	Method of Data Collection
	Method of Data analysis (Quantitative or Qualitative)
Evidential Contribution	Research Question
	Research Hypothesis
	Research tradition/paradigm
	Theoretical assumptions/models
	Core concepts/research constructs
	Limitations
	Main findings
Quality Assessment	Relevance to the review (High, Medium, Low)
	Contribution to theory (High, Medium, Low)
	Methodological quality (High, Medium, Low)
	Overall Contribution (includes grey literature) (High, Medium, Low)
Inclusion/Exclusion	
Rationale for Exclusion	

In practice, this proved less useful in a conceptual review for data synthesis. Accordingly, a supplementary thematic analysis form (Table 8), as part of the data extraction process, was devised in Microsoft Access.

TABLE : THEMATIC ANALYSIS

Author
Definition of Construct
Drivers or Characteristics
Influence on consumers
Overall Findings
Analysis Gap (if any)
Data for Synthesis (confirm/refute)

3.11 Data Synthesis

Realist synthesis is an "explicitly theory-driven approach to the synthesis of evidence" (Dixon-Woods Agarwal, Jones, Young, and Sutton, 2005). According to Pawson (2004), what matters in the synthesis is the contribution to framework building, through the identification of patterns that at some stage "produce an explanatory whole that is greater than the sum of its parts" (Pawson, 2004). This process involves constant iteration where judgement of quality (relevance and rigour) comes into play, so that the included paper is judged fit for the "explanatory purpose". That judgement involves not merely the application of checklists, but also how the evidence is marshalled, the paradigm under which such marshalling is taking place and whether emergent theory is confirmed or displaced.

The thematic analysis form (Table 8) proved pivotal to the patterning of the data into "synthetic constructs"[5]. These are constructs (Dixon-Woods et al, 2006:5) "which are the result of a transformation of the underlying evidence into a new conceptual form. [They are] grounded in the evidence but result from an interpretation of the whole of that evidence and allow the possibilities of several disparate aspects of the phenomenon being unified in a more useful and explanatory way"

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[5] Appendix 8.6 presents a sample from the thematic analysis on 'flow'.

3.12 Summary

Table 9 illustrates the results of the search, selection, and quality appraisal process for the core of the systematic review. The Scoping Study literature provided the context for the review and the initial impetus for the conceptual model of engagement. A number of studies, which were iteratively retrieved late in the review, as result of emerging theory development, are also added to the final total.

TABLE : NUMERIC ANALYSIS OF EVIDENCE BASE

	Electronic Databases	Google Scholar	Email Alerts
Database Selection: Keyword Search + Broad Inclusion/Exclusion Criteria	2395		
Listed Journals: Keyword Search + Broad Inclusion/Exclusion Criteria	1153		
Sub-Total Keyword Search	*3548*		
Abstracts scrutinised; studies excluded if not directly relevant to theoretical areas	-3052		
Duplicates excluded	-163		
Sub-Total Database after first scrutiny and duplicate exclusion	*333*		
Google Scholar		3800	
Studies excluded if not directly relevant to theoretical areas		-3705	
Sub-Total Google Scholar		*95*	
Email Alerts: New papers from ABIProquest			10
Sub-total Academic Studies	*438*		
Exclusion of duplicates	-77		
Sub-total Academic Studies excl duplicates	*361*		
Academic Articles excluded if not directly relevant to review questions and sub-questions	-296		
Total Academic Studies used in Review	**65**		
Practitioner Articles	6		
PractitionerStudies	3		
Total Practitioner work used in Review	*9*		
Additional articles iteratively but not systematically searched	*6*		
Articles from Scoping Study	**66**		
Total number of articles used	**146**		

Evidence base: Descriptive Analysis

4 CLASSIFICATION OF EVIDENCE

4.1 Overview

The evidence base is grouped into the three main thematic 'clusters': interactivity, flow and engagement. The distribution of the evidence by journal attribution, date of article, choice of scholastic lens (conceptual or empirical), origin (academic or practitioner), and geographic location contributes to the overall analysis.

4.2 Evidence base by cluster and perspective

The three conceptual clusters are evenly represented. The significant difference is that while *Flow* and *Interactivity* are exclusively scholastic domains, the indifference of the marketing academic community to *Engagement* prior to this year (only 3 of the 12 academic sources are marketing papers – the remainder are devoted to e-learning) is immediately apparent.

TABLE : EVIDENCE BY CONCEPTUAL CLUSTER

Data by Conceptual Cluster	Academic	Practitioner
Interactivity	25	
Flow	28	
Engagement	12	9
Total	65	9

4.3 Distribution by Journal

If the aggregated evidence base (Table 11) is examined, it is apparent that a vast range of academic fields is covered.

TABLE : EVIDENCE BASE-ACADEMIC JOURNAL DISTRIBUTION

Journals	Abbr	Nos
Academy of Marketing Science	AMS	2
Advances in Consumer Research	ACR	1
Australian Journal of Educational Technology	AJET	1
Behaviour and Information Technology	BIT	1
Computers in Human Behaviour	CHB	2
Decision Support Systems	DSS	1
Digital Creativity	DC	1
European Journal of Marketing	EJM	1
Industrial Management and Data Systems	IMDS	1
Information and Management	IM	1
Information Systems Research	ISR	1
Information Technology and People	ITP	1
International Journal of Human-Computer Studies	IJHCS	2
International Journal of Retail and Distribution Management	IJRDM	1
Internet Research	IR	1
Journal of Advertising	JA	7
Journal of Advertising Research	JAR	5
Journal of Business Research	JBR	3
Journal of Communication	JC	1
Journal of Computer Information Systems	JCIS	1
Journal of Consumer Psychology	JCP	1
Journal of Consumer Research	JCR	1
Journal of Current Issues and Research in Advertising	JCIRA	1
Journal of Educational Psychology	JEP	2
Journal of Electronic Commerce Research	JECR	2
Journal of End-User Computing	JEC	1
Journal of Interactive Advertising	JIA	1
Journal of Interactive Marketing	JIM	3
Journal of Marketing	JM	1
Journal of the American Society for Information Research and Technology	JASIRT	1
Marketing Intelligence and Planning	MIP	1
Marketing Science	MS	2
Psychology and Marketing	PM	1
Qualitative Market Research	QMR	1
Conference Papers	CP	6
MA thesis	PT	1
Working Paper	WP	4
		65

If, however, one looks at the individual clusters, the pattern of distribution makes a comment on the scholastic – practitioner dichotomy. The academic articles on flow (N=28), very much a solipsistic, scholastic construct, are fairly even distributed across academic journals and, to a lesser extent, fields (Figure 4). The articles on Interactivity (Figure 5) show a clear bias towards the advertising field and there is a similar tendency in the marketing journals in

the Engagement cluster (Figure 6). This bias towards the advertising field is perhaps indicative of scholars responding to the rather vocal anxieties of the practitioner community regarding the effectiveness of marketing communication in an environment of cost transparency. The lack of academic investment in Engagement is also apparent, given that practitioner articles and studies (9) are a frequency outlier in this group.
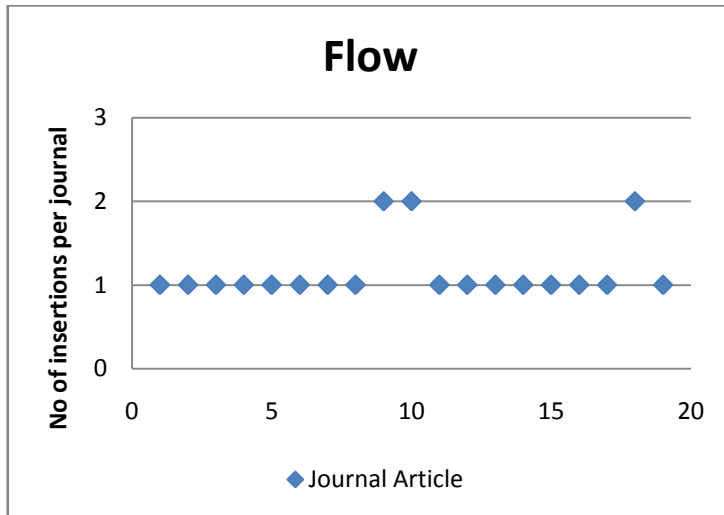
FIGURE : FLOW - FREQUENCY DISTRIBUTION BY JOURNAL

FIGURE : INTERACTIVITY - FREQUENCY DISTRIBUTION BY JOURNAL
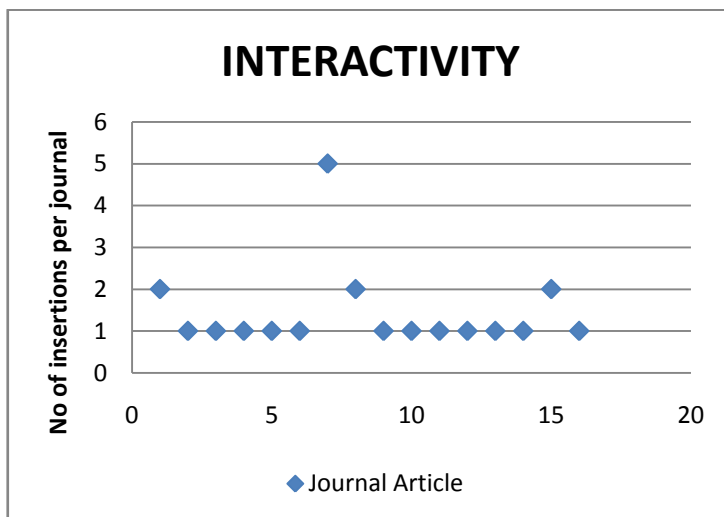
FIGURE : ENGAGEMENT - FREQUENCY DISTRIBUTION BY SOURCE
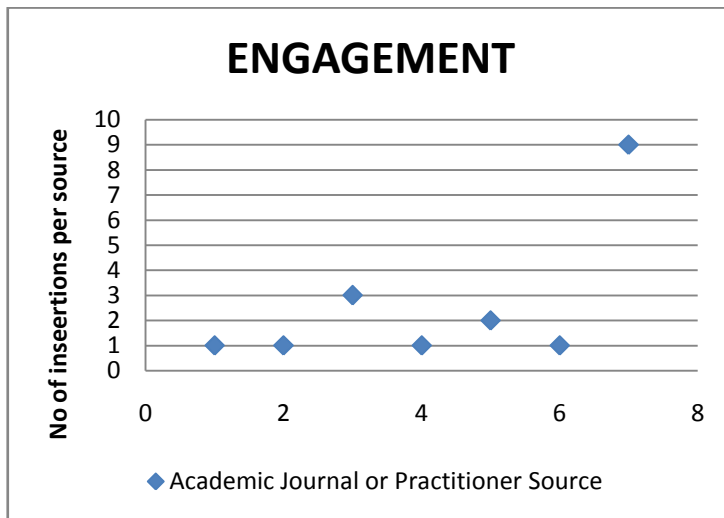
4.4　Articles by date

Examining article distribution by year of publication by thematic cluster is also more revealing than the aggregated distribution. The Flow cluster shows a relatively even distribution, as does the Interactivity cluster; the Engagement cluster (Figure 7), which includes practitioner and academic sources, shows a marked skew towards 2006. In fact, this reflects the intensity of attention devoted to the construct by marketers at this time (the ARF definition was released in March of that year); the academic response, specifically focusing on engagement, only appears in 2007. The e-learning corpus of work, which features engagement, largely tangentially, is evenly distributed between the years 1998-2005. It is interesting that the marketing academic world has, until this year, been seemingly so indifferent to this issue, given that the practitioner world first raised its concern about engagement from 2003/2004[6].

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[6] The reviewer did one of the first practitioner studies on the challenges of online brand engagement with AOL (UK) and the Henley Centre in 2004, Brand New World 1, http://www.aolbrandnewworld.com/

ENGAGEMENT: ALL SOURCES
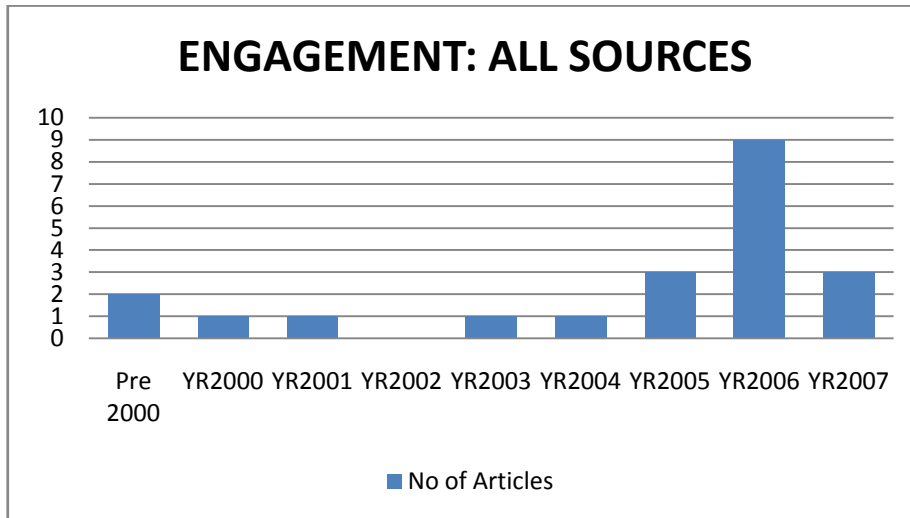
4.5 Empirical or Conceptual?

Of the sixty-five academic sources, 68% were empirical in nature. If, however, one looks at the Engagement cluster, of the twelve academic sources, eight were conceptual, reflecting the scarcity of empirical investigation in this area.

4.6 Geographic Location

The evidence is overwhelmingly US centric (Table 12). This is undoubtedly a reflection of the fact that the search was confined to English language journals but it is also a likely consequence of the US universities' specific investment in this area e.g. Vanderbilt eLab, and the MIT Center for Digital Business. Notwithstanding the English language bias, it is perhaps surprising that studies from Korea, Hong Kong, Taiwan, and China are not more prevalent, given that these countries, with the exception of the US, are unrivalled for both their technological innovation and for the scale of adoption and use of new technology.

However, the predominance of US sources at least provides a backdrop of cultural homogeneity for the data synthesis.

TABLE : GEOGRAPHICAL LOCATION OF STUDIES

	Engagement	Flow	Interactivity	Total
USA/Canada	15	21	16	52
Canada	4	3		
Australia	2	0	2	4
Taiwan		1		1
Tunisia		1		1
Korea		1	2	3
UK		1		1
Hong Kong			1	1
New Zealand			2	2
Spain			1	1
China			1	1
	21	28	25	74

5 THEMATIC ANALYSIS: OVERVIEW

This chapter looks at whether the evidence supports the sub-questions raised by the research propositions predicated on the research model in Section 2.7 for each of the conceptual clusters. Broadly speaking, in order to provide a prima facie case for the research model, the evidence is interrogated to resolve whether the constructs representing the three conceptual clusters are discrete properties, to determine their interaction and to establish consumers' attitudinal and behavioural response to them.

5.1 Interactivity

Three questions that are asked of the evidence relating to interactivity:

1. Is there a consensus as to the definition of interactivity?

2. Is there a relationship between interactivity (as consensually defined) and flow?

3. Or if there is no consensual definition of interactivity, is there a relationship between a particular definition or component of interactivity and flow?

5.1.1 Is there a consensus as to the definition of interactivity?

As Wu (2006) has observed, the concept of interactivity has been the subject of academic debate since the 1980s, when the arrival of videotext (Teletext in the UK) and two-way cable allowed consumers limited interaction and control over the information received. The development and commercialisation of the World Wide Web, and the overweening saliency of interactivity in this medium (Huang, 2003), intensified academic research and debate. That there remains a plethora of definitions in the literature, "as many definitions as the number of researchers studying interactivity" (Wu, 2006:88), is perhaps testament to the enduring vitality of academic argument, but perhaps, more cogently, testament to the rapid technology development and adoption in online environments affecting the breadth and impact of the structural drivers of interactivity. It is this division between *structuralists* and *experientialists* that illustrates the major fault line in the attempts to define the property of interactivity.

Despite this fault line, all definitions categorise interactivity as a multi-dimensional construct; they acknowledge the primacy of communication and register that the communication is two-way and is characterised by user control. Aligned with this approach, almost all cite Steuer's (1992:84) definition as a starting point: interactivity "is the extent to which users can *participate* in modifying the form and content of mediated environment in real time". Where they differ is through the lenses by which interactivity is, or could be, calibrated: these lenses afford three perspectives (1) the communicator's perspective, (2) the audience's or consumer's perspective (Wu, 2006) and (3) a unifying perspective (Coyle and Thorson, 2001, Yadav and Varadarajan, 2005).

Liu and Shrum (2002:55) define the structural aspect of interactivity as "the hardwired opportunity of interactivity provided during an interaction": in other words, the maintenance of interactivity by the communicator/communicating website. A structuralist or mechanistic approach to *Interactivity* thus calibrates the construct on the response to structural properties of the online medium or website. In McMillan and Hwang's 2002 paper, *structualist or mechanistic* definitions of the property will therefore focus on process and the associated constructs of 'interchange and responsiveness' and on features and the associated constructs of 'user-control and two-way communication'.

The experiential aspect of interactivity or "perceived interactivity" [PI] (Wu, 2006:91) is defined as a "psychological state experienced by a site visitor during his or her interaction with a website". The antecedents of this construct are (1) the structural properties of the website (interactivity, vividness, design) (2) the inherent characteristics and skills (internet expertise) of the viewer and (3) opportunistic factors such as visit motivation, access speed, access location. The champions of perceived interactivity cite three dimensions by which the construct can be measured. For McMillan et al (2002) the dimensions of PI are (1) two-way communication, (2) user-control and (3) time (essentially, responsiveness of the interactive process); for Wu (2006), the dimensions of PI are (1) perceived control, (2) perceived responsiveness and (3) perceived personalisation. As Wu (2006) points out, while the first two components of PI appear to align, the third component represents a substantive difference. Wu (2006) suggests that perceived personalisation is more appropriate on two counts; first because it differentiates new media from old media (e.g. direct–response TV, capable of two-way communication but not of user control) and secondly, because 'perceived personalisation' is a better indicator of the consumer experience i.e. whether the communication satisfies the expectations of the consumer.

However, both McMillan et al (2002) and Wu (2006) concur, unsurprisingly, that *Perceived Interactivity* should be the standard measure of the property, since it implicitly takes account of the cognitive processing and involvement in the activity and provides a better explanation of why, in certain cases, interactivity has a detrimental effect on consumer attitudes to website - consumers are resistant to levels of interactivity that make too high demands on cognitive processing (Liu et al, 2005)

Both structuralist and experientialist definitions have to incorporate two fundamental and uncontested aspects of interactivity: machine interactivity and person interactivity (Hoffman and Novak, 1996). Machine (or device centric, Yadav et al, 2005) interactivity is founded on Steuer's (1992) definition, (cited in Hoffman and Novak, 1996:53), the mechanism by which firms and consumers are able to interact via the configuration the form and content of 'hypermedia' content. In contrast, person (or message centric, Yadav et al, 2005) interactivity is defined as the interactivity or computer-mediated communication *between people* that occurs *through* the medium (Hoffman et al, 1996). While experientialists will argue, rightly, that Perceived Interactivity will automatically accommodate these two aspects, since all that matters, and all that is measured, is the experiential perception of interactive phenomenon, structuralists, however, must ensure that machine and person interactivity (user to message and user to user) are incorporated in constructs that represent response to structural properties that facilitate both aspects of interactivity. As technical innovation and development allows site visitors more complex information choices and more complex configurations of content and form, it thus becomes necessary to compartmentalise interactivity, in order to manage additional structural components. Accordingly, Fiore, Kim, and Lee (2005) use Steuer's 1992 definition of interactivity and define "image interactivity" as a subset or contributor of interactivity as so defined. Thus, "Image interactivity" is generated by image interactivity technology, which generates "website features that enable creation and manipulation of product and environment images to simulate or (surpass) actual experience with the product or environment" (Fiore et al, 2005:39).

Two recent articles attempted to move beyond the extant lack of clarity. Johnson, Bruner and Kumar (2006) empirical study took an eclectic view. The paper accepted the primacy of 'perceived interactivity' and found evidence that mixture of structural and experiential constructs "responsiveness, non-verbal information and speed of response" were significantly related to it

Yadav et al's (2005) conceptual review attempted to reconcile the different perspectives by evading the structuralist/experientialist dichotomy. They categorised the literature on interactivity into two groups: those studies that were ideologically *device-centric* (focused on computer-mediated communication tools) and those that were ideologically *message-centric,* focused on "communication patterns facilitated by these communication tools" (Yadav et al, 2005:589). The device-centric corpus of work incorporates both structuralist and experientialist paradigms: interactivity enables users "to *experience* and *manipulate* the perceived environment" (Yadav et al, 2005:592). The message-centric corpus is defined entirely in experiential terms, in terms of *interconnectedness* and *responsiveness*. Yadav et al (2005:593) see both approaches as complementary and unite them in their definition: "interactivity... is the degree to which computer-mediated communication is *perceived* by each of the communicating entities to be (a) bi-directional, (b) timely, (c) mutually controllable and (d) responsive". Yadav et al (2005) recognise the debt to MacMillan et al (2002) and Wu (2006) in that they state that perceived interactivity may be the product of both structural influences (e.g. website design) and consumer characteristics (e.g. internet expertise). What Yadav et al's (2005) review has produced is less iconoclastic, than an authoritative justification for marrying what is essentially Steuer's 1992 definition with the mediating lens of consumer perception.

Neither viewpoint appears to have taken root. There is a pervasive view that "although it is apparent that perceptions of interactivity are based on multiples dimensions, there is no general agreement as the nature or content of those dimensions" (Lee, 2005:165). While in 2007, judging by the dearth of recent papers, the appetitive for interactivity as a subject for academic marketing investigation seems to be less intense, it remains a focal issue for e-learning literature and a recent paper remarks on a general lack of agreement in how interactivity is conceptualized (Lustria, 2007). *The only consensus is that there is no consensus.*

The evidence then presents a paradox: there is no consensus as to the conceptualisation of interactivity, it appears to be redefined according to the context in which the construct is used, yet there is a consensus that 'interactivity' is an antecedent of flow.

5.1.2   *Is interactivity or a component of interactivity an antecedent of flow?*

Hoffman and Novak conceptualise flow on the web as a cognitive state experience during navigation that is determined by (1) high levels of skill and control, 2) high levels of challenge, (3) focused attention, and (4) is enhanced by interactivity and telepresence (2000:22). Telepresence is defined as "the

mediated perception of an environment" (Steuer, 1992:76); in effect, it is the simulation of the real world interaction, so as to generate the sensory perception that the participant is actually there in the 'mediated' environment (Fiore, Kim and Lee, 2005). The aspect of 'focused attention' incorporates the elements of enjoyment and time distortion (Wu and Chang, 2005).

Of the 25 papers focusing on interactivity used in this study, 5 empirical papers deal with the relationship between interactivity and flow and all support the concept that that there is positive relationship between them. Coyle and Thorson's (2001) study showed that the higher the level of interactivity, the higher the level of telepresence; similarly Fiore, Kim and Lee's 2005 study on image interactivity, a subset of the interactivity construct, was found to be a positive precursor of telepresence. Huang (2003) and Wu Chang's (2005) papers were more emphatic, asserting that interactivity is critical to flow - in fact, "the key to creating experiential flow" (Huang, 2003:433). Sicilia, Ruiz, and Munuera (2005) compared interactive web sites with non-interactive web sites and concluded that greater interactivity in a web site leads to greater information processing, greater favourability towards products and greater flow intensity.

The difficulty in synthesising the evidence at this level is given that flow and interactivity are multi-dimensional constructs, and that interactivity remains an unstable construct, the question remains whether the studies are measuring like with like? A narrative synthesis of the studies (Table 13) revealed remarkable homogeneity. All the papers, bar one, adopted, in their words, a strictly *"mechanical perspective"* towards interactivity; three used Steuer's 1992 definition as a starting point; one used the Hoffman and Novak (1996) terminology and all used the Hoffman and Novak definition of flow as the benchmark for informing the resultant empirical work, and only one embellished that concept using Shih's (1998) and Sheridan's (1992) work. Therefore, it is possible to assert that the extant evidence supports the concept that *machine interactivity*, "the extent to which users can participate in modifying the form and content of a mediated environment in real time" (Steuer, 1992) is a key antecedent of flow.

TABLE : STUDIES EXPLORING THE RELATIONSHIP BETWEEN INTERACTIVITY AND FLOW

Authors	Date	Definition of Interactivity	Definition of Flow	Findings
Coyle and Thorson	2001	Uses the "mechanical perspective" - Steuer's three dimensions:(1) speed at which content can be manipulated, (2) range of ways it can be changed and (3) the efficiency of mapping - how similar the controls (in terms of facility of manipulation) in the mediated environment are to those in a real environment	Uses the Novak, Hoffman and Yung definition of flow (2000). Uses Steuer's 1992 definition of telepresence; uses Kim and Biocca (1997) scale to measure telepresence	The higher the level of interactivity, the higher the level of telepresence
Fiore, Kim, Lee	2005	Uses Steuer's definition, posits image interactivity as a subset of machine interactivity	Use Shih's (1998) definition of telepresence: the sense of being in the mediated environment, which depends on "how closely the computer-mediated experience simulates the consumer's real world interaction with a product". Adds to the sensory simulation, the ability to control and modify the stimulus (Sheridan, 1992)	Image interactive technology generates telepresence, as IIT increases so does telepresence
Huang	2003	Definition of Interactivity as a synthesis of approaches, comprised of experiential attributes: active, responsive, interactive, participatory, dynamic, demonstratable	Uses principally the Hoffman and Novak definition: flow measured as a composite of three variables: control, attention, curiosity, interest	"Interactivity is the key to creating experiential flow"
Sicilia, Ruiz, Munuera	2005	Uses a "mechanical perspective" - machine interactivity, which allows consumers to control the information flow	Adapts Novak, Hoffman and Yung (2000) scale	Measures intensity rather than existence; assumes extant literature verifies the interactivity facilitates flows. Findings: the more interactive the web site, the greater the state of flow intensity
Wu and Chang	2005	Uses Hoffman and Novak, 1996 definitions of machine and person interactivity	Primarily uses Hoffman and Novak 1996 definition; flow is represented in the study by the variables of enjoyment and time distortion	Interactivity is a critical factor in whether a site visitor enters a flow state. The hypothesis that interactivity is positively related to flow is fully supported in the case of machine interactivity and partially supported in the case of person interactivity. The effect of person interactivity on enjoyment was not supported

5.1.3   Summary:

Original Hypothesis: Stage 1 - Interactivity leads to Flow

In response to Question 1, although there is some evidence that the chronology of the literature on interactivity indicates an increasing deference to the 'experientialist' paradigm, in that more recent articles tend to emphasise that all interactivity per se is *perceived interactivity*, there remains an acknowledged lack of agreement on the parameters of the construct. Internal validity for the purpose of empirical work has not lead to any external standardisation. Thus, the affirmative response to Question 2 is also not supported.

However, there is agreement that 'machine interactivity' is a precursor of flow and as a consistent definition of 'machine interactivity' is used in those studies supporting this hypothesis, the affirmative response to Question 3 is supported.

Finding: *Perceived Interactivity*, a consequence of 'machine interactivity', leads to flow.

For there to be a prima facie case for the research model (Chapter 2), there are a number of questions that need to be asked of the evidence relating to flow:

1.   Is there a consensus as to the definition of flow?

2.   Is there a relationship between flow (as consensually defined) and consumer attitudes and behaviour to the focal web site and brand?

3.   If there is no discernable relationship between flow and consumer attitudes and behaviour in the literature, is there a relationship between a component or components of flow and consumer attitudes and behaviour to the focal web site and brand?

4.   What is the nature of this relationship and how does this relate to engagement?

5.2.1   Definitions of flow - is there a consensus?

The concept of flow is central to the "experientialist" school of marketing. Commercial mastery of the online environment, *this vibrant, alternative 'reality'*, is predicated on the creation of compelling experiences, which, in turn, depends on facilitating a state of flow (Hoffman and Novak, 1996, Novak, Hoffman and Yung, 2000).

Hoffman and Novak (1996) set the benchmark in terms of adapting Csikszentmihalyi's theory of flow, i.e. *"the state in people are so involved in an activity that nothing seems to matter"* (Csikszentmihalyi, 1975:4, cited by Siekpe, 2005:32), to the computer mediated environment. They conceptualised flow on the web as a "cognitive state experienced during navigation that is determined by (1) high levels of skill and control, (2) high levels of challenge, (3) focused attention and (4) is enhanced by interactivity and telepresence" (Novak et al, 2000:22). This state is characterised by "intrinsic enjoyment" and is "self-reinforcing" (Novak et al, 2000).

 Despite the acknowledged debt to Hoffman and Novak's work on this issue, the study of flow remains problematic: it appears ontologically secure but epistemologically and methodologically unstable. There is great deal of evidence that flow exists online and is central to the online experience , 47% of respondents in Novak et al (2000) study and 50% of the respondents in Rettie's (2001) study confirmed that they had experienced flow, yet academic studies have yet to consistently show that the experience is meaningful in any commercial sense. The dilemma arises less from lack of consensus about the

definition, since most studies start with Csikszentmihalyi's theory of flow and use Hoffman and Novak's (1996) definition to prop up the empirical architecture, than its operationalisation as a construct. The concept of flow is a tribute to scholastic artifice: the state can be described, i.e. Novak et al describe it in their questionnaire as a *state of enjoyable immersion to the exclusion of all other concerns* (the debt to Csikszentmihalyi is obvious) but it can only be tested and evaluated in terms of other assumed contributory latent constructs. As Rettie's (2001) study eloquently suggests, it is like trying to "define happiness in terms of smiling".

Novak et al (2000), in their model of flow, used 12 constructs to characterise the dimensions of flow and its outcomes but noted that of the sixteen studies reviewed in their study, on average only four of the constructs, itemised in Table 14 (below) were used.

TABLE : NOVAK ET AL (2000) CONSTRUCTS USED IN FLOW MODELS

Arousal	Challenge	Control
Exploratory Behaviour	Focused Attention	Interactivity
Involvement	Playfulness	Positive Affect
Skill	Telepresence	Time Distortion

This review encountered similar parsimony and heterogeneity in the use of latent constructs associated with flow (Table 15). Furthermore, there is debate as to whether the dimensions cited in Table 15 are antecedents or consequences of flow. Skiepe's 2005 empirical paper argues that flow is a reflective construct and that challenge, concentration, curiosity, and control are outcomes of the said psychological state

In conclusion, there appears to be a consensus as to what flow is "experientially" from a consumer's perspective: Rettie (2001), Pace (2004) and Zwick and Dohlakia (2006/7) use grounded theory to explore its existence and their findings support Csikszentmihalyi (1975) theory of flow and Hoffman and Novak's (1996) and Novak et al's (2000) work on flow in the computer-mediated environment. However, in the general corpus of work about flow, there is no general agreement on how it is operationalised in empirical studies and that, in turn, has lead to considerable inconsistency in the evidence as to whether flow is any more than a pleasurable diversion.

TABLE : DIMENSIONS OF FLOW USED IN EMPIRICAL STUDIES

Dimensions of Flow	Study
Enjoyment	Novak, Hoffman and Yung (2000) Skadberg & Kimmel (2004) Jiang and Benabsat (2004), Wu and Chang (2005)
Concentration	(Koufaris (2002) Novak, Hoffman and Yung (2000) Jiang and Benbasat (2004) Huang (2006)
Control	Novak, Hoffman & Yung (2000), Koufaris (2002) Skiepe (2005), Jiang and Benbasat (2004) Huang (2006)
Challenge & Skill	Novak, Hoffman and Yung (2000) Mathwick and Rigdon (2004) Skiepe (2005), Richard and Chandra (2005)
Curiosity	Skiepe (2005) Huang (2006)
Time distortion	Novak, Hoffman and Yung (2000) Skadberg & Kimmel (2004), Wu and Chang (2005)
Interactivity	Richard and Chandra (2005)
Telepresence	Novak, Hoffman and Yung (2000),
Involvement	Novak, Hoffman and Yung (2000), Huang (2006)

5.2.2   Is there a causal relationship between flow and consumer attitudes and behaviour?

Hoffman and Novak hypothesised in their 1996 model that flow would lead to increased learning, perceived control, exploratory behaviour, and a positive subjective experience. Their 2000 study amended the 1996 model: skill, control, challenge, arousal, and telepresence were supported as antecedents to flow; however, in the 2000 study 'focused attention' was only indirectly linked to flow (it was mediated by telepresence) and while there was a direct link to telepresence, no significant relationship was observed between flow and exploratory behaviour. As Finneran and Zhang (2005:90) wryly observed, *"their [Hoffman and Novak] work does not show the flow experience itself yielding any consequences"*. That view is upheld by Zeithamel, Parasuramen, and Malhotra (2002) in their study on e-serv quality. They suggest that flow is irrelevant to a superior shopping experience; flow is dismissed as *"more pertinent to interface design than to service quality measurement"*: the hedonic aspect of flow of lesser commercial consequence than the efficiency and performance of online transactional and service components of retailer web sites. Latter empirical studies by Novak, Hoffman and Duhachek (2003) and

Mathwick and Rigdon (2004) refuted the charge the flow was peripheral to the commercial experience because its primary thrust was hedonic and were able to show that, on the contrary, though both types of experience generated flow, flow was more likely to occur when users were involved in task-orientated experiences than in recreational experiences. In other words, flow and the shopping experience were not mutually antithetical.

If the evidence suggests that consumers may well experience flow when shopping, is there evidence, despite Novak et al's (2000) inability to find a link between flow and exploratory behaviour, that there is a causal relationship between flow and consumer attitudes to the web site and/or brand? Korzaan (2003) found support for such a link and further established a relationship between exploratory behaviour online and attitude to the "computer-mediated information system" and to purchase intention. Richards and Chandra (20005) using *challenge, skills and interactivity* as dimensions of flow, echoed Korzaan's (2003) finding and established that skills and challenge were linked to exploratory behaviour. Similarly, Wu and Chang (2005) in their study of an online travel community, found that flow, characterised by the constructs *enjoyment and time distortion*, had a positive effect on purchase intention. Other studies have unearthed a more indirect relationship between flow and consumer attitudes and behaviour. Skadberg and Kimmel (2004) also using *time distortion and enjoyment* as indicators of flow, found that flow had a positive impact on consumer learning and that, in turn, had an effect on consumer attitudes and behaviour (revisits, desire for more information). Mathwick and Rigdon (2004) argued that flow (using the constructs of *skill and challenge*) contributed to the perception of play, which is characterised by enjoyment and escapism (defined as psychological immersion), which then led to more positive attitudes to the web site and to the brand. Huang's (2006) study argues that a key aspect of flow, *curiosity* "represents the infusion of the flow construct into existing involvement constructs" (Huang, 2006: 405).

However, the lack of standardisation re the flow construct in all these empirical studies means that any overarching theory about the contribution of flow to online competitive advantage must be treated with caution. Smith and Sivakumar's theoretical model seems unwarrantedly optimistic when it assumes, as a given, that the flow facilitates internet shopping and argues that what requires study is only the manner which its duration and intensity are moderated by specific consumer characteristics, the product, and the motivation behind the purchase (planned vs. unplanned). The extant state of research seems to bear out Koufaris's (2002) observation, upon finding that only shopping enjoyment correlated with intention to return to the website, that it may be the case *"a multi-dimensional flow construct does not explain*

[consumer] behaviour, while a simple construct like shopping enjoyment does. Therefore, we urge the cautious use of flow in online consumer behaviour research".

Skiepe (2005:41) recommends persuasively that *"to achieve nomological validity for the flow construct... its instrument validation process should be tested against a variety of persons, settings, and in the case of business, products and services ... then the case that the construct is valid will be more compelling".*

If the evidence cannot authoritatively show there is a relationship between flow and consumer attitudes and behaviour to web site and brand, is there a causal relationship between a component of flow and the consumer attitudes to web site and brand?

5.2.3 The Significance of Telepresence

One could conjecture that there are two reasons why a number of studies have focused on telepresence: (1) while flow proved resistant, Hoffman and Novak (1996) were able to demonstrate empirically a relationship between telepresence and exploratory behaviour and (2) the consequence of flow being so meticulously defined and so emphatically linked to website navigation (Novak, Hoffman, and Yung, 2000) is that as the technology developed, and as the sensory opportunities in terms of visual and auditory stimuli embedded in websites proliferated, another property had to be used to describe the consumers' resultant sensory experiences.

Li, Daugherty and Biocca (2002), Fiore, Kim and Lee (2005) and Suh and Chang (2006) demonstrated that telepresence served as an intermediate variable between such website properties as virtual reality, image interactivity technology, and 3D product advertising, and consumer attitudes and behaviours. All the above studies showed empirically that telepresence led to consumers perceiving that they were more informed about a product and therefore able to feel more positively about it (Suh et al, 2006), had a significant and positive impact on the strength of beliefs about a product and the intensity of attitudes towards a product (Klein, 2003), positively affected instrumental and experiential value (Fiore et al, 2005), which, in turn, affected attitude to product, purchase intent and site patronage. While all the studies used Steuer's (1992) definition of telepresence as a starting point, telepresence as an instrument in the empirical studies tended to be adulterated with components associated with flow. Thus, Fiore Kim and Lee (2005) add the component of control, which incorporates the ability to control the relationship to the stimulus and the skill to modify it. In Suh and Chang's (2006) study, telepresence is operationalised by the dimensions of spatial

presence ("being there), engagement (involvement and interest), and verisimilitude (naturalness; belief in the environment). Only Klein (2003) adopted a purist attitude to telepresence although the measurement scale used in the study, which emphasises psychological immersion and time distortion, seems perilously close to Hoffman and Novak's *operational* definition of flow[7].

While, given the somewhat 'free' interpretation of telepresence in the above studies, there is justifiable concern that the relationship between flow and telepresence needs further investigation (Pace, 2003), not to mention urgent semantic clarification, there is sufficient evidence to suggest that telepresence amplified by some components of flow (broadly speaking this equates to the construct of psychological immersion plus the constructs of control, skill and involvement) does act as intermediate variable between website properties and consumer attitudes and behaviours.

5.2.4 Telepresence and Consumer Attitudes and Behaviours: the nature of the relationship and how is this related to Engagement?

Of the four studies that measure telepresence effect on consumer attitudes and behaviour, only Fiore et al (2005) is able to find a *direct* relationship between attitude towards an online retailer, willingness to purchase and willingness to patronise. The most recent study (Suh et al, 2006) *rejects categorically any direct association between telepresence and purchase intentions*. The consensus of an admittedly very small sample is that telepresence is rather a *facilitator* of positive consumer attitudes to product. For Li et al (2002), telepresence is the generator of 'virtual affordances', "perceptual cues that guide consumers' interacting with products" (Li et al, 2002:50) which mediate between perceived and real affordances. Klein (2003:49) found that higher levels of telepresence led to "stronger beliefs in the advertised product's claims and more intense attitudes towards the advertised product". Fiore et al (2005), while establishing a direct connection with consumer attitudes, also found that telepresence made a significant contribution to instrumental and experiential value, which in turn affected attitudes and behavioural intention. Suh et al (2006) summarise that high levels of telepresence enhance consumers' perceived product knowledge and reduce risk, and create a more positive feeling towards the product. The resultant crystallised consumer attitudes then have a direct effect on purchase intention.

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[7] "The word "flow" is used to describe a state of mind sometimes experienced by people who are deeply involved in some activity...Activities that lead to flow completely captivate a person for some period of time. When one is in flow, time may seem to stand still and nothing else seems to matter." (Novak, Hoffman and Yung, 2000:28)

While the lack of standardisation in the measure used to represent telepresence must introduce a note of caution in any conclusion, the evidence, buttressed by common sense[8], tends to support the view that while a compelling, immersive experience, associated with telepresence, is a requisite pre-condition for establishing a positive attitude to a product or vendor, it is not of itself enough to generate a relationship with a brand sufficient to induce intention to purchase, actual purchase, or to sustain brand loyalty. It is therefore reasonable to conjecture that telepresence might contribute to another 'experiential' variable that in turn might directly influence optimal consumer attitudes and behaviours. Is there enough evidence to sustain the hypothesis that this variable is engagement?

That there is, in addition to interactivity and flow, a third experiential state initially is given support in the some of the academic literature already discussed. Shih (1998), Mathwick et al (2004) Fiore at al (2005) interpose an intermediate variable between visitor immersion in the heuristics of the website, whether that psychological state is construed as flow or telepresence, and consumer attitudes and behaviour. For Shih (1998), that state is defined as bricolage. Bricolage is "the tinkering and manipulation of objects around one's immediate environment to develop and assimilate ideas" - online consumers cope with the plethora of information online and optimise information search and retrieval by adopting bricolage (Shih, 1998). Bricolage is distinct from telepresence but not exclusive. It is not necessarily sequential but rather it may occur simultaneously with telepresence. For Mathwick et al (2004), the bridge between flow and consumer attitudes and behaviour is "perceived play". Perceived play is a construct with two dimensions, escapism, and enjoyment. Escapism is defined as a state of psychological immersion, different from telepresence, in that it represents "absorption in the online information search experience rather than in the perceived reality of virtual environments" (Mathwick et al, 2004:325). Escapism thus represents an active state of cognitive processing rather than just a sense of 'being there'. Fiore et al (2005) interpose instrumental and experiential value between telepresence and consumer attitudes. Fiore et al (2005) define instrumental value as that which by the delivery of information assists goal-directed behaviour, such as purchase decisions, and is acknowledged as such by the consumer (a

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[8] The author tends to support Payne and Frow's (2004) utilisation of Eisenhardt's (1989) view that conceptual frameworks and theory are typically based on combining previous literature, common sense, and experience

preference experience) and experiential value as that which, during the consumption experience, offers "intrinsically satisfying pleasure to the senses, emotional satisfaction, mental play or amusement and fantasies" (Fiore et al, 2005:42).

All of these 'intermediate' constructs exhibit the characteristics of "engagement" as used in e-learning academic literature, marketing practitioner studies, and in the three papers, published in December 2006 and June 2007, that appear to represent the first substantive academic marketing foray into the engagement debate. Table 16 elucidates the relationship.

There is at least a prima facie case, given the congruence of characteristics, that engagement can stand as an intermediate variable[9] between flow/telepresence and consumer attitudes and behaviour. Moreover, as Mathwick et al (2004) and Fiore et al (2005) showed empirically, that intermediate variable has a positive effect on consumers' relationships with retailers and brands.

TABLE : DIMENSIONS OF ENGAGEMENT IN ACADEMIC STUDIES

Study	Context	Construct	Dimensions
Shih (1998)	Consumer behaviour online	Bricolage	Cognitive processing facilitating learning
Mathwick and Rigdon (2004)	Flow	Perceived Play	Pleasure and active cognitive processing
Fiore, Kim and Lee (2005)	Interactivity	Instrumental and Experiential value	Utility/Relevance and pleasure/satisfaction
Jones (1998)	E-learning	Engagement	Involvement and Learning
Kearsley and Shneiderman (1999)	E-learning	Engagement	Active cognitive processing: problem solving, reasoning, decision-making , evaluation
Herrington, Oliver and Reeves (2003)	E-learning	Engagement	Holistic involvement and cognitive processing
Guthrie et al (2004)	Education psychology	Engagement	Concentration, sustained cognitive effort, complex cognitive strategies, active learning, goal-directed, focused interactions, curiosity
Marci (2006)	Neuromarketing	Engagement	Combination of audience synchrony (attention) plus intensity (emotional impact)
Wang (2006)	Advertising	Engagement	Emotional connection to brand plus contextual relevance
Rappaport (2007)	Advertising	Engagement	Relevance and Emotional connection
O'Brien and Toms (2006)	Human/Computer Interaction	Engagement	Motivation, positive affect, control/skill, choice, challenge, cognitive strategies
Douglas and Hargadon (2000) & (2001)	Narrative and Hypertext	Engagement	Cognitive and affective dissonance leading to congruence with narrative schema

Is there any other evidence, specifically focused on engagement, to support the sequential order? The e-learning literature specifically differentiates between *flow as immersion*, or *interactivity as task fulfilment*, and *engagement*. Jones (1998:211) states, "When an individual is in flow, they lose themselves. When

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[9] In effect, engagement would serve as a proxy for briocolage, perceived play and instrumental/experiential value

an individual is engaged in a CBLE (Computer based learning environment) they are *engaged* in the process of learning". The former state is passive; the latter state active, motivated, representing the employment of cognitive strategies to expedite comprehension. Guthrie et al (2004:404) stress that engagement represents a psychological state that goes beyond mere task fulfilment. In their view, engaged reading "refers not to any form of effort (such as completing a routine task quickly) but to effort derived from using complex strategies, or to deep knowledge for learning from text". This state is characterised by involvement, energised, active, effort, and the full use cognitive capability. Kearsley and Schneiderman (1999) concur: engagement is an activity that involves "active cognitive processes ... problem-solving, reasoning, decision-making and evaluation". They assert that engagement differs from simple interactivity because it must include the components of collaboration, and creative, purposeful activity.

However, while engagement is acknowledged as a distinct experiential state and its characteristics itemised, only one study in the e-learning corpus of work specifically explores its sequential relationship to flow or immersion. Herrington, Oliver, and Reeves (2003) view online e-learning experience as a two-stage process in which the suspension of disbelief (flow) is a necessary precursor of engagement. They use the analogy of the cinema to support their assumption: "once the viewer has accepted the fundamental basis for the simulated world in which he or she is immersed, *engagement* with the story or the message of the film is entirely feasible". For film, read brand.

Douglas and Hargadon (2000 and 2001) provide more conceptual support for that analogy and sequence: in their view, the pleasure of immersion in a narrative text or hypertext environment "all takes place within the text's frame, which usually suggests a single schema and a few definite scripts for highly directed interaction." Engagement is a patina of cognitive activity (what Douglas et al (2001:160) term "engaged, affective, experience") which is, essentially, a dynamic, pleasurable, state arising from cognitive access to a wide range of scripts and schemas[10], perhaps contradictory, perhaps defying convention that disrupts the immersive experience through an attempt to find congruence. In effect, readers and consumers "assume an extra-textual perspective on the text itself, as well as on the schemas that have shaped it and the scripts operating within it" (Douglas et al, 2001:156). Douglas et al's (2001)

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[10] Schemas are defined as "building blocks of information processing; a cognitive framework that determines what we know about the world, the objects it contains, the tasks we perform within it, even what we see" (Douglas et al, 2001:154).

work is important because it gives conceptual credence to the notion that engagement is a form of pleasurable, cognitive, affective, dissonance; a mechanism by which we make sense of the whole - whether narrative text, hypertext, website, or brand personified by website. To borrow a term used in another context, it is a form of 'holistic gestalt'. This conceptual piece views immersion and engagement as a "continuum" with flow, the pleasurable and absorbing exercise of skill and control in response to challenge, "hovering between...drawing on the characteristics of both simultaneously" (Douglas et al, 2001:160).

5.2.5 Summary

> **Original Hypothesis: Stage 2 - Flow leading to Engagement**
>
> While there is a benchmark definition of flow (Novak et al, 2000), there is no operational consensus, therefore Q1 cannot be answered in the affirmative. Moreover, even when flow is operationalised eclectically, the evidence for a direct causal relationship between flow and consumer attitudes and behaviours is not authoritative (Q2).
>
> There is more substantive evidence that telepresence, augmented by some dimensions of flow, is an intermediate variable between website properties and consumer attitudes and behaviours but that it does not form a direct link. (Q3). Rather, there is a prima facie for the case that the relationship between immersion, *whether operationalised as flow or telepresence*, and consumer attitudes and behaviour is mediated by engagement (Q4).
> If engagement serves as a proxy for *perceived play* or *instrumental and experiential value*, as the consonant characteristics suggest, then there is empirical evidence of both its sequential positioning and its effect on consumer attitudes. The conceptual work in the e-learning literature also provides theoretical affirmation for the adoption of that framework.
>
> **Finding: Immersion, whether operationalised as flow or telepresence, leads to engagement.**

5.3   Engagement

5.3.1   The Practitioner Perspective

For the final stage of the model to be validated, the evidence needs to show that there is a prima facie relationship between engagement and optimal consumer attitudes and behaviours (Q5).

The e-learning literature and Douglas and Hargadon's papers (2000, 2001) support the theoretical view that engagement is a cognitive and pleasurable affective mechanism that builds and invests meaning in a holistic experience.

For the practitioner, desire for empirical proof of such an assertion, where the holistic experience is represented by consumer interaction with the heuristics of the website or the brand as personified by the website, appears pedantic. The definition of engagement provided by the ARF (2006) is predicated on the existence of such a relationship: *Engagement is turning on a prospect to a brand idea enhanced by the surrounding context".*

While the definition worthily underpins the concept that engagement is an experiential construct, that *"engagement happens inside the consumer not the medium" (New York Times, March 21, 2006),* the practitioner community remains unconvinced, rightly, about its methodological validity. Using the ARF's definition, engagement could simply serve as proxy for a number of constructs, such as cognitive involvement, affective involvement, liking, satisfaction - what does turning on to brand actually mean?[11] Secondly, as the IAB (UK) study on engagement in the car sector pointed out, the ARF definition yokes a consumer's relationship with a brand with a consumer's relationship with the disseminating medium or channel. If engagement is to be a benchmark metric, it must be an independent measure. Thirdly, while it avoids the lack of clarity associated with flow, an artificial construct that bears no relationship to commonly articulated consumer experiences (engagement is an experience that consumers can 'know' and identify with), without a theoretical balustrade of experiential dimensions supporting the construct, it can only be operationalised on a single self-reported note[12]. In effect, it is not possible to triangulate the self-reported measure with the accompanying measurement of other experiential dimensions of the construct.

In the UK, practitioner studies have either avoided a definition of engagement or assumed the relationship between engagement and consumer attitudes to brands. They have operationalised engagement in terms of consumer preference, and merely tested its intensity and contextual resonance within

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[11] Most practitioners were disappointed, expecting a definition that at least encompassed emotional and behavioural perspectives. One marketing blog pronounced that it was "too narrow a definition (I'm being way too kind here)" (http://marketingroi.wordpress.com/2007/01/02/engagement-myopia/). Another said it was "to some of us, it sounded more like a description of how it works than what it is". (http://www.bruzzone-research.com/mar_2006.htm). The author merely suggests that as a measure it is completely unworkable.

[12] Wang (2006) used a Likert scale of 'perceived engagement', where 1=not engaged at all and 7=extremely engaged.

various media environments. The IAB Brand Engagement Study (2006) is a case in point. The study conducted in association with Carat reviewed brand engagement in the car sector. The measure of Brand Engagement was constructed (factorised) from number of attitudinal statements, of which three were identified as having the most contribution to brand engagement: "is a fun car", "is a car for someone like me", "I like the shape". Various media channels were also tested to see which delivered most brand engagement.

The other major study, the E-Consultancy Customer Engagement Survey (2007), has been conducted from a marketer's perspective, with engagement defined as "repeated interactions that strengthen the emotional, psychological, or physical investment a customer has in a brand". While this definition addresses only the structuralist, external, view, it does captures the holistic embrace of engagement, and it is the author's contention that the definition offered in Chapter 2 is the experiential correlate of E-Consultancy's definition.

While the marketing community acknowledges that, conceptually, engagement is a better mechanism than extant metrics for measuring consumers' relationships with brands, neither the voluminous trade literature on both sides of the Atlantic nor the practitioner empirical studies have solved the issue of operationalisation.

If engagement is to be a robust metric, it must not only encapsulate where the consumer experientially 'is', it must be able to predict the efficacy of marketing efforts. As the Media Post (May 2006) summed up, "conceptually, engagement is an improvement in the way we can indicate media's effectiveness. But unless it is categorical in its application and quantifiable in its indication, we are looking at a long engagement before the wedding". The article then added "just how does one quantify a qualitative experience … the kind of data necessary to support an engagement metric could only be drawn from extensive research and observation".

The paradox is that because the practitioner assumes the relationship between engagement as an experiential state and optimal attitudes and behaviours, the problem of engagement as a viable metric, beyond the self-reported measure, becomes insoluble. Conceptual justification without conceptual rationale leads to an operational dead-end.

Is the Media Post's call for extensive research and observation addressed by the academic world?

5.3.2 The Academic Perspective

If engagement serves as a proxy for existing constructs (Section 5.2.4) then the extant academic research has demonstrated that there is a relationship between engagement and optimal consumer attitudes and behavioural intentions.

Wang's (2006) is the only work in the engagement canon, (to the author's knowledge), to empirically validate the relationship between engagement as a self-reported construct and consumer attitudes. Exploring engagement in an advertising context, the work shows that there is a significant relationship between engagement and message involvement and message believability. The relationship between engagement and message involvement is identified as being of critical importance, since message involvement also mediates the relationship between engagement and message believability. While Wang's (2006) empirical work stands and makes a valuable contribution, the work is vitiated by conceptual weakness. First, the study unquestionably accepts the ARF (2006) definition of engagement with its attendant limitations. Secondly, Wang (2006) defines engagement as a measure of contextual relevance but in the conclusion of the paper, identifies contextual relevance as a driver of engagement. This apparent contradiction is not explained[13].

Despite the confusion of the Wang's (2006) study, that context is a driver of engagement is validated by another study (Marci, 2006). Of more interest is Marci's (2006:383) definition of engagement, which provides a biological correlate[14] to the ARF (2006) definition. Engagement is defined as a "combination of audience synchrony (attention) plus intensity (emotional impact), where synchrony is defined as the degree to which an audiences physiologic state uniformly changes when exposed to a media stimulus"

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[13] The author acknowledges that both statements could conceptually be 'true'. However, that stance is also not explained

[14] Skin conductivity, heart rate, respiratory state and motion were measured in the study which exposed participants to television advertisements in successful and less interesting programming environments

Original Hypothesis: Stage 3 - Engagement leading to optimal consumer attitudinal and behavioural outputs

It is clear, whether as a proxy construct or from empirical work, in an admittedly limited canon of work devoted to engagement, that there is a prima facie case for a significant relationship between engagement (a cognitive and affective experiential state) and optimal consumer attitudes and behaviour (Q5).

Findings: Some support for Stage 3

It is equally apparent that more empirical work is necessary to support this case but that of equal urgency is the need to formulate a definition of engagement that is conceptually acceptable to both academic and practitioner worlds and workable as an operational measure. The data synthesis part of the review addresses this and other issues that have surfaced as result of this review.

6 DATA SYNTHESIS: OVERVIEW

According to Pawson, Greenhalgh, Harvey, and Walsh (2004), the purpose of data synthesis in a realist review is to refine theory. Thus, in this case, the purpose of the review has been to examine extant evidence to ascertain whether there is prima facie case for a conceptual framework. All of the four main propositions had sub-questions that required satisfaction. The summaries in each section have, in effect, been a form of data synthesis (a testing of the integrity of the pertinent theories) of the evidence concerning the sub-questions.

This chapter incorporates two approaches. Methodologically, it offers a perspective on conducting the data synthesis. Thematically, it takes a macro-view and looks at the original conceptual framework and the main propositions associated with that framework. Accordingly, it asks whether the conceptual framework is supported in its entirety and, reviewing the evidence as whole, points out any actual and potential frailties in the conclusions drawn, as well as examining the case for further refinement of the initial model.

6.1 Conducting the data synthesis: a methodological commentary

While the thrust of this review has been inductive and exploratory, that strategy has been confined to the components of a pre-existing framework. In line with the precepts of a realist review, the process has been to challenge iteratively the 'ontology' and alignment of those components. However, one of the limitations of this review that it builds on existing theory rather than creating a new paradigm. It does not, for example, interrogate the existence of such concepts of interactivity and flow.

Furthermore, while the operating principle of a realist synthesis should be to confirm or refute theory, in reality, even adopting the pragmatism of "what works for whom, how, and under what circumstances"[15] proves, in this instance, frustratingly complex. This is simply because there is rarely a consensus as to definitions of experiential properties and certainly a wide

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[15] Albeit, constrained by the evaluation of relevance and rigour.

variation in empirical operationalisation. So problematic is this in the field of study concerning flow, that there are notable calls to resolve this ambiguity (Finneran and Zhang, 2005, Skiepe, 2005).

Some academic authorities circumvent this dilemma by simply adopting a constructionist approach. In particular, Pace (2004) and Rettie's (2001) work on flow, eschews models and merely delivers a rich palette of experience. They support the existence of a property and its 'multi-dimensionality' but spurn positivist causality. Finneran and Zhang (2005:97), somewhat controversially, go so far as to say of Pace's (2004 work, that while his method might be instructive, the work does "not consider theoretical work to date" and [does] "not contribute to theory".

How then to ascertain what works and how? If there is no common grammar, then all an author can do is to interpret the discourse, apply a layer of meta-meaning on the evidence, and on the clash of paradigms in the evidence. Pawson et al's (2005) conclusion is relevant. Despite the devotees of 'realist synthesis' earlier championing of 'what works' as a systemic objective, their conclusion is that any final judgement should ultimately temper "what works" with caution and complexity; that findings, even those produced by a process as transparent as a systematic review, are not fundamental truths but an accretion of knowledge that is open to refutation. It is in this spirit that the experiential model of engagement is offered.

6.2   Is the conceptual framework and definition of engagement supported?

The research model and the resultant definition of engagement depend on a number of propositions itemised in Section 2.7.

Online consumer brand engagement was defined as *a specific type of experience. It is the mechanism by which consumers form (opt into) a cognitive, affective, and behavioural relationship with the brand, as personified by the website or other computer mediated entities that interact with consumers. It is the final stage in a tiered spectrum of involvement that ranges from interactivity (the capturing of attention), to flow (cognitive immersion in the heuristics of the medium and the website) to a cognitive, affective and behavioural interaction with the conceptual, experiential manifestation of the brand, generated by the dynamics of the website.*

Therefore, P1 and P2 need to be supported.

P1: That interactivity, flow, and engagement are discrete properties

P2: That these properties are characterised as a hierarchy of effects, an experiential sequence, with interactivity proving an antecedent to flow and flow a precursor of engagement

While definitions of interactivity and flow are rooted in scholastic authority, the former allied to Steuer's (1992) definition, the latter acknowledging the debt to Csikszentmihalyi (1975) and Hoffman and Novak's (2000) refinement, both concepts exhibit considerable fluidity in their operationalisation. Thus, the evidence tends to support P1, less by virtue of agreed definitions than by evidential agreement on sequential alignment: *interactivity leads to flow*. In effect, the properties are discrete not by their epistemological status but by their positional relationship. The summary of findings in Section 6.1.3 suggests that interactivity in the proposition should be characterised as 'perceived interactivity'

 The evidence generally concurs *perceived interactivity*, a consequence of machine interactivity, is an antecedent of an 'immersive' psychological state. Whether that immersive state is operationalised as flow or telepresence depends on the scholar. The evidence is slightly inclined towards *telepresence*, as (a) in conjunction with other variables, admittedly appropriated from the 'multidimensional' flow, it is often used as a measure of immersion (Biocca and Delaney, 1995, cited by Sacau et al, 2003) and (b) there is adequate empirical evidence of an indirect relationship between telepresence and consumer attitudinal outputs (Li et al, 2002, Klein, 2003, Fiore et al, 2005, Suh et al, 2006).

In view of earlier unsuccessful efforts to establish a *direct* relationship between an immersive attitude and consumer's attitudes and behavioural intention and intention towards website and brand, more recent empirical evidence suggests that there is an intermediate experiential variable between immersion and consumer attitudinal and behavioural outputs. A synthesis of the empirical evidence on flow and interactivity and the theoretical work on engagement indicates given the commonality of dimensions on that intermediate property, that the third variable could be hypothesised as engagement. Therefore, an amended P2 can be supported, with telepresence replacing flow and that property proving a precursor of engagement.

It should also be noted that there is an inherent frailty in any hierarchical, structured approach to consumer experiential states. As Zwick and Dholakia

(2006/7:35) point out in their empirical study of flow, "rather than a binary flow/non-flow distinction, marketers need to adopt a more sophisticated model of online consumer experience that accommodates the possibility of various degrees of flow, and of micro flows and deep flows". Similarly, the complex neurological processes, and their physiological expressions (Marci, 2006) in the transitioning of perceived interactivity to immersion to engagement, are unlikely, in reality, to be so comfortably linear.

P3: That engagement is the cognitive and affective mechanism by which consumers make sense of the whole of the website, in effect, relate to the brand as personified by the website. It is the mechanism by which consumers give meaning to the whole experience.

Support for this proposition is mostly rooted in the conceptual work on e- learning. The relationship between engagement and a positive strong relationship to a brand is assumed by practitioners and has some empirical support in Wang's (2006) work on advertising engagement. There is a considerable body of work[16] now focused on consumers' holistic response to the website (Petre et al, 2006, Demangeot et al, 2006) and to the brand as personified by the website (Chang, 2002, Coupland Chang et al, 2003, Ha et al, 2005). However, there is no work, beyond that is which conceptually inferred from e-learning literature, one tangential exception in the academic literature[17] and marketing trade literature, that emphatically identifies and empirically validates 'engagement' as a potential positive determinant of this process.

P4: That there is a relationship between engagement and optimal consumer attitudes and behaviour

All the extant, albeit limited, academic evidence, conceptual and empirical, suggests that engagement is a very specific experience distinguished by active, motivated, cognitive processing and emotional bonding. It is thus logical to assume that there will a significant relationship between engagement as an experiential state and optimal consumer outputs. That statement, however, awaits more extensive empirical justification from the academic community.

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[16] This body of work is discussed in section, as it forms part of the rationale for the hypothesised model

[17] Wang (2006)

The definition of online engagement can be reformulated:

Online consumer brand engagement is a specific type of experience. It is the mechanism by which consumers form (opt into) a cognitive, affective, and behavioural relationship with the brand, as personified by the website or other computer mediated entities that interact with consumers. It is the final stage in a tiered spectrum of involvement that ranges from perceived interactivity to telepresence (cognitive immersion in the heuristics of the medium and the website) to a cognitive, affective, and behavioural interaction with the conceptual, experiential manifestation of the brand, generated by the dynamics of the website.

6.3 The refinement of the research model

The evidence not only supports a prima facie case for the model, it also provides material for engagement's operationalisation as a metric beyond the self-reported variable. The revised model with appended dimensional measures, derived from Table 16 can be seen in Figure 8. Though not illustrated in Figure 8, the evidence suggests (Wang, 2006, Marci, 2006) that the intensity, direction, and duration of 'engagement' will be mediated by context. The mediating context(s) may be drawn, for example, from the 'experiential quality' of the website, online peer interaction, the individual own innate attitudinal and behavioural pre-disposition, and the cultural and societal context. A more complete list of mediating factors needs to be established by further empirical research.

FIGURE : RESEARCH MODEL REFINED
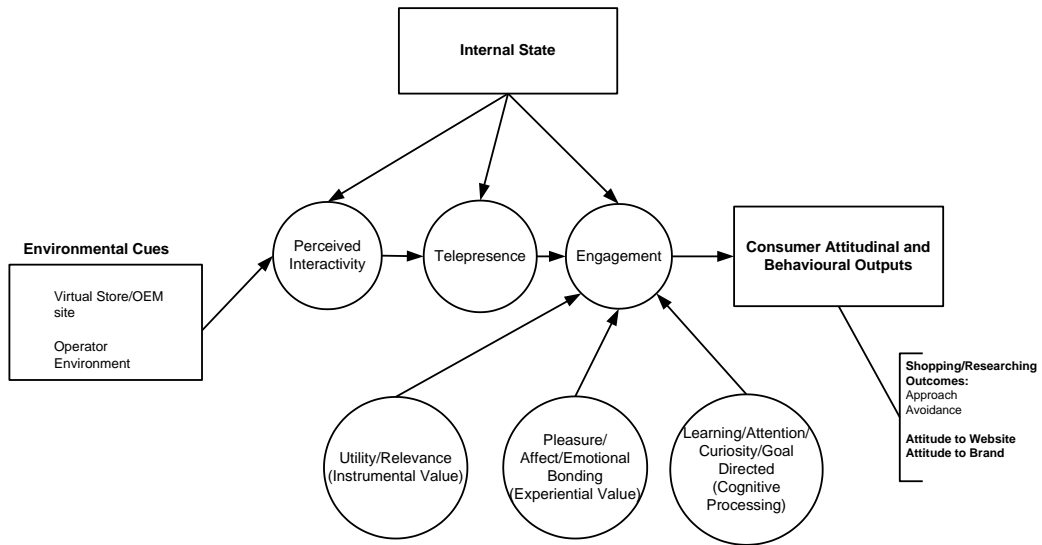
7 REVIEW SUMMARY AND IMPLICATIONS

A review of the evidence has allowed a prima facie case for a model of consumer brand engagement online by providing conceptual and some empirical support for the assumptions underpinning the model. Therefore, the definition of consumer brand engagement online, predicated by the model, is also supported.

7.1 Contribution to research

This review seeks to contribute specifically to existing research in a number of ways:

1. The review identifies a clear scholastic fault line between a structuralist and an emergent experientialist paradigm. The findings respond to academic calls to address this emergent experientialist scholastic (and practitioner) trend by investigating "experiential intensity" in order to complement structural and behavioural measures with experiential metrics. Metrics, which according to the nascent field of neuromarketing may offer a far more efficient way of tracking consumer relationships with brand and cause marketers to invent far more effective structural mechanisms for emotional bonding.
As Ambler, Ioannides and Rose (2000:21) adduce "better remembering is associated with affect". Du Plessis (2007:130), in the context of a paper on neuromarketing, cites Damasio's work on the relationship between emotion and survival of the species, which suggests that "the role of emotion in survival is not one of interference with rationality but of actually determining rationality".

2. The review supports the replacement of the ARF definition of engagement and clarifies the original hypothesised definition of 'engagement'. The revised definition replaces (in the author's view) a loose and inoperable practitioner definition, yet encapsulates the same experiential imperative demanded by marketers, the need to address the issue that "engagement happens inside the consumer,

not inside the medium"[18.] By identifying engagement as a distinct property and as a potential key metric within the extant theoretical references, rectifying a theoretical lacuna in existing studies and clarifying the relationship between interactivity, flow, and engagement, the review delivers a definition that is consistent with the existing knowledge, yet is able to move the research agenda forward.

3. The definition of consumer brand engagement online and the delineation of its operational domain is a first step to the 'experiential' calibration of brand experience at a website.

7.2 Contribution to practice

The findings of this review also seek to contribute to the practitioner community in a number of ways:

1. The review provides marketers with a conceptual model framed within a common discourse, which allows them to analyse their website offerings and thereby to improve future performance.

2. The review takes the first steps towards a mechanism to calibrate consumer experience. Such a mechanism would facilitate a more efficient allocation of resource.

3. By identifying engagement as a moderating and indeed critical variable influencing consumer brand experience online, the review provides the impetus for marketers to internalise that construct into website operational processes. In this manner, it provides a rationale for web operators to adopt the Service Dominant Logic of marketing, even when, as in OEM brand sites that need (in the absence of a retail or service facility) that need is not always apparent.

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[18] Joseph T Plummer, Chief Research Officer, ARF: New York Times, March 21, 2006

7.3   Limitations

There are a number of limitations associated with this review.

7.3.1   *Content*

Driven by a mandate to explore theory, the search incorporated a far greater range of fields of study and a far greater range of publications than a more orthodox review would require. Chapter 4 comments on this in detail. Moreover, given the prior lack of academic interest in the study of engagement, there were few academic inclusions from 3 or 4 star journals. Consequently, the review was unable to rely on journal rankings to provide formal accreditation of academic rigour. For this review, contribution to theory therefore outweighed prestige. While all inclusions were subject to the 'relevance and rigour' test and the selection process was transparent, inevitably, the utilisation of such evidence falls to the judgement of the author.

Focus on the model framework meant that the selection of review evidence tended to be confined to the "theoretical" arenas, irrespective of subject focus (e.g. consumer behaviour, website experience, e learning), of interactivity, flow, and engagement. The selection of appropriate 'theoretical' context is inevitably a subjective one. Time constraints also impeded greater contextualisation: for example, greater examination of the theories associated with the emergent field of neuromarketing might have been revelatory.

One criticism that could be levied is the paucity of practitioner sources about 'engagement' included in the review, particularly when it is the subject of extensive and vigorous debate in this community. It quickly became apparent that for marketers the relationship between 'engagement and a positive attitude to the brand' was a matter of de facto assumption. This is evidenced by the ARF definition and IAB (UK) study, in which dimensions used to measure engagement were essentially self-referential. The selection of very few practitioner sources from an extensive sample was guided by the author's desire to highlight those that contributed most to the debate; inevitably, that is very much a subjective decision. The author is also conscious that the judgement that most practitioner sources were not worthy of inclusion, *because they assumed the relationship between engagement and a positive attitude to brands,* could fall into the 'inductive fallacy' trap – the unwarranted conviction that because the practitioner sources encountered during the search exhibited this 'assumptive' bias, all practitioner sources on the subject are thus tainted.

7.3.2 Process

There were limitations associated with the keyword search process. Since the essence of the review was not only to track competing theories but also, particularly in regard to engagement, to isolate what we don't know, specific key word search, even amplified by Boolean logic, left explanatory lacunae. The technique of snowballing "pursuing references by hand" or by means of citation-tracking databases" (Pawson, 2004) enriched the more conventional search. Furthermore, searching by phrase, specifically, theoretical conjectures in Google Scholar proved more rewarding and served a triangulation mechanism for the whole search process. The recent academic work on engagement was identified by Google Scholar and not the conventional bibliographic databases.

There were also limitations associated with the data synthesis; these have been discussed in detail in Section 6.1

7.4   Learning Points

1. Despite very rigorous and thorough instruction on the subject, writing the review for the author, at least, was still a case of learning 'as you go'. As such, one fundamental learning issue was to understand the optimum (as opposed to unnecessarily excessive) volume of information to be included in the data extraction form. It was a skill achieved somewhat late in the review but the methodology will be utilised for further projects.

2. Even if we skate over the difficulties of methodological heterogeneity and the lack of transparency in practitioner research by evoking the principles of the realist review, such as 'fitness for purpose' and 'contribution to theory', words remain the transmission mechanism and context in which theories are framed. The 'slipperiness' of definitions and the lack of standardisation in operational constructs means that while internal validity (consistency and coherence) in the individual papers remains high, exact comparison is unattainable[19] and one must be cautious about

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[19] Papers may even be replicable (delivering high external validity) and therefore refutable but not necessarily comparable. As Henrickson and Mckelvey (2002:7291) put it, social sciences are unlikely to make 'individual event predictions' due to lack of instrumental reliability, thus "the search and truth-testing process... is defined as fallibilist with 'probabilistic' results".

any generalisation. At best, we can add a piece to an emergent mosaic of understanding until a better fit comes along.

7.5   Considerations for future research

The limited number and recent nature of academic marketing papers dealing with 'engagement' as the principal focus of investigation suggests that we are on the threshold of a new and challenging development. As Hansen (2006:69) puts its "in a very real practical sense, if we can measure emotion associated with a brand, it will enable managers to better understand it, better position it and importantly work toward optimising positive emotional associations with brands".

The reviewer suggests that the findings provide analytical adequacy[20] for the proposition that engagement is a sustainable intermediate variable between the website drivers of consumer experience and consumer's attitudinal and behavioural outputs. It is the aim of the reviewer, as a central part of her PhD contribution, to determine ontological adequacy (i.e. how well does the model represent real-world phenomena).

While engagement, as defined and conceptualised in this review sits squarely in the experiential canon, the plasticity of the model, all the components of the model can be viewed through a structuralist or experientialist lens[21]. This means that it can also be configured from a structuralist perspective[22] to (a) ascertain the structural antecedents of engagement[23] and (b) as a mechanism to triangulate the experiential findings.

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20 Analytical adequacy is explains only model behaviour: the theory has its own internal rationale or if A then B within the scope of the model. Ontological adequacy, or how well does the model represent real world phenomena, is the second stage (Henrickson and Mckelvey, 2005)

21 Interactivity can be structural or 'perceived'. Telepresence has been defined as the experiential correlate of 'immersion'. Slater (2003) is adamant that immersion and presence (telepresence) are logically distinct "the term 'immersion' [stands] simply for what the technology delivers from an objective point of view.... Presence is a human reaction to immersion [a state of consciousness]. Given the same immersive system, different people may experience different levels of presence, and also different immersive systems may give rise to the same level presence in different people". http://presence.cs.ucl.ac.uk/presenceconnect/articles/Jan2003/melslaterJan27200391557/melslaterJan27200391557.html

22 For example, the calibration of consumer response to specific elements of web designs, animation, navigation, marketing communications, e-service provision etc. Ha and Perks' (2005) definition of website brand experience is couched from a structural perspective, being defined as the "consumer's positive navigations (i.e. using web-based communities and participating in events) and perceptions (i.e. the attractiveness of cookies, variety and the uniqueness of visual displays and value for money)".

23 From marketer's perspective, such findings will probably be more accessible, in the sense that the results can identify immediate material improvements.

The model may also be viewed through a third lens, that of a neuro-physiological perspective. Neuromarketing has been defined as "application of neuroscientific methods to analyse and understand human behaviour in relation to marketing and marketing exchanges" (Lee, Broderick, and Chamberlain, 2007:200). Searle (1999) argues, and Marci's (2006) work suggests, that the term 'behaviour' in the above definition must include both physical and mental processes. However, even with sophisticated brain-imaging techniques, extant research is a long way from identifying which part of the brain's 'connectionist' architecture[24] is responsible for which mental process and for which physiological response. Yet this is a valid form of inquiry and one that arguably has less methodological fallibility, in that self-reported experiential measures are replaced, in some instances, by physiological responses, which are more difficult for subjects to control.

It is perhaps a reflection on the essential eclecticism of a realist review that exploration of the subject of neuromarketing was not envisaged, in any way, at the start of the review process. What is certain is that as scholastic marketing researchers move from the study of 'affect' to the study of the 'amygdala', (to some an act of apostasy[25], a plethora of philosophical problems (ethical, epistemological) is likely to emerge. If Karl Popper is correct and "all knowledge is problem solving", then the future in this area is one to be relished.

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24 The computational model, according to Searle (1999) long since refuted.

25 According to Lee, Broderick and Chamberlain (2007) several prestigious scientific journals have alluded to what they considered to be the 'morally dubious' attempts by marketers to locate the 'buy button' in the brain.

8 APPENDICES

8.1 Sources dealing with Interactivity

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8.6   Example of thematic analysis from selected references on flow[26]

Author	Definition	Drivers or Characteristics	Influence on consumers	Findings
Gharbi JE and Soltani I (2007)	Use Li and Shrum definition of interactivity; and Steuer's definition of vividness and telepresence Perceived value – uses Mathwick, Malhotra, Rigdon (2001)	Model – interactivity and vividness lead to telepresence, which leads to flow, which leads to perceived value of the website, which leads to e-loyalty intention.	Hypothesises that telepresence positively influences the flow state Flow has positive impact on perceived value Perceived value affects e-loyalty	Telepresence significantly affects flow (uses Novak, Hoffman and Yung, 1999 scale) – definition plus three items Positive relationship between flow and perceived value (visual appeal, entertainment value, escapism, efficiency, economic value and service)
Huang (2006)	Flow Csikszentmihalyi' "is defined by the presence of intrinsic motivation or enjoyment in an activity that can be precipitated through focusing attention on the activity and the perception of being in control"	"When flow is applied directly to the concept of marketing, it suffers from conceptual ambiguity and overlaps with the popular marketing construct involvement"		Tested most recent navigation; web experience. Curiosity (attention focus and control) related to flow and situational involvement, "curiosity represents the infusion of the flow construct into the existing involvement constructs"
Klein (2003)	Used Steuer's definition and also uses Lombard and Snyder-Dutch (2000) which explicitly focuses on technology's role in generating the "psychological state"	Antecedents of telepresence- media richness and user control	Hypothesis – beliefs about the products advertised will be more strongly held in terms of beliefs about attributes advertised ; strength of attitudes towards products also measured in intensity scale	Telepresence is more easily generated than expected – do not need state of the art 3D experiences (experiment used basic media richness). Telepresence had a significant and positive impact on persuasion , measured at the attribute and at the product level
Koufaris	Cite Csikszentmihalyi's definition of flow "the holistic sensation that people feel when they act with total involvement"	Use the latent variables intrinsic enjoyment, perceived control, and concentration/attention focus"	Hypothesises flow relationship with intention to return and TAM variables "perceived usefulness" and "ease of use"	Enjoyment of the shopping experience and perceived usefulness is important for a new customer to return. Perceived web skills and positive challenges are important determinants of intention to return for first time customers (test only new)

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[26] The thematic analysis is not intended to be the finished product, suitable for publication in a journal. It is simply included to give an insight into the way the thematic analysis was conducted

Author	Definition	Drivers or Characteristics	Influence on consumers	Findings
Mathwick and Rigdon (2004)	Perceived play as experiential value as two dimensions of intrinsic enjoyment and escapism - escapism is a state of psychological immersion and is different from telepresence. Telepresence is 'real' existence in the mediated environment; but commercial sites not capable of inducing immersion?!	PP mediated by involvement	Importance of flow debated for Hoffman and Novak, compelling online experiences will mitigate price sensitivity and change attitudes and behaviours, whereas Zeithamel, Parasuramen et al regard flow (2002) as irrelevant. Categorise perceived play as crucial	PP as a source of experiential value and "situate play as a crucial variable linking flow theory to consumer outcomes Atticus to web site enhanced by compelling and enjoyable experiences.
Novak, Hoffman and Duhachek (2003)	1996 definition	Constructs associated interactivity, involvement, focused attention, skill, control, challenge, arousal, telepresence, time distortion, exploratory behaviour	Evidence that flow is more prevalent for task orientated behaviour than for experiential behaviour.	
Novak, Hoffman and Yung (2000)	"Flow is a cognitive state experienced during navigation that is determined by (1) high levels of skill and control (2) high levels of challenge and arousal (3) focused attention and (4) is enhanced by interactivity and telepresence" Flow is intrinsically	Empirical test on websites in general. They regard time distortion and telepresence as distinct. Refined 1996 model	Only telepresence leads to exploratory behaviour	Antecedents of flow are skill, challenge and telepresence, focused attention lead not to flow but to telepresence and time distortion thereby indirectly influencing flow
Pace (2004)	Definition of flow taken from Csikszentmihalyi's: "Flow is a state of consciousness that is sometimes experienced by people who are deeply involved in an enjoyable activity. The experience is characterised by some common elements: a balance between the challenges of an ac	Flow and the web related to Hoffman and Novak, acknowledges difficult to measure flow empirically.	Flow varies in duration, frequency and intensity - flow exists on a continuum (C) ; linked to joy of discovery; reduced awareness of irrelevant factors. Sense of distorted time, merging of action and awareness, sense of control, mental alertness, telepresence	Components of flow identified
Rettie (2001)	Uses qualitative technique to go back to basics - do Csikszentmihalyi's dimensions of flow work? Flow is unfamiliar to consumers -self-completion questionnaire (memory decay), experience sampling is problematic: measured indirectly or defined and then asked questions.	Merging of action and awareness, focused concentration, sense of potential control, loss of self-consciousness, time distortion, autotelic experience.	Difficulties of research, either teach the concept to consumers or use scale of related constructs "the latter is unsatisfactory because if flow is a distinct holistic experience it cannot be operationalised in terms of other states".	Factors that facilitate flow - interactivity holds their attention and creates feeling of control Flow more likely if they have a specific task rather than fun (upholds Mathwick, Novak) Flow impeded by interruptions, slow downloads, intrusive advertising.

Author	Definition	Drivers or Characteristics	Influence on consumers	Findings
Richard, Chandra (2005)	Use Hoffman and Novak's definition	Drivers are challenge, skills, interactivity moderated by personal factors (need for cognition, optimal stimulation level, personal motivation for visit), outputs are site involvement, exploratory behaviour, attitudes to site.		Interactivity has a weak but positive effect on attitude to site (interactivity characterised by control and synchronicity not 2 way communication) – relationship between OSL and exploratory behaviour, which in turn impacts on attitude to site
Skadberg and Kimmel (2004)	Uses Hoffman and Novak's definition (1996) of flow – factors comprising flow are telepresence: the sense of being in the mediated environment.	Uses particular website rather experience of the web in general		Flow experience is characterised by enjoyment, time distortion and telepresence "the state of telepresence is similar to the characteristics of flow such as complete involvement, focused attention and loss of awareness"; flow experience correlates with in
Skiepe (2005)	Lack of clear definition; specified when used as construct. So current serious inconsistencies	45% of users surveyed experienced flow (Novak, Hoffman, Yung, 2000) Sautter study proposed flow as part of generation approach/avoidance shopping behaviours. Hoffman and Novak speculated that flow would result in increased learning.	Issue for Skiepe does flow cause challenges concentration curiosity and control (reflective construct) or do the latent factors itemised above cause flow (composite construct)	Challenge, concentration, curiosity and control better as reflective dimensions of the flow construct; they are consequences of flow, rather than antecedents
Suh (2006)	Uses Steuer's definition of telepresence and vividness	VR creates telepresence, a compelling experience, and by simulating reality increases product knowledge and reduces risk: Interactivity and vividness increase the intensity of telepresence. The degree of telepresence is affected by the design of the interface	Presumed to increase learning – product knowledge, reduce risk, positive product attitude, affect purchase intention	Higher levels of telepresence leads to consumers perceiving that they are more informed about a product and to feel more positively about the product. PURCHASE INTENTIONS NOT DIRECTLY AFFECTED BY TELEPRESENCE but does contribute to positive consumer attitude
Zwick and Dohlaki (2007)	"Flow states are better understood as the experiential result of transitioning between behavioural modes rather than a cognitive state attributable to a discrete consumption". A perspective of flow as a "holistic gestalt"	Therefore a compelling web experience is "constituted by the sum of flow states across consumer engagement with the site, rather than by the isolated flow experience while pursuing a specific task or mere recreational browsing"	Propositions: Flow is not binary - consumer shift between behavioural modes Flow state in goal -orientated behaviour is different from experiential online shopping behaviour	Flow as series of components and series of propositions: Clarifies the literature on flow Flow is a concept that can be applied to the full range of online behaviour, generated by during experiential and goal-directed experience;

8.7 All References

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