

Critical Theory – An Alternative Solution to IT Planning Implementation Problems in Tourism

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Abstract

Empirical evidence is presented, which suggests that current approaches to IT in tourism are dominated by the assumptions of the Postpositivist paradigm and are failing to meet the objectives they have set for themselves. A theoretical critique of three cases is undertaken highlighting the IT planning implementation problems in tourism. Critical Theory is presented as an alternative to Postpositivism and, in order to address current problems, an evaluative framework is proposed based on Habermas's Theory Of Communicative Action and his theory of System and Lifeworld. The framework is tested in the context of current issues involving the distribution of packaged leisure travel in the UK. Initial findings indicate the need for the UK holiday industry to engage in further communicative action in order to develop a system of online, real time distribution, which can enable its members to meet the changing needs of the consumer. A tentative schema is presented for facilitating this communication.

Keywords: Critical Theory, System/Lifeworld, Habermas, Critique

1 Introduction

The empirical evidence from the mid 1990s, based on a UK survey of 14,000 organisations, indicates that the return on investment from information technology (IT) projects is far from satisfactory (OASIG 1996; cited in Warren and Adman 1999):

- 80-90% do not meet their performance goals;
- about 80% of systems are delivered late and over budget;
- around 40% of developments fail or are abandoned;
- less than 40% fully address training and skills requirements;
- less than 25% properly integrate business and technology objectives;
- only 10-20% meet all their success criteria;

Based on investigations conducted over the last 30 years, only 10% of IT business projects delivered value (McDonagh and Coghlan 2001). Although there is a lack of such extensive quantitative data for the tourism industry, research into the effectiveness of EU-assisted tourism technology projects highlights similar problems, given that 'in all cases projects failed to address post-project sustainability' (Evans and Peacock 1999: 256 citing CEC 1996 report).

In the next section the author presents empirical evidence from the destination, hotel, and tour operating sectors, which highlights some of the IT planning and implementation problems in tourism. This evidence is then subjected to a theoretical critique including a discussion of how Critical Theory can contribute to a resolution of some of these problems. This critique culminates in a proposed framework for evaluating IT in tourism. The framework was tested for the first time during an investigation carried out by the author in November 2002 in a live organisational setting.

2 IT implementation problems in tourism

The following three cases highlight some of the problems facing technology implementation in the tourism industry. The first two cases were reported in the literature, while the third is based on information provided by key informants.

2.1 English Tourist Network Automation

The English Tourist Network Automation (ETNA) project was an attempt to develop an inter-organizational system linking together a number of organisations including the English Tourist Board, the regional tourist boards, and local authorities. Launched in 1990, ETNA was abandoned in 1993 with systems installed in only 17% of the targeted tourist information centres (Mutch 1996).

Tourism is an information-rich product and technically it is possible to move information across boundaries. However, the political borders of the local government authorities and of the tourist boards proved very real and were central to the failure of ETNA. Tourist information centres came near the bottom of the list of local government authority priorities where the chief aim was to standardize data and communication within and across the authority – a policy at odds with the outward facing priority of ETNA. Mutch's review of strategy documentation revealed that, in reality, ETNA was marginal to the IT strategies of both the local authorities and regional tourist boards.

2.2 Yield management system implementation in the hotel sector

Three UK hotel chains were chosen by Peng and Litteljohn (2001) to study the role of organizational communication in the process of strategy implementation within multi-unit organizations. Each chain was in the process of implementing a yield management system. The effective communication of information was critical for multi-unit hotel chains seeking to maximize the revenue from their perishable room stock. The chain that relied most heavily on the implementation of a computerised yield management system was the one that was the least effective. It implemented the project almost entirely from head office with insufficient training and little consultation at the individual unit level. The result was a slow uptake of the yield management strategy and total neglect of the computerised system in some units.

The hotel chain which was successful in its implementation of yield management grounded its initiative at the unit level, working with the general managers of each hotel in identifying suitable candidates to fulfil the role of room revenue managers. The result was a strategic chain-wide strategy with buy-in from individual units and high levels of both vertical and horizontal communication within the chain. The focus in this case was not on the technology but on the people and processes involved.

2.3 GTI

The third case, from the tour operating sector, "was an attempt to produce a 'standard' distribution method for tour operators using a new front-end – a replacement for Viewdata" (personal email communication on 9th June 2003 with Di Lavers, a technology consultant to the travel industry). "Viewdata (the British version of Videotext) has been the principal technology for electronic package holiday distribution in Britain and Ireland for almost two decades and remains so today" (Alford and Karcher 2001: 178). The acronym, GTI refers to the initiators of the project – Galileo (UK), Thomson, and Istel. At that time, Galileo was one of the four leading Global Distribution Systems; Thomson was one of the four major UK tour operators; and Istel (now ntl travel) was one of the two leading Viewdata network providers (Inkpen 1998).

The GTI project failed, not for technical reasons but for commercial and political ones:

"For reasons, which I never really understood, it was all very secretive. And that was part of the problem. The technical side of it (business scenario design, data definitions and message specification was the part I was involved with) was progressing reasonably well. Commercially and politically it was not so easy, as it needed a critical mass of the tour operator community to be viable. The assumption within the project was, I believe, that once the prototype product had been produced, other players would see its value and join in. But of course it didn't work like that (personal email communication with Di Lavers)."

The secretive launch of the project was not a sound foundation on which to build a community of interest. There was also a problem with the basic objective of GTI – the development of a standard distribution method. Standardization of the front-end was perceived by tour operators to mean common selling methods and even common look-and-feel including a reduction in the extent to which they could differentiate their brand on travel agency computer screens.

3 Issues

The main issue arising from these three cases is that a technology-led approach to IT implementation is insufficient for dealing with the complexity involved. "Information systems are complex social systems and as such their success or failure is going to be contingent on a number of variables" (Mutch 1996: 606). These variables included

the “balance of forces between the various organizations involved” and the “relative power of the parties” (1996: 607). A concluding remark in an email from a key informant in the GTI case confirms that similar issues were at play: “...with hindsight, it was never going to work. The message of the whole project is not really about the use of technology in travel, but about commercial and political issues” (personal email communication with Di Lavers). In a bid to step outside the technology-led mindset, which characterizes these three cases, the next section poses a theoretical critique of the issues arising from them.

4 IT implementation in tourism – a theoretical critique

Sheldon notes the prevalence of descriptive and empirical research over theoretical and conceptual in the field of tourism IT research and identifies “theories and paradigm” (2000: 135) as a knowledge area in need of development, advocating the use of interdisciplinary studies. With this in mind the author has turned to the discipline of sociology in order to find a different lens through which to view the cases. The central issues – power, coercion, communication, conflict, and organisational politics – which arise, are essentially human, not technical. Sociological theory provides an alternative position from which to develop a more human-centred view of the tourism IT domain. Guba (1990) provides a model (table 1) classifying the three main sociological paradigms – basic belief systems, which will be used here as a heuristic device for understanding the approaches to IT implementation.

Table 1: Postpositivist, Critical Theory, and Constructivist Paradigms

	Paradigm		
	Postpositivist	Critical Theory	Constructivist
Ontology	Critical realist	Critical realist	Relativist
Epistemology	Modified objectivist	Subjectivist	Subjectivist
Methodology	Modified experimental/manipulative	Dialogic, transformative	Hermeneutic, dialectic

The empirical evidence suggests that the three examples of failed IT implementation were governed by assumptions belonging to the postpositivist paradigm. Although labelled *postpositivism*, Guba notes that its “basic belief system ... differs very little from that of positivism” (1990: 23). Using this framework it is now easy to see how the GTI project was governed by an overly objective approach – an ontology where reality was considered to exist independent of the individual. This worldview led to a lack of consultation with other tour operators, which was to ultimately lead to project failure. “Epistemology is concerned with ... how the world might be understood” (Clarke 2001: 47). The domination of GTI by technical experts reveals its positivist epistemology according to which, “knowledge is hard, real and capable of being transmitted in a tangible form” (Clarke 2001: 47). The assumption underpinning GTI

that "other players would see its value and join in" (personal communication with Di Lavers) exposes a deterministic and manipulative view of human nature – ultimately other four operators would fall in line behind a technically superior system.

Peng and Litteljohn reach the conclusion that Functionalism is an "inadequate approach" and suggest that, "interpretivism allows greater play to be given to organisational context" (2001: 363). Interpretivism corresponds to Constructivism and takes the view that reality is socially constructed and, rather than trying to reduce its complexity, is concerned with interpreting the meanings and relationships which lie behind its construction. Under Constructivism, 'system' is viewed more as an ongoing process of inquiry and making sense, rather than as an end product. However, while achieving a more human-centred perspective in shifting the focus from the technical system to the users of that system, Constructivism lacks the philosophical, theoretical, and methodological grounding for resolving conflict (Burrell and Morgan 1979; Jackson 1990; Clarke 1997; Jackson 2000).

The third paradigm, Critical Theory, exhibits similarities with Postpositivism and Constructivism in, respectively, its ontology and epistemology. Concluding their paper, Peng and Litteljohn find the critical approach to be a useful lens for "understanding the distribution of decision-making authority and power and the consequential influence on strategy implementation in multi-unit organisations with a great range of vertical and horizontal relationships" (2001: 363). However the critical approach goes beyond understanding: "unlike most interpretive approaches, the CST [Critical Social Theory] perspective requires the researcher to attend not only to the matter of mutual understanding, but also the matter of the emancipation of organisational actors from false or unwarranted beliefs, assumptions, and constraints" (Ngwenyama and Lee 1997: 151 citing Lee 1994). Critical inquiry is an overtly transformative and political act with an emancipatory rationale.

Guba identifies a number of movements, which adhere to the assumptions of the Critical Theory paradigm. However it is the Critical Social Theory, as expounded by Jurgen Habermas (1984; 1987), a member of the Frankfurt School of critical sociologists, which underpins the framework presented in the next section of this paper. By using Habermas's Theory of Communicative Action the author is building on an existing foundation in the information systems domain: "One reason for working with Habermas' framework is that his work has had a greater impact on the IS discipline than any other CST [Critical Social Theory] school of thought" (Ngwenyama and Lee 1997: 151).

At the heart of the Theory of Communicative Action is a critique of instrumental reason (Morgan 2002), which Habermas sees as being afforded primacy over practical reason. This imbalance has resulted in a situation where "whole realms of social life are co-ordinated in terms of purposive-rational action and functional reason, with the requirement for mutual understanding and consensus being more or less suspended" (Kemmis 2001: 96). This form of reasoning was evident in the failed GTI project

where the project initiators placed little emphasis on consulting the wider tour operating community. Habermas widened the concept of rationality defining it as "the human disposition to seek understanding and consensus, which he suggests is inherent in our notion of truth" (Swepson 2003: 105). Habermas's 'ideal speech situation', "where all assertions are equally open to critical scrutiny" (Kemmis 2001: 93), is an attempt to find the truth. These 'assertions' embrace three forms of knowledge and three views of the world: objective (*the* world), subjective (*my* world), and normative-evaluative (*our* world). Habermas devised criteria to judge the validity of these assertions: truth, sincerity, and rightness, respectively. Rational IT planning in tourism, from a Habermasian perspective, depends on unfettered discourse between subjects and high levels of participation in the planning process. According to Habermas 'distorted communication' is said to occur when certain factors prevent "the unforced force of the better argument from prevailing" (Swepson 2003: 106). These factors include coercion and power and can be seen to have played a role in the three cases reviewed earlier. Mutch suggests, "that ETNA might have been seen as an initiative "owned by the ETB" (1996: 607) implying that lack of ownership felt by other important stakeholder groups was a factor contributing to distorted communication.

The Theory of Communicative Action contains a "substantive theory (the theory of system and lifeworld)" (Kemmis 2001: 93), which provides a means of reflecting on the problems faced in the context of tourism IT. Habermas argues that social practice is affected by system: "institutions, structures, and functions"; and by life worlds: "local settings in which we relate to others, making sense of ourselves, our co participants, and our relationships in the settings of family, workplace, neighbourhood, and so on" (Kemmis and McTaggart 2000: 587). Understanding the tensions and interconnections between system and lifeworld is, according to Habermas, essential in achieving a balance in society and, this paper argues, similar tensions can be found to exist in tourism IT projects. For example, in finding functionalism an "inadequate approach", Peng and Litteljohn conclude that it was incapable of handling "the rich set of informal activities and communications which play an important part in organisational life" (2001: 363). This set of activities represents the 'lifeworld'. The functional approach was more concerned with reinforcing the formal structure of the organization, which involved "creating channels and erecting barriers to the free flow of information" (2001: 363). This structure represents the 'system'. The hotel chain, which failed to achieve its objectives, had attempted to install a computerized system, which reinforced the status quo but ignored the importance of the lifeworld processes. The hotel, which achieved success in implementing a yield management strategy chose not to focus initially on technology but adopted a more participative approach, attempting to understand the influence of the "great range of vertical and horizontal relationships" (2001: 363). In this way IT could be implemented within an organizational context where there was a better system-lifeworld balance.

Habermas's intention is not for system and lifeworld to be viewed as two separate or opposing entities but ideally as mutually reinforcing ones. Ultimately however the legitimacy of the system depends on the support of the lifeworld and, Habermas argues, if that legitimacy is withdrawn crisis ensues. The renewal of the lifeworld depends on regular communicative action and when that no longer takes place the system increasingly encroaches on the lifeworld, leading to eventual 'colonisation'. "The effect of the colonization of the lifeworld by the imperatives of systems is that individuals and groups in late modernity increasingly identify themselves and their aspirations in systems terms" (Kemmis 2001: 97). In an investigation carried out into the distribution of packaged leisure travel in the UK, the author will demonstrate the applicability of the system-lifeworld theory.

5 A theoretical framework for IT evaluation

Based on Habermas's Critical Theory, a framework (figure 1) is posited as an ideal against which tourism IT projects can be evaluated.

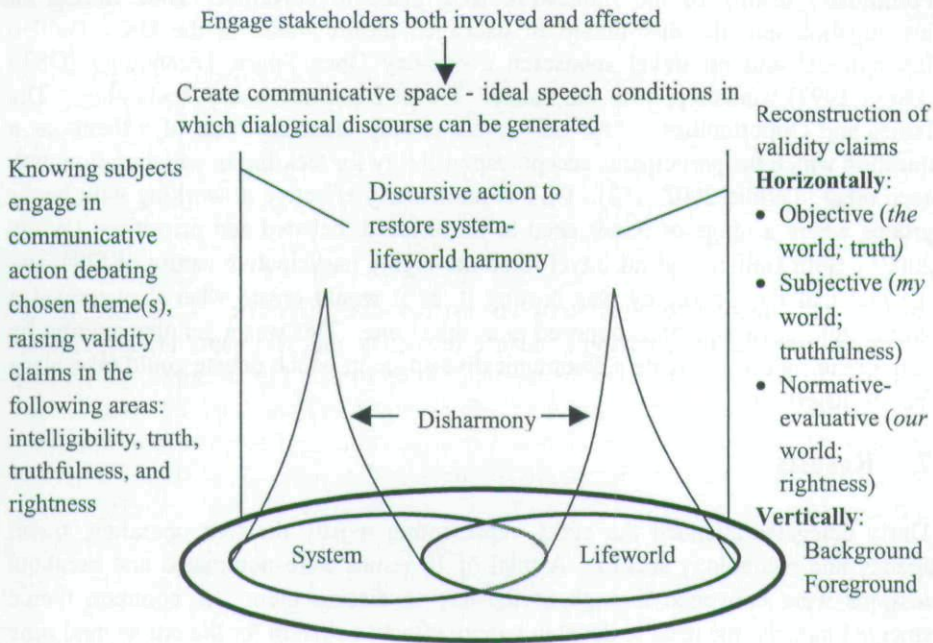


Fig. 1. Evaluative Framework

Firstly, those stakeholders affected by, as well as involved in, the IT project are invited to enter into dialogical discourse. The concept of both the involved and affected is central to the critical approach and its emancipatory rationale. Secondly, a "communicative space" (Kemmis 2001: 100) is created in which open participation

and discourse free of distortion can take place. Thirdly, participants debate the issue(s) at stake. Where any disagreement occurs or clarification is needed in the objective, subjective or normative-evaluative knowledge realms, then discursive action is required. Here the author has borrowed from the field of critical ethnography and its method of 'validity reconstruction' (Carspecken and Apple 1992; Forester 1992; Carspecken 1996). Firstly, the validity claims inherent in any statement are reconstructed and allocated to one of the three knowledge realms (the horizontal dimension). They are then placed on the vertical dimension ranging from highly "backgrounded" to highly "foregrounded" (Carspecken 1996: 112) according to the importance and immediacy, which the person raising the claim attaches to it. The purpose of the evaluative framework is to encourage those involved and affected by an IT project to reach consensus through communicative action and to restore a harmonious balance between system and lifeworld. The practical application of the framework is reported in the next two sections.

6 Methods / procedures

Preliminary testing of the framework took place in November 2002 during an investigation into the distribution of packaged leisure travel in the UK. Galileo International and ntl travel sponsored a one-day Open Space Technology (OST) (Owen 1997) workshop, with the theme: 'Travel Distribution and Technology: The Issues and Opportunities'. "An OST event usually takes the form of a theme or a question which the participants accept responsibility for tackling in collaboration with each other" (White 2002: 153). OST is particularly effective at working with larger groups where a range of issues need to be surfaced, debated and prioritised (White 2002). Both Galileo and ntl travel liked the highly participative nature of OST and the fact that the University was hosting it, as it would create what they termed a 'think-tank' environment as opposed to a 'sales' one. This was a genuine attempt by both organisations to create a communicative space in which debate could take place free of distortion.

7 Results

Thirty delegates attended the event, representing mostly the tour operating, travel agency and technology sectors. A total of 10 issues were nominated and breakout sessions were convened throughout the day to discuss them. A common theme emerged namely, the need to develop a more effective system for the online, real time distribution of packaged leisure travel. An electronic discussion board was set up to encourage post-event discourse. The following are extracts from the message followed by a reconstruction of the validity claims, which they contain (the author has added notes in parenthesis for clarification):

'Perhaps a better choice of title [of the message] might have been "the future of dynamic packaging", because this is the real reason for my interest in access to supplier product.' 'It's my belief that the technology is largely in place to operate

dynamic packaging.' 'I also believe that consumer buying of travel through e-commerce – i.e. CRM, Content Management and booking engine applications – is now the accepted norm across a wide range of holiday products.' 'The constraints that are holding back its [dynamic packaging] widespread adoption are the lack of standard links to suppliers, and the commercial business processes in place with those suppliers that will allow travel organiser systems to book/hold multiple travel components whilst a super PNR [passenger name record] is created.' 'If I had a magic wand, then my top priority would be to transform access technology and open up the commercial relationships to provide real access, on which we can build real aggregation.'

Possible subjective claims

Foregrounded, Immediate

"I have an agenda to promote dynamic packaging,"

Less Foregrounded, Less Immediate

"I am sincere and trustworthy," "I have the best interests of the travel industry at heart"

Possible objective claims

Highly Foregrounded, Highly Immediate

"Technology is not a constraint," "There is little/no requirement for further technological development," "The problem lies with suppliers, particularly hotels, which are not in the electronic supply chain," "Enough consumers are buying travel online to make dynamic packaging a viable strategy"

Less Foregrounded, Less Immediate

"If dynamic packaging is not adopted then established players would lose business as customers look elsewhere," "If suppliers do not enter the electronic supply chain they will lose a valuable source of business"

Backgrounded, Remote

"The travel industry is not able to meet the changing nature of customer demand"

Possible normative evaluative claims

Foregrounded, Immediate

"The travel industry ought to adopt dynamic packaging," "The efforts ought to focus on the suppliers not on the technology"

Backgrounded, Remote

"There ought to be a concerted effort by the travel industry to bring more suppliers into the electronic supply chain"

This method of reconstruction requires "intersubjective recognition" (Carspecken 1996: 144) – the effort to position-take. The objective is to facilitate further communicative and discursive action, which is essential for renewal of the lifeworld. The brief extract above indicates that there is a perceived system-lifeworld imbalance, with the existing system of distribution not offering the online real time capability, which the industry needs in order to be able to satisfy the shifting nature of customer demand. However in order to clarify and confirm this perception there are a number of inherent validity claims, which require further debate. For example, is it *true* that

more customers are demanding online real time availability? Is it *true* that, if they cannot get it they will look outside the traditional chain of distribution to satisfy their demand? Is it *true* that the technology exists to provide this capability but is not being used? An example of detailed discursive action debating the last question can be found on the Travelmole site (www.travelmole.com) under an article "Viewdata to stay, say industry heavyweights". A message refers to "the inherent problems of 30 year old legacy systems", which are failing to meet the "consumer's purchasing preferences". The person from whose message the above extracts are taken replies: "In response to Mike Cogan's post, once again, legacy systems are being incorrectly labelled as inflexible and incapable of functioning as part of a new distribution model. ... This is patently untrue, as Anite's involvement in sites such as MyTravel, Superbreak and Virgin testifies." There is clearly the need for further discursive action in order to establish the 'truth'. The extracts above also contain a number of normative-evaluative claims – how *our* world *ought* to be. This ability to surface the 'ought' positions of others is the "seed of the critical perspective" (Kemmis and McTaggart 2000: 590). Finally one must judge the sincerity of any statements. These concern the personal world where access is privileged, making subjective claims the most difficult to reconstruct. As the managing director of a technology supplier, it is not unreasonable to assume he has a personal agenda and the sincerity of his statements have to be gauged by their consistency over time.

The Open Space event raised the question, "how can the traditional travel industry supply chain better respond to the increasing customer demand for more flexible holidays?" However technology was not central to this debate, which focussed on issues such as the need for business process change, business-to-business relationships, who should be responsible for driving any industry change initiative, and what information do travel agents and consumers require? A pan-European initiative, TOWARD (Tour Operators and Wholesalers Achieving Real-Time Distribution) Europe, has recently been launched, which is addressing this issue. The following objective is listed on its web site (www.towardeurope.org): 'TOWARD Europe will improve electronic distribution and fulfilment of tour operator product to agents and consumers by identifying, agreeing and publishing necessary business processes and standards.' Technology suppliers represent a powerful interest in the TOWARD membership. However during the Open Space workshop, which was voted by delegates as the most significant issue – 'I know technology can be a great enabler - but how do I figure out what to do/invest in first?' – participants observed that technical solutions can fall short of customer expectations and that the customer must clearly articulate business requirements in order not to be a 'victim'. Some of the conclusions reached by the group included the following recommendations: 'Talk to other companies in a similar position'; 'Take time to reach correct decision'; 'Consult users'. This demonstrates that any technical solution must be placed within an appropriate customer-led framework. This paper contends that communicative action involving all stakeholders both involved *and* affected should form the basis of that framework.

8 Conclusions

The thesis underpinning this paper is that technology-led approaches to IT implementation lack the theoretical and methodological grounding, which is necessary to manage the complexity inherent in most (inter)-organisational contexts. The result is a high rate of failure. Critical theory offers a new way of understanding and transforming problem contexts, helping to ensure that the aims of an IT project are based on consensus among stakeholders. Habermas's system-lifeworld theory is a powerful concept for considering the people, organisational and technical dimensions of a problem context. For example, the inability of the existing system to support online, real time distribution of packaged leisure travel indicates a system-lifeworld imbalance. This could result in a crisis if the customer decides to purchase holidays outside the traditional supply chain from, for example, the new breed of online intermediaries. The danger is that those operating within the existing system are unable to see this ensuing crisis. In order to avoid this, communicative action is needed to renew the system-lifeworld balance. A methodology has been proposed for facilitating this.

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