

# Transformation of City portals

## Abstract

This report contextualises the development of e-government portals by cities and provides a simple four-phase model to describe their customisation of service provision. It goes on to discuss the transition from one stage of provision to another and explores some of the issues underlying the proposal for phase four to democratise this transformation of government by allowing citizens to participate in the development of user-centric services.

## 1 City portals: the transformation of service provision

### 1.1 Introduction

As gateways to electronically-enhanced services, city portals provide online access to a growing number of e-government services. As such they have been successful in exploiting the opportunities technology offers to make local and regional government services available over the web. Today in the North Sea Region, almost all larger and 'small-to-medium' sized cities have portals offering varying levels of online access to services. As electronically-enhanced services they are seen as valuable alternatives to traditional modes of provision as governments can now use digital technologies to deliver customized products, readily available online and via multiple channels. These changes are taking place in the context of the ongoing development and take-up of social networking services and Web 2.0 technologies, and ongoing pressures for increases in delivery efficiency and improvements in service levels.

### 1.2 The evolution of city portals

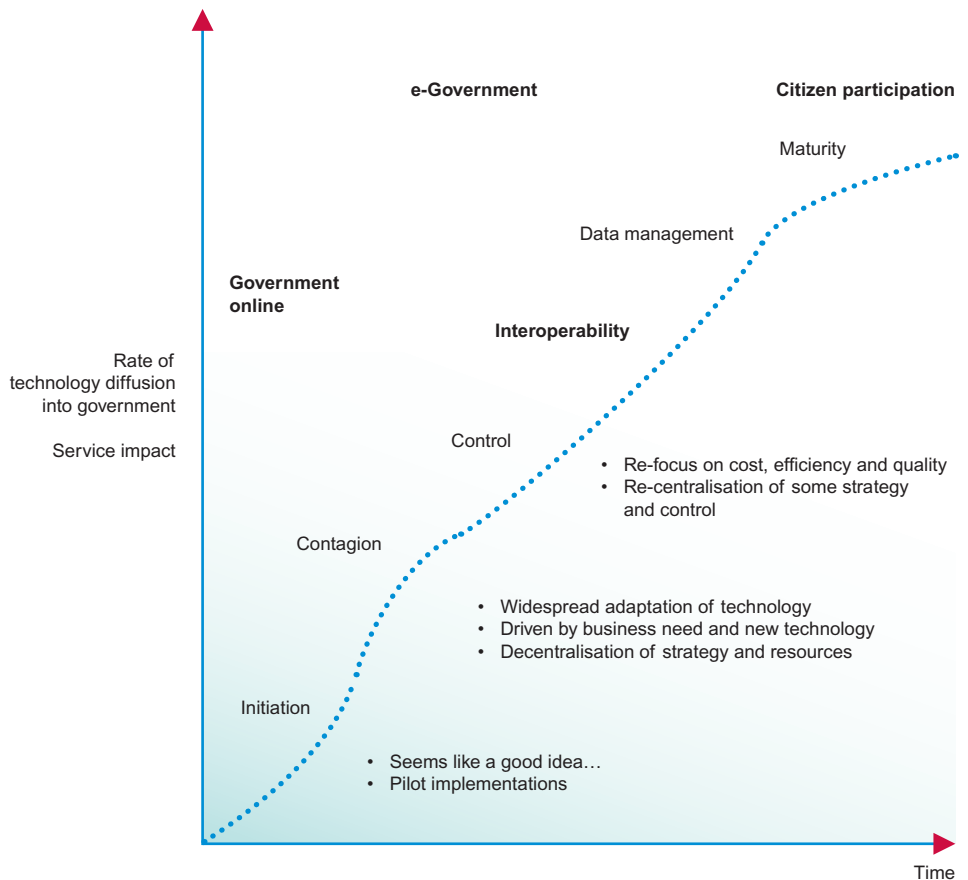
City portals are core to this modernization of government and they are understood to have undergone development in a number of phases. Here, a four phased model is outlined:

1. Information provision: where websites provide information about available (offline) services;
2. Interaction with data: where portals allow users to engage with the material hosted online and to interact with it
3. Transaction support: where portals offer web-based service transactions increasingly customised to meet user requirements for multi-channel access
4. Participation: where portals enable citizens to participate in decisions taken about further online service development.



In moving between these phases, portals are said to undergo a process of transformation. The early models and phases of portal development are often influenced by 'New Public Management' approaches, where citizens are generally treated as passive customers. The last phase, towards participation, is a major step-change in the development of e-government services, at the core of which is the integration of online consultation and deliberation over proposed service changes and the participation of users as citizens in the democratisation of decisions taken about future levels of provision.

The transformation from simply putting government online (phase one and two) to e-government (phase three) can be illustrated as a two S-shaped learning curves in Figure 1 below. The diagram also shows the interoperability needs of the transformation as preceding those of data processing and knowledge management, and serves to highlight the level of maturity required for e-government service developments to be classified as 'smart'.



**Figure 1**  
IT e-government maturity curve  
(Adapted from Davison 2005)

As the breadth and depth of portals increase, it is inevitable that different cities and the departments within them will be at different stages in this development process. For our purposes, the fourfold classification is useful as it identifies the processes underlying the development of city portals, and allows us to track their progression from youthful experiments in tele-presence to mature exercises in the deployment of digital technologies as platforms for extending web services and as part of an attempt to democratise decisions taken about future levels of provision.

For comparison, Accenture has a five-stage model of transformation of e-government:

1. Online presence
2. Basic capability
3. Service availability
4. Mature delivery
5. Service transformation

Note this representation stops before citizen participation is reached

### 1.3 Bringing citizens to the fore

Representing the transition of city portals as a shift from youthful experiments to mature deployments is also useful because it not only captures the four phases of development, but the fact the progression from one phase to another is also based on a changing user community whose digital platforms rest on an emerging set of modelling languages, enterprise architectures, organisational networks, integration frameworks, collaborations, protocol standards and core technological infrastructures. Approaching the transition in this way allows us to identify the community of practice and analyse it by type of user, drawing particular attention to citizens, businesses and both the leaders and officers of local and regional government, as the organisations involved in this enterprise. It throws light on the need for the technologies underlying the community of users to not just be digital, but digitally-inclusive.

It is with the transformation of service provision from phase three (transactional) to four (participatory) that citizenship surfaces as a key agent of change. Current research suggests that this transition rests on the following:

- Firstly the development of front-line services dealing with citizen enquiries as customers, capable of being dealt with through automated service responses and the use of avatars to complete transactions: the 'call centre' approach to the transformation. This can be seen as the culmination of phase three.

- Secondly, the development of post-transactional services and those not representing citizens as customers, but as partners in the consultations and deliberations they, government and business are engage when considering and subsequently agreeing future levels of provision.

The challenge city portals have faced as they mature has been that of matching the diversity of user community expectations with the digital platforms which are needed to meet their personal and corporate organisational requirements. Whether this is being achieved by user or political/strategic pull, or through technology push can vary between organisations with significant impacts on outcomes.

It is evident that these fourth stage city portals have a diverse community of users whose data needs to be personalised and information customised so that as users of the sites they can browse, enquire, query, comment on and even challenge the content of the communications. This is because citizens now have a long reach into service provision and cut deep into matters concerning data supply and information exchange, so much so that citizens have now become a major driving force behind the development of fourth phase portal developments and key to their future.

This development is significant as their communications are now becoming more extensive and this longer reach is based on a deeper engagement with the process of service provision which in turn develops the well known typology of communications codified as:

- citizen to government
- government to citizen
- business to government
- government to citizen
- citizen to business
- citizen to citizen
- business to business

All these types of communication need to be joined-up, routed, channelled and pro-actively managed, not only as transactions but as cases in the management of a democratically-driven transformation, where the services of previous phases are bundled together and configured to offer a higher level of provision. The increasing level of transparency demanded often requires internal processes to be redesigned as 'back-office' exercise to hide or remove the complexity of the process from the citizen's perspective.

#### 1.4 A framework for progress

It is evident that we need to benchmark city portals, measuring them against such factors as:

- Surveys of recent city portal development that identify examples of good practice in managing the transitions between the phases
- Analyses of city portals drawing on cutting-edge research and technical development projects and paying particular attention to leading regional and local examples;
- A classification of the portal's attributes by the user community - citizens, business and government – with an assessment of the weight given to citizens as key drivers of change in this user-centric development.

This can be used to place an e-government portal's location in the development path and to produce an appropriate strategy for progress: it is only appropriate to plan for a phase transition once the portal has successfully reached the previous phase.<sup>1</sup>

<sup>1</sup> A future Research Brief will provide a framework for characterising a Smart City, which will support this self-characterisation.

A strategy for development of the services offered could be defined in terms of:

- presentational challenges and multi-channel access needs
- enterprise architectures, underlying business models and their associated interoperability requirements
- the technical and semantic challenges underlying their operation within distributed systems of vertical and horizontal (front and back-office) integration.

Actions that may be involved could follow a step-wise logic, for instance:

- setting out and agreeing a clear vision of the community's expectations of the e-government services offered over the digital platform
- breaking with the silo mindset of the past by replacing isolated legacy systems with integrated service provision
- integrating existing service modules by using middleware capable of linking back-office functions to the front-end and connecting the communications of one with the other
- using the technical and semantic interoperability of the middleware to route services to the respective user communities to meet their expectations underpinning this transformation with the organisational learning needed and knowledge management systems required to institutionalise the new working practices such a collaborative platform for the delivery of services develops.

Any transformation should be underpinned with the organisational learning needed and knowledge management systems required to institutionalise the new working practices such a collaborative platform for the delivery of services develops.

This process of systems integration is not without risk, and issues of intellectual property rights, privacy, personal data security, identity theft and commercial sensitivity need to be addressed. Any actions taken to develop city portals should, therefore recognise and take steps to mitigate these risks.

### 1.5 Conclusions

As gateways to electronically-enhanced services, city portals provide online access to a growing number of e-government services and they have been successful in making local and regional government services available over the web. This success can be measured by the proliferation of portals offering online services in large and 'small-to-medium' sized cities. Portals are now seen as valuable alternatives to traditional modes of provision as governments can now use digital technologies to deliver services over the web and make them readily available online via multi-channel access. Portals are core to the modernisation of government which can be said to have four phases in their evolution: information, interaction, transaction and participation. This classification is useful because it can be used to position e-government development proposals against the backdrop of other similar actions taking place elsewhere and plan this transformation in accordance with the step-wise logic available to guide the process from one stage to another. It is important to identify and manage the risks that are associated with portal development.

Under the fourth (citizen participation) phase of portal development, the service platform is wide ranging and deep, personal, corporate, organisational, sector-based and thematic, set within government frameworks and built on open standards which allow platforms of this type to exploit the opportunities the internet provides to work collectively, sharing data and services between organisations, subject to appropriate controls over confidential and private data.

With this transformation of service provision it is citizens who come to the fore. It is here where the developments undergo the transition from phase three to four, and citizenship becomes a key agent of the change in the process of service provision. We suggest the changes are two-fold, with a 'call centre' approach to the transformation being needed before the development of post-transactional services and seeing citizens not as customers, but partners in the development of user-centric services.

For transformation to be sustained, it is necessary for the user community to be able to reflexively double back on itself and discover the point where the vested interests of government, business and citizens strategically align with one another and coalesce around the transition from the notion of customers to that of partners.

## 2 Further information

### 2.1 Related reading

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## 3 Document information

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### 3.2 Intended audience

Those involved in understanding or designing a strategy for the development of municipal e-government portals.

### 3.3 Critical issues addressed

The need for city administrations to be clear about the extent, scale and scope of e-government developments and challenges the transition from phase three (transaction support) to four (citizen participation) poses in terms of citizen participation, democracy and the transformational value of the shift towards user-centric service provision.

### 3.4 Document history

**Date** : 2009.04.01  
**Version** : 2  
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[www.smartcities.info](http://www.smartcities.info)

[www.epractice.eu/community/smartcities](http://www.epractice.eu/community/smartcities)

The Smart Cities project is creating an innovation network between cities and academic partners to develop and deliver better e-services to citizens and businesses in the North Sea Region. Smart Cities is funded by the Interreg IVB North Sea Region Programme of the European Union.

Smart Cities is PARTLY funded by the Interreg IVB North Sea Region Programme of the European Union. The North Sea Region Programme 2007-2013 works with regional development projects around the North Sea. Promoting transnational cooperation, the Programme aims to make the region a better place to live, work and invest in.

