TEN STEPS TO MASSIVE TAKE-UP OF EGOVERNMENT IN EUROPE

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Abstract: This paper reviews the main factors driving take-up of eGovernment applications in Europe. It develops ten key actions that, if followed, result in a dramatic increase in eGovernment usage. The work breaks new ground in a number of areas – for example the recognition that the factors affecting take-up fall into two distinct groups. The first is a vital set of preconditions: increasing any of these above a threshold will never in themselves result in a major take-up increase. The second group is a set of factors all of which raise take-up dramatically but which require the first to be in place before they work. The biggest single factor to which insufficient attention is currently paid is sharing of benefits with users – a culture change in Europe to encourage this will result in substantial take-up increases.

1. Introduction

Public sector organisations across Europe have spent fortunes on eGovernment. As yet they have seen little benefit: citizens and organisations are still not using eGovernment much, as demonstrated for example by the average usage levels quoted in the Taylor Nelson Sofres 2002 survey [1].

This lack of usage in depth is hurting the European public sector. The cost of delivering an additional access channel is not yet matched by the benefits of handling a substantial number of accesses in what should be a far cheaper way than other channels (eg one-to-one meetings or postal enquiries). European citizens and organisations are also suffering. Only a few are getting the benefits of improved service and reduced costs that they should be getting by accessing public sector content by digital means.

2. Objectives

A Working Group [2] set up by e-Forum [3], the EC-sponsored European eGovernment association, was established in late 2002 with the principal objectives of understanding the key factors driving take-up of eGovernment applications and of developing a set of guidelines for implementers on the best ways of rapidly achieving high take-up. The focus of the Working Group is practical: the guidelines must be readily implementable & usable.

3. Methodology

A key finding of the Group, that in turn has driven the methodology of the group's research, is that there are two types of factor that influence take-up. The first set of factors is referred to as Necessary Conditions. Without these Necessary Conditions, services are unlikely to be much used, but in themselves they do not generate much excitement. Thus, people will not share sensitive information with the public sector unless they are comfortable about the security of their connection; once that threshold has been reached, further efforts to improve security will have little impact on take-up.

The second set of factors is referred to as Potential Drivers. These are factors that are key to achieving high take-up. When the right Necessary Conditions are in place, these Potential

Drivers take over as the important factors determining usage. Thus, to extend the previous example, once users are comfortable about the security of their connection and other similar factors, most will only make the odd transaction. However if they perceive, say, a financial benefit to using eGovernment services, they will use them more intensely – double the benefit and take-up will grow substantially.

This separation is analogous to Frederick Herzberg's separation between 'hygiene' and 'motivational' factors for employment [4]. Of course this classification is, as with Herzberg's original, not absolute, but helps to explain why simply improving one factor can at times dramatically improve take-up but on another occasion can have no effect.

4. Necessary Conditions

The Necessary Conditions for take-up are:

- Infrastructure
- Awareness & Acceptance
- Trust
- Process & legal change
- User focus

4.1 Infrastructure

It almost goes without saying that a primary requirement is for infrastructure, to deliver the connectivity. Once the connectivity is adequate for the use though, any further increase in bandwidth has only a marginal impact on take-up, as was very evident when attempts to roll-out broadband preceded the applications that needed the extra bandwidth.

4.2 Awareness & Acceptance

Unless users are aware of any service, usage is bound to be low. Likewise, until users accept that an electronic service can deliver what they require, take-up will be low – for example it took a little while before most people began to accept that Amazon really could sell them books even though it was not a high-street store.

4.3 Trust

The issue of trust is often quoted as the main reason why people will not access government services electronically. This feels intuitively correct – you worry what government will do with information that, now it is electronic, can be sent anywhere, accessed by anyone. With electronic information it somehow seems much easier than with paper. Add to that the seemingly ever-lower overall level of trust in which the public sector – across much of Europe – is held and you have a potent cocktail discouraging usage.

Yet intriguingly the statistics are at best equivocal on this. For example, the survey quoted earlier [1] found that the take-up of eGovernment, say in the UK in 2002 by citizens was just 13%, whereas that for, say France was 25%. However 26% of people in the UK trusted electronic communications with the public sector whereas only 15% in France did. This very much supports the Group's contention that trust is a Necessary Condition

Analysing the concept of trust in more detail, it consists of a number of separate factors:

- Confidentiality – assurance that data will not get into wrong hands;

- Integrity – assurance that data will arrive and will arrive complete to the right person;
- Authentication – assurance that you are who you are (and they are who they are, as receivers of your information and money);
- Faith – in the administration;
- Control – over your data (can you get it back; can you change it?)

Of these, confidentiality and authentication both merit particular discussion. Confidentiality is a justifiable concern of many citizens, because of the many recent occasions where organisations have inadvertently exposed personal data on the Internet, or where data given for one purpose has clearly been used for another. Here we meet a major cultural divide across Europe – on one side are those countries like Denmark and Belgium where a single citizen identifier is considered acceptable, where identity cards have been held for many years and where digital certificates are being – or are about to be – issued to all their populations. On the other side are countries like the UK and Germany where a single identifier is neither culturally – nor, now, legally – acceptable. Intriguingly most countries in Europe with single identifiers enjoy a higher degree of trust from their citizens than those without – they achieve this by a very rigorous structure to prevent abuse. Some, such as Belgium, have a strong PR campaign to build and retain the trust of their citizens.

Authentication via digital certificate will be a particular problem for those countries without a single identifier, as a private company would need to make a significant charge to issue them to citizens because of the potentially huge liabilities that could be incurred if an error was made in the issuing. However even when such authentication might be required, clever process change can often eliminate the need for it.

The benefits of single identification are already becoming evident in for example the Belgian social security system (where those eligible for additional benefits are automatically sent cheques for these by the system), the French Vitale healthcare card (that has eliminated one billion paper claim forms, to date) and in Denmark where citizens receive a draft income tax return from the Government, 70% of which required no amendment at all last year (the vast majority of the remainder only needed a single minor adjustment).

Surprisingly, none of these examples actually requires authentication stronger than a password and user id, which suggests that the need for so-called 'strong' authentication is often over-exaggerated by some public sector organisations, perhaps seeking justification to avoid modernisation. Support for this comes for example from a recent ICM/Hedra survey [5] that found that only 38% of UK citizens "would prefer not to use the Internet for public services because it is not secure", whereas an even more recent survey of senior UK public sector employees by the eGovernment Bulletin [6] found that 57% considered that "security concerns are impeding the public take-up of electronic services".

4.4   Process & Legal Change

Because successful eGovernment relies on a fundamentally different delivery structure to paper government, a process change is often required anyway. Thus departments – and administrations – need to work together in ways they rarely have in the past to deliver services that centre round the entity (citizen or organisation) being served. This will never work without recognizing that it is a major change management challenge which in turn needs a strong champion at very senior level to resolve the many issues that such radical change inevitably produces.

4.5   User Focus

User focus is the last of the necessary conditions the Group has identified, one element of which is interface design & navigation. With over 3000 [7] public sector websites in the UK

and many more than that in more decentralized countries like Germany, the scope for confusion is high, especially if very few of the sites do anything of real value. Parts of the European public sector still expect citizens to know which organisation supplies which public services; they reject the idea of a portal driven by postcode or other such indicator that will automatically connect people with the services relevant to where they live, work, holiday, or just are. With up to six layers of government in some countries, even those in the public sector get confused, so such a portal is essential. The Netherlands and the UK [8] have recently introduced one – the Group will be following these developments closely.

The Group found very few 'repellers' – factors that on their own will reduce eGovernment take-up. Three are worth mentioning: credit cards, extra scrutiny and crashing sites. As the less well-off tend to need to contact government more often than the better-off, financial instruments like credit cards that predominate among the better-off can prevent take-up by those who need the services most. If tax returns submitted electronically are subject to extra scrutiny, then clearly this will discourage electronic submission, as will sites that crash in the middle of complex tasks.

Another element of user focus is the widely-recognised need to develop competence at using the technology. Users need to have the appropriate education and skills, although as the social inclusion charity Citizens Online [9] has amply demonstrated, giving people secure connectivity and good competence still does not drive up usage – they need something to make them want to come back, which is where Potential Drivers come in.

5. Potential Drivers

The potential drivers for take-up are:

- Content
- Cultural alignment
- Alternative channels
- Communication
- User benefits

5.1 Content

An essential – and obvious – requirement is content that users want to access. One of the unfortunate legacies of initial eGovernment programmes was their heavy focus on applications that would benefit the sponsoring government/department, not the user. Thus typically the first interactive application in most administrations was for tax payment – not a topic that many citizens would give their highest priority to!

However where tax authorities have also subsequently implemented applications for returning money to citizens in the form of grants or allowances, take-up has been much higher. For example, the percentage of applications for the UK's Child Tax Credit and Working Tax Credit received online is already far higher than the percentage of those in the UK filing their tax returns online, even though the tax credit application has only recently gone online. (It is important to remember that, whether an application receives tax or pays allowances, it still results in a significant benefit to the public sector in terms of reduction in administration costs compared with the paper alternative, and still speeds up the decision-making process.)

5.2 Cultural Alignment

Another way of increasing take-up is alignment with the culture. There are certain things that each culture finds easy to accept, whereas others find it far harder. Thus, in Sweden & Denmark, one easy way of overcoming the previously mentioned security issues is to send

people already-completed tax returns (on paper) for them to confirm (electronically, ideally) their correctness. In Sweden & Denmark, that is culturally acceptable; in the UK it probably would not be.

5.3 Alternative Channels

A major usage driver that is also strongly culturally related is alternative channels Here intermediaries have a particular role to play – these are organizations that regularly deal with people and organizations anyway and so are well placed to deliver eGovernment services best. For example in Italy all tax returns are filed electronically: there are about 130,000 authorised tax intermediaries (accountants, professional tax preparers, trade associations, tax assistance centres, etc.) who file tax returns electronically at the Finance Ministry for 38 million taxpayers (36.6 million individuals and 1.5 million companies). In France, filing via qualified intermediaries is encouraged by a 20% tax reduction to recognise the benefit in quality and ease of administration. In Denmark the culture is different though: Told Skat, the Tax & Customs Ministry, do not see intermediaries as playing an important role in increasing the (already high) take-up of online tax & customs applications, preferring where possible to deal directly with end users.

Intermediaries can also integrate the public sector elements into a more appealing whole – thus, again as in Italy, the filing of the tax return is just a small part of an overall financial service. With the loss of trust in the public sector, intermediaries can be used too to lend their trustable image to eGovernment services. The UK is doing some particularly innovative work in using intermediaries to increase eGovernment service take-up.

5.4 Communication

Another way of getting people to use new services is to communicate the benefits, yet it seems to have had very mixed results so far in the realm of eGovernment. In France it encouraged many more visits to the public sector portal, but no significant increase in transactions. In Canada it had little impact on eFiling of tax returns.

The Group has studied this factor especially closely and concluded that there are three particular issues with online advertising that impact its effectiveness:
1. Premature marketing – politicians want a quick hit and advertise the service before it is fully mature. Peoples' perceptions are easily damaged, making it hard to get people back to visit the site again when it is more mature. A good example of this was the recent experience of WAP phones where no matter how much WAP was advertised, people were not prepared to use what was initially seen as a slow and poor service.
2. The big difference between browsing and doing – if you've travelled some distance to a store, then the difference between standing outside and looking in and buying is fairly small. But if you've gone there in the click of a button to look, and now need to find and type in without error your 16-digit personal identifier, then set up & memorise an alphanumeric six character password that cannot contain any meaningful syllables, before filling in all your personal details yet again, all before you can receive the required electronic service, you might decide to stop at browsing!
3. Online products are almost unique in being deliverable half-built – advertisers rarely encounter such products. (Perhaps there is a similarity with eg the 'part-works' magazines that are sold as steps to building a complete work of reference on a subject. "Log on www.big-gov.gov.xx every month for the next five years and just watch us deliver better service to you as we achieve your vision.")

In short, advertising of online services will only work if the service being advertised fulfils a real need, and does it now. This view is supported by the finding that advertising of good

eGovernment services to select groups of people – for example the legal community in Bremen – has produced spectacularly good results in driving take-up of specialist services.

5.5   User Benefits

The final element that the e-Forum Working Group has identified is sharing benefits. Most eGovernment applications developed in most administrations will offer huge benefits to administrations, but currently do not offer the expected benefit to users. Is it therefore any surprise that they are used mainly by geeks? In the UK for example, electronic filing of tax returns results in a £10 tax reduction – hardly a big incentive anyway, given the unfriendliness of the system, but if your tax affairs are in any way complex you'll need to spend more than this on a package to produce your electronic return. No wonder, in spite of the claimed huge percentage increases, relatively few people file electronically in the UK.

Europe could perhaps learn from successful experiences in other continents. In Singapore one lottery entry is given for filing your tax return online, a second for filing early and yet another to get a friend to file online…and take-up is very high! In Victoria, Australia, they tried two different approaches to getting people to pay property taxes online – a 2% reduction and a lottery that resulted in one person in ten being refunded their full property taxes for the year after they had paid online. Unsurprisingly, payment by that route rapidly exceeded 80% of property owners.

Another type of benefit is time saving - American states deliver earlier confirmation of driving records for insurance purposes over the Internet. By enabling users to get insured to drive some three weeks earlier than by submitting the request and receiving the response by paper, American states can both charge significantly more, and be sure of high take-up. The money generated by this application is the main cause for state portals in the US to go cash positive within a couple of months of starting up.

Such incentives, if they truly reflect a sharing of benefits, are considered by the majority of the Group to be the most effective way of motivating take-up. However both the sharing of financial benefit and the lottery idea are considered by many inappropriate to the current European culture. "Just think what the papers would say" is a common response.

We are in no doubt that once citizens see real benefit from eGovernment in the form of cash and time saving, take-up will grow very rapidly – perhaps this is one public sector cultural issue that we should work to change. Certainly in the recent ICM/Hedra poll in the UK quoted earlier [5], citizens look to be very supportive of the idea, with 81% agreeing that they "would use the Internet to access public services more if it saved me money".

6. Results

From our work to date, ten key actions emerge that, if added to activities already in hand, will significantly increase take-up of eGovernment services in Europe:

6.1   Minimise the level of access security you need

Critically challenge the need for anything beyond a user name & password security level. Look at ways of reengineering the process to reduce the need for high security…and ask whether it really is necessary, for example, to put up a high security barrier to prevent someone else from paying my tax!

6.2   Be seen to be as trustworthy as possible by users

Look at ways you can introduce additional measures to prevent personal data from either being exposed to the public, or misused by other public sector bodies. Be seen to be whiter

than white – trust takes a long time to build but can be destroyed in an instant. Trust will be an increasingly valuable factor as face: face transactions become rarer.

6.3   Recognise that the hard part is organisational change

Involve everyone who will participate in delivery. Ensure that there are strong incentives for different organisations to work together. Map the changes in power and take appropriate action to compensate those who perceive they have lost out. Secure a champion at the highest organisational level possible, who has a personal incentive for the success of the programme.

6.4   Make it easy for users to find the services they want

Don't require users to have a degree in public sector management. Offer a portal that can quickly direct them to the service they need, that recognises which set of public sector bodies covers their geographic location and what their particular financial & social position is.

6.5   Research the most attractive content; prioritise delivery

Decide who your most important users will be then deliver content that they will want. Prioritise on users' needs, not yours. Avoid if possible discrimination by credit card.

6.6   Recognise the cultural constraints

Don't assume that what works in one country or region will automatically work elsewhere – check the cultural assumptions. Pick barriers to overcome carefully and plan your campaign with care.

6.7   Consider other channels

Look for other ways of reaching your target users. Consider partnership across the public sector and with the private sector. Be prepared to share savings.

6.8   Only advertise services that are fit for purpose

Wait until there really is something to shout about; don't give in to short-term political priorities. Remember that once people visit a site and find little of value, it takes an awful lot to get them back again.

6.9   Target advertising

If you have an application that will revolutionise the lives of a small segment of the community, target them tightly & specifically.

6.10   Share benefits with users

If you do none of the above, at least do this! The overwhelming evidence is that where public sector bodies have shared benefits with users, take-up has rocketed. This is the one cultural barrier that the Group believe should be challenged.

7. Business Benefits

Ultimately, the objective of growing take-up is to transform government, for the benefit of all citizens. The Group discussed the definition of 'take-up' at some length and concluded that the precise definition is unimportant in the context of the objective of this paper: growth in usage is beneficial however in virtually any way it is defined.

However, primarily to demonstrate the progression of benefits from increasing take-up, the following are the three stages of take-up we identified:

1. Electronic Replacement – where paper is replaced by electrons, saving time and some money but most important as a preparation for:
2. Entity-Centric Government – where electronic communications facilitate a transition to a different public sector organisation which recognises and organises itself around the needs of individuals and organisations (collectively referred to as 'entities'), itself a preparation for:
3. 'Ambient' Government – where information is only ever gathered once (and then in the least obtrusive way) and services are anticipated and delivered automatically, such that the image of the public sector is transformed from that of highly visible gatekeeper of hard-to-obtain services to a supportive organisation, always there when needed: an integral part of living that is rarely if ever consciously accessed.

The commitments made by governments such as those of Germany and the Netherlands to reduce costs (€400m pa and 25% of administration costs respectively, by 2006) [10] give just the smallest indication of the substantial savings possible with significant take-up of eGovernment services in Europe. These though will be dwarfed by the benefits to users of time and money saving and perhaps most of all of improved quality of life.

8. Conclusions

The e-Forum Working Group has identified a key set of guidelines for eGovernment implementers to increase take-up of their services rapidly. The issue that emerged as particularly neglected in Europe is also potentially the most significant, as well as being the most culturally unacceptable: sharing benefits with users.

The Group is now seeking funding to research this topic in greater detail and plans a major expansion of its activities in Autumn 2003. We will be using the wide coverage that e-Forum provides to ensure that the results of our work are disseminated across all levels of government in the EU.

We welcome additional members to our Group, to explore the wider aspects of take-up, to assist in disseminating these key messages and specifically to tackle further the issue of benefit sharing.

References

[1] Government Online – An International Perspective, Taylor Nelson Sofres, November 2002 http://www.tns-global.com

[2] The e-Forum Working Group consists of a mix of public, private and academic sector people, from across the EU. Those who have also made a significant contribution to this article include Doug Holmes (Author of "eGov"), Andre Wilkins (Ogilvy), Julian Hubbersgilt & Staveley Ferguson (London Borough of Hammersmith & Fulham), Prof. Francois Heinderyckx (Univ. Libre de Bruxelles), Prof. Herbert Kubicek (Univ of Bremen), Emilie Normann (Office of the e-Envoy), Luis Ballester (Instituto de Economica, Publica), John Shaddock (Yorkshire & Humberside Assembly) and Tim Anderson (Norfolk CC).

[3] www.eu-forum.org

[4] Harvard Business Review originally published 1968, republished January 2003 http://harvardbusinessonline.com

[5] ICM/Hedra poll December 2002 www.icmresearch.co.uk

[6] Security Counts, a report by eGovernment Bulletin, April 2003, www.headstar.com

[7] UK Public Accounts Committee August 2002 http://www.parliament.uk/commons/ selcom/pachome.htm

[8] www.UKVillages.co.uk

[9] See for example Everybodyonline at www.citizensonline.org.uk

[10] Andreas Reisen & Matt Poelmans in separate presentations at the Kable eGovernment Conference, Brussels, 30-31 October 2002.