

Joined-up e-Government: an exploratory study of UK local government progress¹

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Abstract

The introduction of e-commerce activity into an industry's value chain has the potential to radically transform it. Some participants may become redundant as others use the Internet to sell their products; new digital intermediaries may enter the supply chain to compete with traditional participants. In the UK public sector, the government is driving forward an agenda for modernisation in its e-Government programme. The target has been set for complete availability of electronic service delivery by 2005. Government policy has been to steer local government away from direct service delivery, encouraging an 'enabling' role, where they are made responsible for commissioning and monitoring service provision by other partners. The intention of the e-Government programme is for councils to become more customer-focussed in their approach, joining up services in ways that better meet customer needs. This joined-up working may horizontally integrate functional areas across the council or vertically join services across multiple tiers of government. This paper presents the results of an exploratory study of the phenomenon of joined-up e-Government. The outcomes of two phases of research are presented. The first phase investigates the extent to which council websites are becoming digital intermediaries in the supply of joined-up e-Government services. This explores joined-up working from the customer's perspective, using a 'life episode' transaction. The second phase evaluates the challenges of joined-up e-Government from the council perspective. Based on qualitative survey work with a sample of council e-champions, it concludes that joined-up e-Government is still more of an aspiration than actuality.

Keywords: e-government, local government, joined-up government, hybrid managers

Introduction

We have now become accepting of the notion of an 'information or knowledge society', in which the use of information and communication technologies (ICTs) play a central role, with the Internet as a fundamental component of much that we do. That is at least the case in the developed world, where such ICTs are often accepted as being commonplace or ubiquitous. The growth of the Internet can be easily observed in a range of sources, ranging from the academic (Slavin, 2000) to the NUA, a market research organisation (http://www.nua.ie/surveys/how_many_online/index.html). Clearly the growth of use of the Internet has been dramatic, with one current estimate placing the number online in September 2002 at 605.60 million (NUA, 2003). These estimates provide only a rough guide to the real use of the Internet, failing to show the disparity in usage between countries of the 'North' and those of the 'South', but also hiding the divide between people within the same countries and cities. The 'digital divide' is clearly an ongoing example of the social exclusion encountered within society.

It is important to remember the origins of the Internet, beginning its existence as a United States military application, before being adopted by the academic world a history now well documented in many sources (Slavin, 2000). A range of associated applications has since burgeoned and the technologies have become integrated into our daily lives in the business, commerce and leisure sectors of our society. This has been trumpeted in the popular press and we have been encouraged to accept this as the latest and greatest revolution for society, with e-commerce at the vanguard of this new world, bringing with it new ways of trading and new ways of envisaging the operation of business (Griffin and Halpin, 2003). The dotcom boom placed the technologies and eCommerce at the centre of business and economic growth, while the dotcom bust has seen a re-evaluation of the place of such technologies they are still seen as major elements of future business. A new reality has been embraced, but still companies at the leading edge of business development see the Internet as a central tool to meeting the demands of a global economy. This has resulted in the development of "New digital intermediaries ... providing added value by match-making between suppliers and purchasers and introducing an environment of trust to reduce the perceived risks of electronic commerce (Sarkar, Butler and Steinfield, 1996). As we have previously suggested (Griffin and Halpin, 2003) this has been "encouraged by the falling cost of Internet connection, and by the explosive growth in availability (Slavin, 2000), domestic consumers too are purchasing products from web sites. In many instances, these websites are digital intermediaries. The UK Government has recognised the benefits of e-commerce and is driving forward the introduction of electronic service delivery by all national and local government agencies (Great Britain, Cabinet Office, 1999). At the same time we hear of the desire for 'Digital Democracy' to be delivered via the same mechanism (Webster, 1999) and of the global growth in 'National Information Policies' (Muir and Oppenheim, 2002). In this sector, too, it is likely that new digital intermediaries will join the value chain, facilitating the supply of information or services from the government to the citizen. This leaves the outstanding matter of the digital divide and citizens, with evidence available that significant numbers of people will not be able to engage either fully or even partially in this new means of provision (Norris, 2001).

This paper will consider how local government is responding to the new culture of e-Governance by examining how it is meeting both public and government demands for joined-up government. It is our view that councils will develop websites that will become digital intermediaries in the supply of joined-up government services, in meeting the government's policy on joined-up government (Great Britain Cabinet Office, 2003). Our contribution in this paper is to initiate the evaluation of local e-government progress from both the citizen's and service provider's perspective. The paper is organised as follows. First we review the policy drivers that have led councils to enter into partnerships for delivering local social services and to deliver these services electronically, with particular attention given to the role of government in setting this agenda. Then we review the theoretical context of the study, identifying the methods

applied in data gathering in the two phases of the research carried out. In particular, we examine the roles played by intermediaries in joined-up working. Finally, we present the findings from two phases of research, a pilot study of council websites and semi-structured interviews with e-Government leaders in selected councils, and draw some conclusions about progress being made in joined-up service delivery.

E-Government Drivers and Themes

In the UK the council performs a wide variety of roles. The most significant of these are service provider, regulator, strategic planner and advocate for the local community (Leach and Stewart, 1992). It is the service provider role that concerns us in this study. The shape of this service delivery has dramatically changed in recent decades. The policy of successive governments has been to steer away from direct service delivery by councils, making them an 'enabler', commissioning and monitoring service provision by other agencies and private companies (Great Britain, Cabinet Office, 1991). This represents a transition from local government, with service delivery by a bureaucratic, democratically-elected public body, to local 'governance', service delivery through a network of public and private organizations (Horrocks and Bellamy, 1997). This definition of governance has been challenged by some researchers. Finger and Pecoud (2003), for example, argue for a wider definition which includes stakeholder participation in policy making and regulation activities in addition to service delivery. Nevertheless, in this paper, the underlying assumption is that local and central government will still play a major role in leading, controlling and, indeed, legitimising these emerging governance arrangements. This 'state-centric' view contrasts with the 'society-centric' approach taken by some researchers (Flinders, 2002).

According to Ling (2002), governance is typified by:

- New types of public-private partnership arrangements
- Less hierarchical relationships between organisations
- The blurring of boundaries between functional areas
- New approaches to the management of relationships between the partner organizations

These new governance arrangements are founded upon 'joined-up' working, a practice that has been put forward by government, at different times, to achieve the goals of public policy (Flinders, 2002). In central government there have been various strategies for improving cross-departmental working, including departmental amalgamations ('super ministries') and the setting up of special groups covering a particular theme, such as the Performance and Innovation Unit, the Regional Co-ordination Unit and the Social Exclusion Unit (Lee and Woodward, 2002). At the local government level, a recent example is the new responsibility, under the Local Government Act 2000, to establish local community plans, working in partnership with other local governance

stakeholders. Clearly, moves to develop joined-up services pre-date e-Government and are not limited to this aspect of public policy.

In this paper, we define joined-up service delivery as being the supply of an integrated group of public services, combined in ways that suit customer requirements, sourced from a range of partner organisations. The services being joined-up may be separate service areas from within a council. Alternatively, the partners may include other councils, national government, the voluntary sector and private companies. This joined-up working may be accomplished by merging structures, sharing budgets, combining in joint teams or sharing information between distinct teams, or developing a joint customer interface such as a website or portal (Great Britain, Cabinet Office, 2000).

Our emphasis in this paper is to investigate joined-up electronic service delivery within the e-Government programme. In doing this, we are adopting a definition of e-Government that equates it to the implementation of e-business practices in the public sector (Beynon-Davies and Williams, 2003; Ebrahim, Irani & Al Shawi, 2003). In addition to service delivery, this also incorporates the use of ICT to transform back-office business processes. Others argue that that this definition is too narrow. E-Government also includes the e-society; setting up the community infrastructure to enable citizen's to engage in electronic activity, and e-democracy, using ICT to raise citizen participation in the democratic process (Janssen, 2003).

In recent years, the Government has embraced many of the business practices from the private sector. The adoption of e-commerce as the approach to modernise government service delivery is just one of these. Finger and Pecord (2003) argue that this New Public Management treats the citizen as merely a customer. Beynon-Davies and Williams (2003) do not accept that the private sector philosophy is suitable for the public sector. The citizen fulfils a complex set of roles in his relationship with government. Interestingly, however, the term 'customer' is used exclusively throughout their empirical study of e-government service delivery. There are significant differences between the two sectors: the customer is the passive recipient of private sector services, whilst the citizen is the owner of the government service (Stahl and Butler, 2003); the customer purchases services, whilst the citizen also takes part in non-economic exchanges, as a beneficiary or obligatee (Alford, 2002).

Ling (2002) identifies four main dimensions of joined-up working. In its original context, his model was used to explain the general development of cross-cutting public policy. Here we apply it to investigate notable aspects of joined-up e-Government. These dimensions are:

- **Factors internal to the organization** that impact upon the working arrangements. The culture and values in the partner organisations and their approaches to information management are aspects of interest in this area. E-Government should benefit the service provider by delivering improved efficiency as layers of management are removed (Ebrahim *et al.*, 2003). However, this re-engineering of processes and responsibilities might not be easy to achieve. Political turf wars might break out (Bannister,

2003). There is also a risk that existing bureaucratic working practices might be bolstered by new integrated computer systems (Fabri, 2003).

- **The co-ordination and control of the partnership** itself. Council elected members face the challenge of sharing decision making with external partners (Fitlog, 2001a); the shared leadership might be accompanied by a pooled budget (Office of Government Commerce, 2003); the partnership may be organized horizontally, integrating functional areas from a single tier of government, or vertically, in which related functions across multiple tiers are integrated (Layne and Lee, 2001; Flinders, 2002). This approach to service delivery represents a 'paradigm change in public policy' (Richards, 2002, p 61) and will take considerable political will and flexibility to implement successfully. Other potential difficulties might include incompatible computer systems operated by the partners and differing views about how best to serve the citizen (Stahl and Butler, 2003).
- **Accountability** for the spending of public funds. Local authorities are individually held to account by the Government using performance measures and targets reported in Best Value reports and IEG statements. These focus on front end activity rather than the integration of services (Beynon-Davies and Williams, 2003). Joint working across the levels of government, and with other agencies, introduces new complexities for target setting and scrutiny (Wilkins, 2002). However, the Government warns that these arrangements should not impede the introduction of joined-up working (Great Britain, Cabinet Office, 2000). The e-Government programme requires a sizeable investment in technology and systems. A key accountability issue will be the monitoring and management of the realization of the organizational benefits from this investment (Ward *et al.*, 1996).
- **Approaches to joined-up service delivery.** Customer-focused information provision may be limited to the 'front-of-house' with little integration of back office systems and processes (Ling, 2002). It might extend to inter-organisational information systems (Fitlog, 2001b), providing a seamless service (Richards, 2002). As service delivery has been externalized to other parties, local governance is being provided by a network of public and private organizations (Wilson and Game, 2002). Channels for delivery of this joined-up service include websites, one-stop-shops and call centres. Websites, or portals, may act as an intermediary to groups services for a target group (NAO, 2002), offering flexible delivery of services (Horrocks and Bellamy, 1997). The one-stop-shop offers a physical location from which to deliver partner services and possibly integrate roles. Increasingly, call centres are being established for this purpose.

Local government has embarked upon a sizeable investment in new technology and systems in order to meet the centrally-set e-Government targets. What is the relationship between ICT and government modernisation? There has been a long standing debate about whether ICT makes a positive contribution to private sector organisational productivity (Brynjolfsson, (1993). The public sector has been slower to exploit ICT (Beynon-Davies and Williams, 2003) but here, too, there are divergent opinions as to the benefit of ICT. Those who adopt the utopian viewpoint consider that ICT has the power to improve operational efficiency, managerial effectiveness and, ultimately, transform the processes and services of government. Proponents of the dystopian viewpoint expect the implementation of ICT to be problematic, reducing the scope of organisational change and benefits (Criedo and Ramilo, 2003).

The UK e-Government programme was initially set out in the Modernising Government White Paper (Great Britain, Cabinet Office, 1999). This proposed that government at all levels should become more customer focused, delivering services through a range of new channels that suit the customer, rather than being organized to suit the service provider. The e-Government programme is not merely a strategy for updating the technological systems of government. It represents a significant programme of change: challenging existing government organizational models, modernising and transforming the processes and activities in the service delivery supply chain. The White Paper also promoted joined-up government, envisaging a future in which cross-agency working would provide an integrated service for the customer.

The accomplishment of this programme is dependent upon the successful introduction of new business processes supported by ICT. Effective information systems management will play a pivotal role in ensuring that the new systems are adopted effectively (Gottschalk, 2000).

Councils are expected to reach the target of full electronic service delivery by 2005 (Silcock, 2001). A fund of £350m was allocated in the Government Spending Review 2000 to help them to resource this (DETR, 2001). Councils are required to submit annual Implementing Electronic Government (IEG) statements to the Government, documenting their plans and progress towards the 2005 target. £160m from this fund has been allocated to support these plans. Following the submission of the second IEG statements in November 2002, the Local Government Minister declared that the local government sector was on target to achieve the 2005 target (ODPM, 2002c).

Approximately half of the e-Government fund was reserved for a series of projects of national interest. Seventy-five million pounds was specifically allocated for partnership projects. Announcing the funding, the Local Government Minister said:

"This is an important step in our ongoing programme of taking forward the local e-Government agenda. These partnerships will be crucial in joining up the different tiers of government." (ODPM, 2002a, p 1)

Several of these projects involve councils and other agencies working jointly to provide a single website access point for accessing their services.

The potential for joined-up electronic service delivery is further discussed in the National Local e-Government Strategy (ODPM, 2002a). It advises councils to develop a strategy in which "you should consider how your council could work with a full range of potential public, private and voluntary service providers and how you can act as an intermediary for government services" (p 22).

All councils have now established a web site (Socitm, 2003). Thirty-nine percent of their services are available from these websites (ODPM, 2002b). According to the National Audit Office (NAO, 2002), the extent of online service availability varies across the different types of council. County councils had made most progress; district councils had made least progress. The NAO suggests several reasons for this: the Counties have a larger pool of resources; they offer a narrower range of services; they have been quicker to focus on customer service and the development of websites to protect themselves from possible abolition. Regional variations in electronic service provision have also been identified. London and South-Eastern councils have made most progress, possibly in response to local demand. These are areas with a high percentage of households with PCs and a high percentage of workers in knowledge-based industries.

But are citizens interested in accessing digital government services? Recent consultation exercises, carried by local councils, suggest that the majority of customers still prefer human contact either by visiting a council office or using the telephone. Other general signs are more encouraging. Household access to the Internet continues to increase. Forty-six percent of UK homes have Internet connectivity compared with thirteen percent just two years ago (National Statistics, 2002). The cost to the consumer of using the Internet has decreased in recent years as a result of competition between Internet Service Providers and the introduction of flat-rate fees covering telephone time as well as Internet connection.

Concern has been shown by both researchers and practitioners about the likely effect of the digital divide on the e-Government programme (e.g. Carto and Weiss, 2001; Norris, 2001; NAO, 2002). Will households possessing an Internet connection obtain better quality public services than those without computers? Some sections of society, who may have the greatest need for government services (Silcock, 2001), as they experience the 'wicked problems' requiring joined-up support (Flinders, 2002), may be disadvantaged by their lack of Internet facilities. The National Audit Office (NAO, 2002) suggests that the digital divide is one of the key inhibitors to the success of the e-Government programme. Councils need to ensure that universal access to services is maintained for all customers (Taylor and Webster, 1996). The Office of the Deputy Prime Minister, in the National Local e-Government Strategy (ODPM, 2002a) argues that e-Government provides the opportunity to reduce the effect of the digital divide. This strategy identifies three ways in which Councils should be able to reduce social exclusion: by making the Internet available to customers in public buildings; by delivering electronic services through other channels such as public kiosks and digital television; by ensuring that the needs of disabled people are taken into consideration. The Peoples Network

(<http://www.peoplesnetwork.gov.uk/>, 2003), which is a project to link all UK public libraries to the Internet, is seen as one key response to the digital divide, however the use of libraries is not universal and the same excluded groups and communities are again evident here. It is argued by Norris (2001) that the digital divide is linked closely to key indicators of social exclusion, with a strong statistical and empirical case made for this. If the emerging trend in local government digital provision is to be a success this issue will require careful consideration. The alternative is to create new cyber-ghettos, to replace the old real world ones.

Digital Intermediaries in joined-up Service Delivery: The Theoretical Setting

In most industries, the manufacturers of products do not sell their goods directly to the ultimate customer. The production and delivery of a product may involve action by several intermediaries between the manufacturer and the consumer. In the retail food industry, for example, distributors and supermarkets are intermediaries connecting the food processors to their consumers. This process may be represented as a value chain (Porter, 1985), comprising of a number of linked activities carried out by independent parties. Some of these activities add value to the product (e.g. production, distribution, sales) and others are supporting activities which add to its cost (e.g. resource management, co-ordination between the participants in the value chain). Modelling the value chain in this way aids understanding of the interaction and information flow between activities. It also provides a vehicle for examining the efficiency and effectiveness of each element in the chain and its interfaces to other elements. There has been a recent trend for organizations to concentrate on their core competencies, outsourcing other value-adding and support activities to specialists in those areas (Currie, 2000).

Introducing e-commerce activity into the industry value chain has the potential to radically transform it. One possibility is that disintermediation will result (Benjamin and Wigand, 1995; Gellman, 1996). When consumers are able to search for, and purchase directly from, the manufacturer's website, the traditional distribution and sales intermediaries will be no longer required. Another possibility is the arrival of new digital 'cybermediaries' (Sarkar, Butler and Steinfeld, 1996; Bailey and Bakos, 1997), competing with the traditional intermediaries for a place in the value chain. These dotcom companies are using their websites to sell to customers, particularly threatening intermediaries whose value-adding activities involve the stocking of finished goods (Bakos, 2001).

In some industries, re-intermediation is being observed (Chircu and Kaufman, 2001). The traditional intermediaries are responding to the threat posed by 'cybermediaries' and are introducing e-commerce facilities of their own to supplement their face-to-face service.

The digital intermediary, providing the interface between the customer and the other participants in the supply chain, performs several value-adding roles

(Bailey and Bakos, 1997). They *aggregate* the demand from many customers and aggregate the products from many suppliers, reducing the transaction costs to both parties; they *facilitate* the transfer of information between producers and customers; they *match* customers searching for a product with producers wishing to sell their goods; they offer an environment of *trust* for the transaction to be completed.

The present study investigates the delivery of joined-up e-Government to consumer services using the council website as the digital intermediary. Table 1 lists the most important intermediary roles in this type of market. From the customer's perspective, the service transaction may be viewed as consisting of three phases: the *information phase*, during which the customer gathers information about suppliers; the *agreement phase*, during which the order is placed with a particular supplier; and the *settlement phase*, during which the service is delivered and paid for (Jannsen and Sol, 2000).

Role	Intermediary Service
Facilitation	Search for information, information exchange
Matching	Match to facilities: product information to customer, market information to supplier
Trust	Security, authentication and quality assurance
Aggregation	One stop shopping

[Adapted from Bailey and Bakos (1997)]

Table 1: Roles performed by joined-up e-Government intermediaries

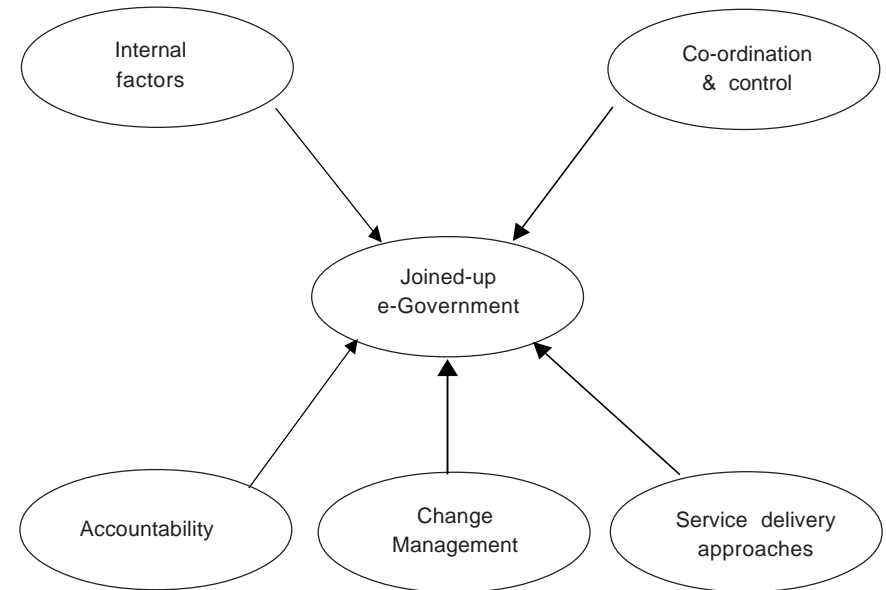
The Empirical Study

Research framework

Figure 1 contains the framework which forms the basis for the empirical study. This extends the model proposed by Ling (2002), adding a further dimension: change management. Our research suggests that this factor makes a significant contribution to the progress of joined-up working. It is too important to be subsumed within one of the other dimensions.

Phase I takes the customer perspective and evaluates an electronic service delivery approach with which customers interact without recourse to service provider staff. This is the website, grouping and delivering joined-up services. This phase concentrates on the central position that councils occupy in joined-up partnerships and reviews how the council website is progressing as an intermediary in the supply of services from its partners.

Phase II takes the service provider perspective. It examines the challenges faced by councils and their partners in developing joined-up working arrangements. All of the dimensions of joined-up e-Government are considered as part of this investigation.



Adapted from Ling (2002)

Figure 1: Dimensions of joined-up e-Government

Methodology

Phase I

The first phase of this research evaluated joined-up electronic service delivery from the customer perspective. The website access channel was chosen for this purpose. Thirty council web sites were selected from the index of council web sites maintained by the Tagish Consultancy Company (www.tagish.co.uk). This has been the sampling frame for a number of previous studies (Horrocks, 1998; MAPIT, 1999; MAPIT, 2001). The sample was limited to English councils with Local Education Authority responsibility in order to provide a consistent basis for comparison for the service being evaluated. Thirty county councils, London boroughs and metropolitan boroughs were chosen from this index for appraisal. The composition of the survey is shown in Table 2. District and unitary councils were omitted from the sample. District councils are not involved

in the selected service. The unitary authorities, established between 1995 and 1998 in non-metropolitan areas, are responsible for a similar range of services to metropolitan borough councils. However, at the time of the initial phase of the study, it was considered to be too early to evaluate electronic service delivery by this new tier of local government.

An evaluation framework was constructed (Griffin and Halpin, 2003), consisting of standard structured questions following the practice adopted by previous studies (Cullen, 2000; MAPIT 1999; MAPIT 2001; Horrocks, 1998; Schubert and Selz, 2001; Stowers, 1999). The questionnaire was piloted and verified using two of the thirty web sites and was also discussed with a chief officer from one of the sample councils. The researchers collected the initial data during April/May 2001. The survey was repeated in January 2003 in order to plot e-Government progress in this area.

Type of Authority	Sample size
County councils	10
Metropolitan boroughs	15
London boroughs	5
Total	30

Table 2: Composition of the survey

Evaluation was carried out using a 'life episode', an event for which people need to collect information from a range of service areas within local government and other agencies (Martin and Morton, 2001). The life episode chosen was the selection of a local school. It provided the opportunity to measure the extent to which the council had developed its web site to facilitate joined-up electronic government service delivery involving three parties: the LEA, the school and the Government School Inspection Service, Ofsted. The evaluation criteria used are listed in Table 3.

Transaction phase	Intermediary service	Criterion
Information	Search for information	Locate local schools
	Match to facilities	Identify school facilities
	Quality assurance	Check Ofsted report and performance information
Agreement	Match to facilities	Apply for a place at the school
Settlement	Match to facilities	Allocation of a place

Table 3: Evaluation criteria for selection of a local school

The evaluation was conducted using a previously developed framework (see Table 4) for assessing any type of joined-up transaction. This scores each criterion on a four-point scale: 0 = no facility; 1 = emerging intermediary; 2 = partial intermediary; 3 = mature intermediary.

Phase II

This phase of the study examined the challenges of developing joined-up working from the service provider perspective and featured qualitative survey work.

All councils have appointed an e-champion to lead their e-Government programme. The e-champion is often a senior member of staff with distinct hybrid characteristics. Ninety-one council websites were examined to identify the name of the officer e-champion. Sixty-three websites returned the officer's details to the general search request of 'e-champion'. A short questionnaire was emailed to these nominated e-government leaders, requesting their participation in the interviews. Nine of them (15% of the sample) returned their completed questionnaire and five e-champions agreed to an interview. The composition of the survey is shown in Table 5.

Transaction phase	Emerging intermediary	Partial intermediary	Mature intermediary
Information Search for information	Names displayed in a list	Names displayed in a list having nominated a geographical area	Map based access to information
Match to facilities	Basic product or service information provided	Detailed list of facilities provided	Standard structured list of requirements for comparison between suppliers
Quality assurance	Some general quality comments or indirect access to appropriate QA elsewhere on the web site	Indirect access to appropriate QA details	Direct access to appropriate QA details
Agreement	Contact details provided	Booking process initiated	Booking process completed
Settlement	Settlement contact details provided	Settlement process initiated	Settlement process completed

Table 4: General Framework for Evaluating Joined-up Service Delivery through a Website

Semi-structured interviews lasting 1-1.5 hours were conducted. All interviews were taped and transcribed in full. The focus of this particular empirical research phase related to key aspects of the management of the e-Government programme. Questions probed their level of involvement in the following areas:

- development of the Implementing Electronic Government statements,
- visioning the process,
- relationship management with major partners,
- expectations and aims for the e-Government programme,
- defining and prioritising individual projects including benefits management programmes,
- managerial alignment with the ICT management structure within the organisation;
- potential problems and resistance to the changes encountered and
- change management strategies adopted to overcome resistance

Type of Authority	E-champions
County council	A
Metropolitan borough	B and C
District council	D
London borough	E

Table 5: Composition of the e-champion survey

Findings

Phase I

Councils and their partners will be making a significant investment in systems and technology over the next three years in order to reach the target of 100% availability of electronic service delivery by 2005/6. The Society of Information Technology Management estimates that the total cost of e-Government for UK councils will be £2bn (Socitm, 2003). This current study is the second in a series that assess how they are developing over this timescale as intermediaries in the delivery of e-Government services. In the eighteen months since the initial study (Griffin and Halpin, 2003), significant progress has been made by all three tiers of local government. Table 6 shows the extent to which the sample authorities have become intermediaries in the school enrolment service delivery. It also highlights the percentage increases in observed intermediary behaviour since the survey conducted in April, 2001. All three types of authority continue to be better information intermediaries (average score = 1.57) than they are at assisting in the agreement (average score = 1.24) or settlement phases (average score = 0) of the enrolment transaction.

However, the evidence of this survey suggests that this type of electronic joined-up service delivery is being increasingly implemented by councils.

Type of Authority	Information phase		Agreement phase		Settlement phase	
	Average score	%age increase	Average score	%age increase	Average score	%age increase
County Council	1.83	31%	1.3	30%	0	0
Metropolitan Borough	1.64	14%	0.83	24%	0	0
London Borough	1.23	12%	1.6	Up from 0	0	0
Intermediary average	1.57	14%	1.24	85%	0	0

Table 6: Intermediary role in joined-up school enrolment service delivery

The County councils continue to make most progress as digital intermediaries in joined-up school enrolment service delivery. There may be several reasons for this. Firstly, this tier of government already has long-established relationships with, and interfaces to, the district councils within its administrative area. It is perceived by residents in the locality as the point of reference for public service enquiries. This paves the way, from both customer and supplier perspectives, for the development of electronic intermediation by the county council. Secondly, as this level of government has been under the threat of abolition, we might be observing attempts by county councils to re-enforce their role in local governance (Horrocks and Bellamy, 1997). Thirdly, its performance as intermediaries in this particular joined-up service might not be matched in other service areas. There is some evidence to suggest that the county councils' facilitation of other types of transaction might not be as developed as other tiers of government (Griffin and Halpin, 2003). Further research is required, both over time and across a wide range of services in order to draw conclusions regarding the comparative performance of different types of council.

This study has identified that council websites continue to operate as emerging intermediaries in the supply of delivery of joined-up school enrolment services. However, gradual progress is being observed in the way they perform their intermediary roles.

Facilitation

All of the sample councils facilitate the search for information about schools in their area. In the majority of cases, this is limited to public sector schools. Furthermore, geographical communities do not always match up to council administration boundaries. Whilst web technologies offer the potential to support community-based service provision, it appears that councils are currently limiting themselves to providing lists of schools within their own boundaries. To obtain

a complete picture of the local education provision within a community which cuts across neighbouring authority areas, parents would need to consult each of the council websites separately. In partial recognition of this geographic issue, some councils have included links to the surrounding authorities on their websites.

Matching

There are marked differences in the degree of assistance provided by the sample authorities' websites in matching customer requirements to the services on offer. Some simply list the name and addresses of schools. More mature intermediaries provide additional details, using their accumulated knowledge to assist in requirements determination. This supplementary information might include the number on roll, links to the school's own website, attendance rates, extracts from the school brochure, etc.

Trust

In e-commerce transactions, trust is most needed during the settlement phase of the transaction. Some customers are reluctant to pay for goods over the Internet because they are concerned about potential security breaches (Bailey and Bakos, 1997). Intermediaries can add value by providing a secure environment for settlement of the transaction. The council intermediary, as a respected local brand, is also able to supply the means to increase the level of trust during the information phase of the transaction. In its education monitoring role, it collects a wide range of information from schools (e.g. school brochure) and government agencies (e.g. Ofsted report, comparative GCSE results) which it could make available to consumers to provide quality assurance for the results of their information searches. There may be joined-up services for which the council would be reticent to provide a quality rating due to the cost of gathering and maintaining up-to-date information. This is unlikely to be an issue with regard to the school enrolment transaction. Any observable reluctance to provide quality assurance by the digital intermediary in the school enrolment information phase may be more politically motivated.

Aggregation

The website can add value for the customer by providing access to related services when they access the school webpage. This provides the opportunity to join-up services both horizontally and vertically (Layne and Lee, 2001). Some evidence of this was observed. For example, one authority provides the facility for planning the route to school at the bottom of the school details page. It contains links to a site containing the train time table and to a site which helps drivers to plot their route to school.

Phase II

This part of the study examined the challenges faced by councils in developing joined-up working arrangements. The issues encountered in of all

of the dimensions of joined-up e-Government (see Figure 1 on page 8) are discussed. The material in this phase of the research has been anonymised and the subjects will be referred to as A-E as found in Table 5: Composition of the e-champion survey (page 10).

Internal factors

Internal factors internal within the partner organizations may have an impact on the development and longevity of the joined-up working arrangements. Three of these factors are the culture, the separate and collective strengths of the partners and organisational characteristics which may cause conflict between the partners.

Culture: This relates to rituals or routines, stories about the organisation, power structures, symbols building to develop an overall paradigm of the norms of working internally and externally (Johnson and Scholes, 1999). The e-champions gave an indication of the culture through frequent repetition of key aspects of it: being customer focussed; managing relationships both internally and externally; being willing to change and move towards real joint working. Authorities D and E clearly appear to be proactively supporting change from a top down perspective whilst at the same time recognising the importance of customer service to e-Government success. Previous experience at joint working and one stop shops in authorities C, D and E has established a culture that paves the way for joined-up service delivery. E-champion D stressed the importance of this previous experience:

"It is strength of this Council that they have always worked in partnership."

Collective strengths: Why should several organizations devote scarce resources to plan for and develop joined-up service delivery? Two possible reasons are gaining access to resources with competencies that they do not possess in-house and, secondly, being able to achieve greater benefits than could be gained by the authority working on its own (Das and Teng, 2002). Gaining access to the more specialised resources of their County Council partner was one the motivating factors for the District Council e-champion (E). The joined-up working arrangements should also deliver mutual benefits to all the partners (Henderson, 1990). E-champion D emphasised this aspect of their consortium's successful bid for government funding in this way:

"We put in a bid [to the government] and got £600,000...The first thing we're getting out of this money is free web content management software...and we're going to share the training and the learning. That is wonderful, because we don't have that level of expertise in-house."

Conflict: There is a greater possibility of conflict arising between the partners if they have different operational practices, approaches to decision making and technology (Ling, 2002). In this study, e-champion A discovered that his influencing skills were not sufficient overcome the resistance to change:

"I kind of assumed that we may be pushing against an open door, but

the door is not open, I'm not even sure it's there."

This resistance was rooted in past relationships and power cultures, making the move towards joint working became more difficult. Councils are historically structured around disparate service areas ('silos') such as education, housing, social services and leisure. These service areas each have been managed through delegated budgets with a considerable degree of autonomy. Successful joined-up government ultimately requires cross-service barriers to be bridged in order to achieve Best Value targets and efficiencies. Evidence from the interviews suggests that the integration of inter-departmental services and systems is difficult to achieve. E-champion C recognised the importance of the social integration of IT staff with service departments, closing the cultural gap between them (Peppard, 2001).

"I think we have changed the culture. We have the IT folks sitting on the same management teams and groups as the folks who are responsible for the customer services" (e-champion C)

Co-ordination and control

A key aspect of the management of joined-up government is the co-ordination and control mechanisms of the partnership, both internally and externally. Components of this include: shared decision making structures, shared leadership of projects, pooled budgets and last, but not least, the existence of political will to drive the platform of joined-up government forward.

Decision making structures: Authorities B-E demonstrated well developed structures for joint working parties and committees internally. E-champion C stated:

"We have a Transformation Board in the Authority, which has senior officers on it – including the City Treasurer - and key Cabinet members who are involved in transformation".

E-champion E offers an insight into the attributes required of members of the decision making body:

"Our [e-Government] Management Board, called the Negotiation and Implementation Team, has five chief officers on it. They tend to be chosen for their belief, enthusiasm and influence. So we've got the chief officers on there that actually have an influence on the whole organisation."

Where external partners were drawn together for joint planning meetings, agreement was evident, but on returning to the agreed actions at later stages in the change process, previous agreements had been questioned in one particular instance. This point needs to be investigated in line with associated concerns in the third dimension in relation to accountability and deliverable targets.

In several of the Authorities, previous ICT initiatives, such as initial Internet access and GIS systems, have left a legacy of multi-level control structures which clearly required rationalisation early in the e-Government programme. The ability of the management board to align the ICT-driven elements of joined-up government with the wider information management strategy of the council may prove to be a critical success factor.

Pooled budgets: Most of the Authorities (B-E) had set aside funding for their own one-stop shops. This ranged from shared accommodation with separate staff for each functional area (E) through to a call-centre staffed by customer service assistants supported by a customer relationship system I.

Political will: Political will and support were seen as key to success. E-champions D and E suggested that their elected member e-champions and member committees were key change enablers, whereas the e-champion at Authority A was struggling to engage councillors with the aims of the programme. He summed up the position:

"E-Government is not high on the priority list of Members".

Interestingly, the e-champions in Authorities D and E pro-actively sought member involvement to drive the initiatives. This element of management philosophy relates to their own culture and political development within local government. This will be further discussed in the change management dimension below.

This analysis has concentrated on horizontal joined-up service delivery within the Authority. There is less evidence of the political will to give priority to vertical joint working. E-champion E explained:

"We're looking at working with other agencies, but it is not progressing as quickly as I'd like...I took a paper to our local strategic partnership...I would like to develop working relationships with them and develop projects that we could seriously do joined-up work on...Our Head of Partnership Working has been a little bit slow in organising that, so I'm still waiting."

Accountability

This dimension deals with the accounting for expenditure of public money. Targets and scrutiny arrangements are fundamental aspects of this. In particular, this study sought to identify alignment of e-Government targets with Best Value indicators and benchmarks. This alignment is key to the success of IS-supported change programmes (Ward and Peppard, 2002).

Targets achievement: Discussion in the interviews focused on project approval and the management of the realisation of benefits. The approval and assignment of project resources is an important management activity. Complexity is added in this instance by the links to the multiple service area budget plans which feed into the e-Government programme. Furthermore, the past two decades have seen a move away from internal monitoring and control by service professionals towards efficiency targets, such as Best Value, set by central government. In the interviews, the majority of e-champions referred to targets in terms of customer service improvement and customer relationship management. Authority C had identified cost savings in line with its transformation programme and had developed a management control mechanism to monitor delivery and efficiency savings, but this was not the norm. In a culture that is driven by benchmarks and performance management, for both front line and back office service delivery, linking the e-Government

programme to established performance management initiatives may be critical to success.

Service delivery approaches

The use of the Authority website as a service delivery channel has been investigated in phase I of this study. None of the sample councils are involved in the Pathfinder projects to introduce regional websites. However, the London borough was involved in discussions to set up a portal serving a geographic area of London. This is still in its initial stage of development, as the e-champion explains:

"We're looking at developing a joint community portal that will enable people to search across and find information from seven boroughs."

In the interviews the e-champions also mentioned their progress in setting up front office one stop shops and call centres. Authority C had initially implemented a call centre for environmental health services. This had been recognised as a success and was now being further developed into an Authority-wide service centre. Several of the authorities were considering setting up a joint call-centre or one-stop-shop along with other local partners, such as the Citizens Advice Bureau, the Police or the Benefits Agency.

E-champion B outlines their plans:

"The Police have a purpose-built call centre, just about ready to roll. We're looking to share premises with them in phase 1...Then we'll look at areas that we can integrate or make efficiencies out of".

Currently, the plans for the delivery of services through call centres or one stop shops, shared with other agencies, comprised of different service areas locating in one public space but operating independently within that space. One authority (A) e-champion commented upon the resistance, stemming from previous working relationships, which was inhibiting the move towards joint working of any sort.

None of the sample authorities has yet set up a customer relationship system to provide an integrated interface to their disparate back office systems. Evidence from the interviews suggests that an integrated approach may be the desired long term goal but one which is yet to be achieved.

There are a number of joined-up development and implementation projects being promoted nationally. Authorities C and E are both members of regional consortia implementing a smart card across their region which will interface to selected back office systems in each participant authority. However, these projects were still under development at the time of this study.

Change management

We have added a fifth dimension to Ling's (2002) framework which widens the scope of the model to include change management aspects. Effective change management will be vital to ensure the successful implementation of e-Government, but it is fraught with problems (White, 2000), especially as it is often undertaken in a pragmatic and systematic way (Lovell, 1995). Ebrahim *et al* (2003) highlight the importance of strong management in meeting the

challenge of integrating systems and processes. The analysis of the role of the e-champion in leading change has interestingly highlighted parallels between these individuals and change agents labelled as 'hybrid managers' in the business transformation and competitive advantage literature (Earl and Skyrme, 1992). These hybrid managers have adopted roles in their organizations that enable them to bring together knowledge and understanding of the business dimension in combination with knowledge and skills relating to the ICT dimension, essentially allowing them to act as bridging mechanisms in information management projects. Most of the e-champions in our sample exhibit these characteristics. They have occupied functional roles within their councils over an extended period of time that has enabled them to develop their understanding of the culture, politics and key stakeholders. Their track records have shown them to be effective change enablers. In addition, they have gained experience of managing ICT resources within their councils.

The only exception to this was in authority A, where the e-champion had found difficulties as a newcomer to the organization. Here particular problems have been encountered in terms of gaining cross directorate and management support for a holistic change programme to be developed. This is an area which will be the subject of further research by the authors. This will investigate the adaptability of leadership in local government (Parry, 1999) and contribute to the hybrid manager debate in the light of challenges to its continued appropriateness (Currie, 2000).

Conclusion

For the e-Government agenda to be successful, local government needs to undertake a major change programme, transforming front of house services, back office supporting systems and business processes, to the enable joined-up services to be effective (White, 2000). In this paper, we have assumed that councils will play a central role in the delivery of joined-up services. The evidence from phase I of our research is that some council websites are making progress as intermediaries, providing a value adding interface to the services of other providers. However, the majority of the councils in our sample are still operating as emerging or partial intermediaries. If councils are to retain their position as the supplier of joined-up services, they need to design websites that better achieve the intermediary role.

Layne and Lee (2001) suggest that that electronic joined-up service delivery tends to be the final stage of e-Government development. This conclusion is supported by phase II of our research. We have extended Ling's framework (2002) to produce a model for evaluating joined-up e-Government. Our exploratory investigation found that councils are still involved in the early stages of e-Government development. Of course, major change programmes like this one should be viewed as a multi-staged process (McKeown and Phillip, 2003). Councils are making initial moves towards joined-up service delivery, internally and with other organizations. However, across all five dimensions in our e-Government model, there are major challenges still to be

resolved. At the present moment, in many councils, joined-up e-Government remains more of an aspiration than reality.

These, then, are the conclusions from the initial phases of our research. However, the survey instruments used have a number of limitations. In particular, the sample size was small in both phases and interviews were only conducted with e-champions. Further research is needed which extends the sample of councils and includes discussion with other senior staff and the partners of the selected authorities. Furthermore, we have concentrated upon e-service delivery. Different findings may have resulted from a wider definition of e-Government, including progress in e-democracy, for example. We have sought to utilize intermediary theory that has been primarily employed in research in the private sector to this point. This theory does not fully take account of the rich variety of roles undertaken by a citizen in response to public sector service delivery.

Councils are still in the early stage of implementation of their e-Government programmes. As its rollout gains pace, future research could evaluate whether this multi-million pound investment is providing value for money in terms of operational efficiency, managerial effectiveness and transformation of processes and services.

This particular issue is currently gaining attention within the UK Government. It has recently been recognized that 100% electronic service delivery, by itself, is not a sufficient goal (Great Britain, Cabinet Office, 2003). There also needs to be an assessment of how successful these services are in providing added value for customers. The Government anticipates that customer take-up will be improved by facilitating a 'mixed economy' of joined-up service delivery, in which new intermediaries from the private and voluntary sectors will emerge to re-package some electronic services in a format that will be beneficial to public service customers. Future research should explore this hypothesis.

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