

**Learning from "Big Brother"**  
*– public sector e-commerce as a role model for Swedish industry*

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(*Appearing in alphabetical order*)

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**Abstract**

Public sector e-commerce has played an important role worldwide in influencing not only national, but also regional and international standards regarding e-commerce worldwide. The growth of public sector e-commerce awareness has led to the creation of policies, guidelines and legislation regarding such issues as electronic signatures and consumer rights.

In Sweden, we find representatives from both the public and the private sphere among the forerunners in e-commerce, but it is important to note that public sector e-commerce in many ways has served as a role model for industry practice. In March 2000, the Swedish Government launched a new IT Bill for the creation of "An Information Society For All" with the aim of boosting the confidence in information technology, enhancing competencies in the use of information technology and securing accessibility to the services of the Information Society, including e-commerce.

The "24x7 Government Services Project" coordinated by Statskontoret (*The Swedish Agency for Public Management*) aims to improve the accessibility to public sector services for all Swedish citizens by the utilization of information and communication technologies. The same Swedish agency has also been the coordinator of major IT procurement projects. The public sector in Sweden has also been involved in several projects regarding the spread of information and knowledge about electronic commerce to consumers and smaller businesses.

This conceptual paper will challenge the general notion that the public sector in all instances must learn from forerunners within the private sector, as well as explore in what aspects the public sector may be considered an e-commerce role model for industry, specifically in the context of Sweden.

Keywords: e-government, government services, Statskontoret, The Swedish Agency for Public Management, "Information Society for All", "24x7 Government Services Project", Sweden.

#### Professional Biographies:

Helena Lindskog is a Research Associate and senior lecturer at the Department of Management and Economics at the Institute of Technology, Linköpings universitet in Sweden. She has 25 years of experience in the field of information technology and telecom within both the private and public sector concerning issues related to general advising, strategy, leadership, training and procurement. Helena is a popular speaker and has during the past year held presentations in Sweden, Austria, Italy, France, USA, Poland and Russia. Her debate articles related to information technology and telecom developments are often found in various Swedish trade magazines and newspapers. She holds a Master of Science degree in Engineering from the Royal Institute of Technology in Stockholm and a Bachelor of Arts in Languages, History and Comparative Religion.

Helena Wennberg is a Ph.D. Candidate and junior lecturer at the Department of Management and Economics at the Institute of Technology, Linköpings universitet in Sweden. Her research focuses on the current trends regarding procurement practices in the Swedish public sector, including a specific focus regarding ongoing e-procurement initiatives in various governmental agencies and municipalities. During the past year she has presented papers at several of international electronic commerce conferences in Europe and North America. She holds a Master's degree in Business Administration from the School of Economics and Management at Lund University, as well as a Master's degree in Intercultural Relations from Lesley University.

## **Introduction**

The development of information and communication technologies (ICT) and the increasing usage of the Internet are rapidly changing the way organizations and individuals relate to one another. During the past decade we have seen a rapid growth in the dissemination and integration of information and communication technologies into the almost every aspect of human society. Even before the rapid uptake of the Internet as a tool for rapidly disseminating information electronically worldwide, we had seen rapid growth in terms of PC penetration as well as experienced rather well developed EDI (electronic data interchange) solutions within organizations of varying size.

For the purpose of this paper we have chosen the following key definitions:

- **electronic commerce:** *any utilization of information and communication technologies for the purpose of improving the administrative performance within public or private organizations, including the delivery of electronic services*
- **electronic government or eGovernment:** *a phenomenon enabling multiple forms of electronic interaction in the public sector. The delivery of government information and services, and government administration and operations are enabled by the use of Internet technology.*
- **e-Procurement:** *the use of Web-based technology to support to key procurement processes, including requisitioning, sourcing, contracting, ordering, and payment.*

ICT facilitates the accomplishment of many urgent tasks in a variety of sectors and context. The public sector with its many service offerings and large amount of daily transactions of various kinds has therefore in many countries not only actively created policies and legislation supporting a good nationwide IT climate, but also tried to find ways in which to utilize the power of ICT in order to streamline internal processes as well as service delivery channels.

One of the ways governments have achieved significant results is through the step-by-step or once-off implementations of e-procurement systems of various kinds. Another example is the establishments of specific governmental portals or gateways through which citizens can access information and services in a customer-centric manner, meaning that the structure follows the service needs of the citizens rather than traditional divisions between governmental agencies.

In many other research papers and reports it is always stressed that it is the governmental sector which needs to learn from the success stories from the private sector. In this respect, we would argue that private actors have a lot to learn from current initiatives in the public sector. Our aim is to show that a two-way dialogue between actors in the private and public sector where best practices can be shared is an essential part of bringing about an information society for all.

### **Bridging the public-private divide**

The private sector is often highlighted as the forerunners when it comes to the adoption of new technologies and new methods of work. However, the public sector has an important role to play in supporting the speedy transition to electronic commerce, both on account of its size and because it can serve as a pioneer and a good example to others. There are significant similarities between the ICT within the private and public sector. In both cases, the end goal is to harness the power of ICT in order to increase the efficiency of internal processes

and through new service delivery channels (primarily the Internet) provide customers/citizens 24/7 access to the services they need.

A transition to electronic commerce within the public sector will lead the market to expand and make administration more efficient. The increased interest in e-Government is a result of growing demands for more efficient service delivery by the public sector both from within, as well as from the citizens and businesses that it serves. Government agencies cannot differ from private companies when it comes to the service level offered. The public sector is constantly benchmarked against similar services offered by private organizations (for example banking services). This is the same dynamic that during the last few years forced many traditional mortar-and-bricks companies to match the 24/7 service level being promoted by emerging dot.com enterprises.

There are of course also differences between the context of public and private sector organizations that ought to be addressed. Within the public sector, there is barely any competition (at least on a national level) and there exists extensive learning networks where best practices are shared or jointly established. Generally in the public sector, the threat of bad-will on behalf of the citizens and businesses it serves is a bigger threat than the potentially negative economic consequences of an ICT initiative that does not work out. However, public sector organizations should of course, just like any private sector organization, carefully map its needs and think ahead when launching ICT projects and initiatives. The public sector also has the power to initiate new policy in relevant areas. On the national level, the public sector is usually also the biggest and therefore also one of the most influential buying entities.

Within the private sector, ICT is predominately used as a means to gain market share and create profit through more efficient delivery of products and services. Competition is fierce and therefore each ICT initiative is often carefully scrutinized in terms of its return on investment, short-term and long-term benefits. Due to its policy-making power, the public sector

may force private sector organizations adopt certain standards or methods of working by the power of their monopoly and through regulatory frameworks to use specific systems or applications for customs declarations, personal tax returns etc.

As shown in the illustrative figure below, it is really only the outer ring that differs between private and public sector actors. It can therefore be argued that there exist more similarities than differences between the private and public sector, which in turn means that organizations in the private sector should be able to learn from the experiences of the public sector. Due to the many interdependencies between the private and public sector, the development of efficient businesses require a well-functioning and efficient public sector. During recent years we have begun to see interesting examples of public private partnerships and there are still many possibilities to reap further benefits from increasing such collaboration efforts.

Traditionally ICT has been seen only as a cost and quite often sub optimized. ICT can also be used as a tool for reducing the overall cost of business processes, as well as a means for development of better relationships between the customer and the own organizations. Main difference between the private and public sectors is the purpose (profit/non-profit) and financing (shareholders/taxpayers) of main activities.

### **take in Figure I**

#### **eEurope 2002 – Creating an information society in Europe**

The launch of the eEurope initiative was a result of the growing importance that the European Union is attributing the uptake of information and communication technologies within its Member States. However, it is important to note that creating an information society not only involves streamlining information and transaction flows between governmental agencies (G2G) and putting in place the necessary infrastructure for providing online public services to citizens

(G2C), but that it also requires the establishment of a framework for providing online services to businesses (G2B) and supporting the broad dissemination of electronic commerce in both B2B and B2C environments.

It is in this broader context of policy creation we should discuss the e-Government initiatives currently being launched in various countries. The public sector is often in a better position than private industry regarding the financial possibilities of launching a long-term initiative, such as the adoption of electronic commerce practices. In many instances it also the public sector that drives the policies and regulations providing the framework for electronic commerce activities in B2B and B2C contexts, wherefore it is crucial for private industry to establish an ongoing exchange with relevant policy makers in the public sector.

The initial information society idea in Europe has developed considerably further during recent years. Today, nearly one third of EU homes are connected to the Internet and nearly two thirds of Europeans now have a mobile phone. Almost half of workers use computers in their jobs. eEurope's objectives are to accelerate the development of the information society in Europe and to ensure its potential is available to everybody – all Member States, all regions, all citizens (Commission of the European Communities, 2001). The work that has been carried out on the European level over the past years, including the launch of the eEurope initiative and the IST (Information Society Technologies) research programme, which has had a significant impact on the uptake of existing and new technologies for widespread utilization within organizations in all Member States.

On 30 November 2000, the Internal Market Council agreed to a set of indicators for benchmarking purposes regarding eEurope. One of these indicators is the level of Internet penetration at home. Between March and October 2000 penetration rates at home increased from an average of 18 % to 28 %. In addition many people in Europe access the Internet in non-domestic environments, particularly at work, at school or at university. When these locations are

included, the total of Internet users in the EU comprises of about 40 % of its entire population (Commission of the European Communities, 2001).

However, to realize the potential of ICT there is a need for structural reform. Modernization of public administration is no longer primarily a matter of introducing new technologies; working practices and rules must be changed to realize the benefits of technology. The public sector must lead, not trail, in the take-up of new technologies. It must both establish the legal framework for the private sector to flourish and exploit technology to bring more efficient delivery of public service. The use of online government services is developing in the EU. About 25 % of Internet users have accessed government websites, but most interactions are still passive, i.e. information search and downloading. Only 10 % of Internet users have used public websites to submit forms. The level of interactivity varies by Members State with the Netherlands, Finland, Sweden and Denmark all having levels of more than twice the average (Commission of the European Communities, 2001).

As only 10 % of Internet users within the EU currently interact with their governments online, it is clear that the full potential of existing digital technologies for efficiency gains has not yet been exploited. However, as we've highlighted earlier it is not just a question of learning how to use new technologies, it is a question of adapting old habits and practices. e-Government is a priority area that needs to be further developed during coming years. In practice this means that EU institutions and national public administrations should make every effort to use information technology to develop efficient services for European citizens and business.

In sum, public administration should (Commission of the European Communities, 2001):

- Develop internet-based services to improve access of citizens and businesses to public information and services,



- Use the Internet to improve the transparency of the public administration and to involve citizens and business in decision making in an interactive fashion. Public sector information resources should be made more easily available, both for citizens and for commercial use.
- Ensure that digital technologies are fully exploited within administrations, including the use of open source software and electronic signatures.
- Establish electronic marketplaces for e-procurement, building on the new Community framework for public procurement.

For e-Government the following two indicators will be the basis for benchmarking between the EU Member States:

- Percentage of basic public services available online,
- Use of online public services by the public.

Within the European countries there has been significant growth regarding the percentage of basic public services that are available online and the use of online public services by the citizens is steadily increasing. We will in the following section describe the current status of e-Government implementation in Sweden.

### **e-Government in Sweden – Creating An Information Society for All**

For the second consecutive year, Sweden has been ranked as the leading IT nation by the International Data Corporation, IDC. Sweden's advanced position in IT and Internet maturity is largely due to its long history of being in the forefront in national infrastructure, education and IT investments. The early deregulation of Sweden's telecommunications market and the "Home PC program" are other important factors. The extension of broadband capacity to all parts of the country will further strengthen the nation's infrastructure (IT Sweden, 2001).

## Take in Table I

The Swedish Government takes the view that the information society must extend nationwide and in its Government Bill 1999/2000:86 the initiative “An Information Society for All” was launched. The aim is for all citizens to be given the opportunity to benefit from IT – an information society for all. The IT policy includes a section related to utilize ICT in order to bring about an even more efficient public administration.

The main focus areas within the Swedish public administration will be:

- Letting public administration set a good example in IT usage.
- Helping to ensure that electronic communication between government agencies, private individuals and businesses may be conducted safely and securely.

Ongoing eGovernment initiatives in Sweden include the Government eLink (GeL), an infrastructure for information exchange primarily between authorities in the public sector, but also between Swedish citizens and the public sector, and Swedish enterprises and the public sector and the 24/7 Agency. The latter initiative will be further explored in the following section.

### **The 24/7 Agency – improving accessibility to government in Sweden**

Within the public sector there has during recent years been significant interest for finding ways of enabling governmental authorities to serve the public better, more efficiently and more cost-effectively by utilizing the power of existing information and communication technologies. Within Sweden, the idea of the 24-hour, seven-days-a-week (24/7) government agency has emerged as the leading concept in efforts to enhance government accessibility. These 24-hour governmental agencies are intended to be able to supply its stakeholders with

information and electronic self-service anytime and anywhere. The 24/7 Agency means good services for the public and business irrespective of time of day and geographical location. The 24/7 Agency must be responsive, alert, listen constantly to members of the public and collaborate with other agencies and make use of the entire scope offered by information and communication technologies.

The scope for providing interactive services is affected by available technology and infrastructure and the combination of service and technological levels provided by an agency in its service range determines which of the four stages of development the agency has reached.

These stages are defined as follows (Statskontoret, 2000):

- Stage 1** Website containing “packaged” information about the agency and its services
- Stage 2** Website containing “interactive” information about the agency and its services
- Stage 3** Website and communicative functions that allow the visitor to submit and retrieve personal information
- Stage 4** Website and network functions for joined-up services involving several agencies and institutions.

Fragmentarily and partially, 24/7 services are already provided by several Swedish agencies. The National Labour Market Board (AMS) has a massive volume of inquiries 24 hours a day in its web-based labour exchange, the Job Data Bank ([platsbanken.ams.se](http://platsbanken.ams.se)). The National Tax Board (RSV) finds, on the basis of an independent market survey, that more than a third of the country’s Internet users have visited their website ([www.rsv.se](http://www.rsv.se)). According to Statskontoret (2001b), some of the most visited Swedish sites are those of some of the major central Government Agencies such as The Tax Administration (May 1998: 103 000 visitors), The National Labour Market Board including the Job Data Bank (May 1998: 650 000 visitors) and

the National Student Board (August 1998: 42 000 visitors; September 2000: 109 000 visitors – a fivefold increase!).

### **Take in Table II**

The characteristics of Swedes using the Internet for public administration (in terms of age and gender) are illustrated in the table below.

### **Take in Table III**

As shown in the table above, men utilize online public services to a higher extent than women in almost all age groups. It is clear that citizens between 20 and 45 currently are the most frequent users. This indicates that there is a need to ensure that other age groups are not left behind, specifically citizens between 45 and 64, as a significant proportion of the Swedish population can be found within this age group.

According to a survey conducted, most Internet-based contacts between citizens and the public administration are roughly on a monthly basis, more seldom on a weekly basis and only rarely daily. However, it is very possible that contact frequency could increase if and when the citizens feel that they can indeed be served equally well or better via online service delivery as they can be in face-to-face settings.

### **Take in Figure II**

Thus far, the Swedes using public services online are predominantly found in urban areas in Sweden. In order to say that all citizens indeed have equal access to online services there seems to be a need for specific actions and initiatives in small municipalities as well as in rural areas, in order to increase the overall level of utilization of existing public services over the Internet in Sweden.

### **Take in Table IV**

Due to the broad penetration of Internet access and Internet utilization by the Swedish population, there is an obvious potential for increased use of public services in digital form. In September 2000, roughly 40 percent of Internet users in Sweden did not access the available online public services. The expansion of e-Government in Sweden can thus be said to be a matter of attracting new users to existing online public services, encouraging more intense use among those already active, as well as the development of new online public services that may attract new groups of citizens. Without a functioning infrastructure in terms of technology and organizational structure, the Swedish government will not be able to reach its goal to create an information society for all. Increasing the amount of public services that are available online as well as ensuring that all citizen groups have equal access to these services is fundamental to e-democracy.

### **Trends in public procurement**

One area where new technical developments have made its mark is procurement. In the business-to-business context there has been large interest in exploring the possibilities of e-procurement, i.e. linking suppliers and other business partners to a company's electronic supply chain. This can bring big improvements in demand forecasting, lead times, channel inventory, and time-to-market for new products (PriceWaterhouseCoopers, 2000).

Large companies spend more than 5 to 10 percent of revenue on office equipment, supplies, software, computers, peripherals, and the other so-called non-production goods. Buyers and sellers alike recognize that by creating a more efficient method of exchange, they can realize business benefits such as additional revenue and lower costs (Kalakota and Robinson, 1999). In the business-to-business context it is important to note that the economic dimension of

organizational purchasing is intertwined with the relationship established with the supplier. This implies that when various offers from suppliers are fairly uniform and similar, the purchase agent can opt for the vendor with which the firm has established the strongest relationship.

According to Deise et al. (2000), procurement has three business objectives: *improving supplier performance, reducing cycle time and transaction costs for indirect procurement, and reducing total acquisition costs for purchased materials and services*. Four main activities are associated with procurement of materials and services: *developing sourcing strategies, selecting suppliers, ordering materials and services, and appraising and developing suppliers*.(Deise et. al, 2000)

The introduction of Internet technologies into the purchasing process, i.e. eProcurement, is redefining the rules and relationships among requesters, the purchasing organization, and suppliers. In view of the potential financial benefits of a more effective overall procurement strategy enabled by Internet technologies, it is therefore not surprising that companies worldwide currently are allotting substantial amounts of resources to e-procurement initiatives, as a way to remain competitive in the global marketplace.

The procurement and purchasing behavior of Swedish organizations in both the public and private sector is changing. This will in turn affect the nature of existing buyer-supplier relationships. The underlying change factors include developments in the external environment such as the rapid technological development in the area of information and communication technologies, increased competition in the marketplace and the harmonization of laws and regulations that has occurred due to the Swedish membership in the European Union. Many types of organizations are today implementing increasingly automated administration processes in order to decrease overall administrative costs. One area of interest for such automation has been the procurement processes. During recent years there has been several initiatives aimed at implementing electronic procurement practices. By moving from traditional procurement to

electronic procurement, organizations are hoping to increase the efficiency of its entire procurement process.

The public procurement market within the European Union alone is estimated to roughly 760 billion EUR, equal to more than 10 percent of the combined GNP of the EU countries. The annual turnover related to public procurement in Sweden is estimated to be about 44 billion EUR. The public sector in Sweden is thus a large-scale buyer of almost all types of goods and services and its suppliers are often private sector organizations. The general agreements negotiated by Statskontoret (the Swedish Agency for Public Management) are by other private companies regarded as somewhat of a stamp of approval, assuring that the suppliers selected fulfill at least some general requirements, and therefore utilized for benchmarking purposes concerning criteria such as quality and price.

The goal for the European Union is that the Internet should support 25 percent of all public procurement activities by 2003. An example of initiatives supporting this EU vision is the websites launched by Denmark ([www.elektroniskhandel.dk](http://www.elektroniskhandel.dk)) and Austria ([www.portal-austria.at](http://www.portal-austria.at)) for the purpose of the electronic public procurement of services. These websites function as virtual marketplaces, where companies can bid for specific tenders. In Sweden there has been some progression towards electronic procurement also within the public sector. For example, a web-based procurement tool developed by the Swedish company ProTender was last year piloted by Landskrona kommun and Huddinge Sjukhus.

### **What the future holds**

So far, most governments have responded to the eEconomy in an agency centered way, with the result of a proliferation of stand-alone agency websites which offer little improvement in terms of the quality of services offered to citizens. It is important to understand

that governments face complex social, regulatory and legal issues when changing their service delivery models.

According to Jupp (2001) eGovernment is really about bringing benefits to both citizens and governments, through creating a gateway to government that is more open, making communication between individuals and government far easier. The current challenge is to create a single service delivery mechanism – providing a framework by which several different agencies and service providers can vastly improve customer service levels, by creating the virtual agency that delivers several different services via a portal. The virtual agency delivers services clustered by needs, not by agency.

Although the private sector already is familiar with the specific demands of providing products and services in a 24/7 world, there are still areas where they could benefit from closely monitoring the progress regarding eGovernment. For instance, online service delivery as well as web-based dialogue with customers and other stakeholders is still an area where further developments are needed also within the private sector. In addition, the emergence of generally accepted, customer-centric models of information and service delivery in the public sector this will naturally also affect how these same individuals will want to be served by private sector organizations. In the future, clustered information and service delivery might be a customer demand also against the private sector. The private sector can learn a great deal from the work carried out within the public sector regarding initiatives based on close, interorganizational collaboration. One of the main differences between public and private spheres is the vision-driven action manifested in initiatives such as the 24/7 Public Agency in Sweden. Although there are many examples of the contrary, many private sector organizations are more prone to ad-hoc decision-making processes not clearly linked to a broader strategic vision.



It is clear that ICT can bring about process transformation and help increase efficiency. One such example is the transformation of traditional procurement practices to e-procurement. Not only could a wider adoption of e-procurement help reduce cost for goods and services purchased, it will also help streamline the internal processes related to procurement within both the public and private sector.

Our research thus far indicates that the public sector may in some aspects be viewed as a role model whether it relates to government-to-citizen transactions (G2C) in comparison with business-to-customer (B2C) and government-to-business (G2B) as well as government-to-government (G2G) in comparison with business-to-business (B2B). There is a need for researchers and practitioners alike to break free from the view that the public sector need always be the student and never the professor in its relationship with the private sector. Exciting times are ahead for the public sector as wave after wave of new e-Government initiatives are being launched. As researchers, we look forward to following the new developments in this field during coming years.

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Statskontoret (2000), The 24/7 Agency: Criteria for 24/7 Agencies in the Networked Public Administration, Statskontoret 2000:41, Stockholm, Sweden.

## **Additional resources**

### **Consulting reports:**

accenture (2001) eGovernment: Connecting the dots?

accenture (2001) eGovernment Leadership: Rhetoric vs. Reality – Closing the Gap.

Deloitte Research (2000) At the Dawn of e-Government: The Citizen as Customer, A global public sector study by Deloitte Consulting and Deloitte & Touche.

Deloitte Research (2000) Through the Portal: Enterprise Transformation of e-Government, An e-view of Deloitte Consulting and Deloitte & Touche.

**Select eGovernment Sites Worldwide:**

**Information Society/eEurope, European Union**

[http://europa.eu.int/information\\_society/eeurope/index\\_en.htm](http://europa.eu.int/information_society/eeurope/index_en.htm)

**The Commonwealth Centre for Electronic Governance**

<http://www.electronicgov.net/>

**OECD work on eGovernment**

<http://www1.oecd.org/puma/Egov/links.htm>

**Austria**

<http://www.help.gv.at> (Austrian Government's portal)

**Australia**

<http://www.dcita.gov.au/> (Australian Department of Communications, Information Technology and the Arts)

<http://www.ogo.gov.au/> (NOIE – the National Office for the Internet Economy)

<http://www.go.vic.gov.au/> (Government Online, Victoria)

**Canada**

<http://www.canada.gc.ca> (Nationwide, bilingual portal with links to major agencies)

**Denmark**

<http://www.danmark.dk> (Service pages for citizens)

<http://www.inberetning.dk> (Service pages for business)

**Finland**

<http://www.vn.fi/vm/kehittaminen/tietohallinto/portaali.htm> (An extensive portal for public services)

<http://www.opas.vn.fi> (Information presented in "life stages")

**Hong Kong**

<http://www.esd.gov.hk/eng/default.asp> (Electronic Services offered by the Hong Kong Government)

**Luxembourg**

<http://www.luxembourg.lu> (Luxembourg eGovernment website)

**Singapore**

<http://www.gov.sg> (Government portal)

**Sweden**

<http://www.itsweden.com/> (General information regarding ICT issues in Sweden)

<http://www.statskontoret.se> (Homepage for Statskontoret)

<http://www.statens-e-forum.nu/> (Joint Forum for Swedish Government Agencies regarding eGovernment)

<http://www.statskontoret.se/gel/index.htm> (Government eLink for efficiency of information exchange)

**Switzerland**

<http://e-gov.admin.ch> ('Cyberadministration' project site)

**United Kingdom**

<http://www.ukonline.gov.uk/online/ukonline/home> (Public access to government online info and services)

<http://www.e-envoy.gov.uk/> (Office of the e-Envoy)

**United States**

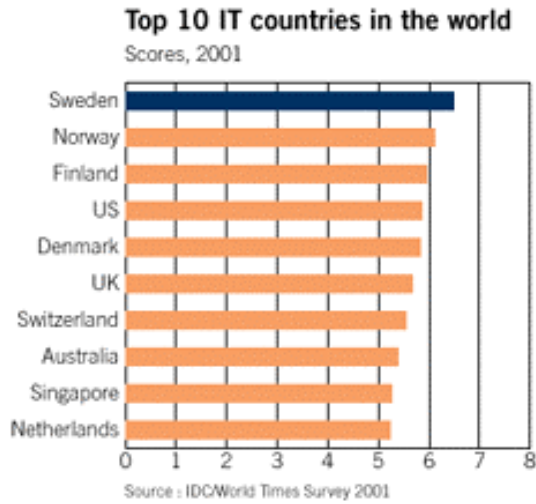
<http://www.firstgov.gov> (The official United States Government Webpages)

**Examples of state level portals:**

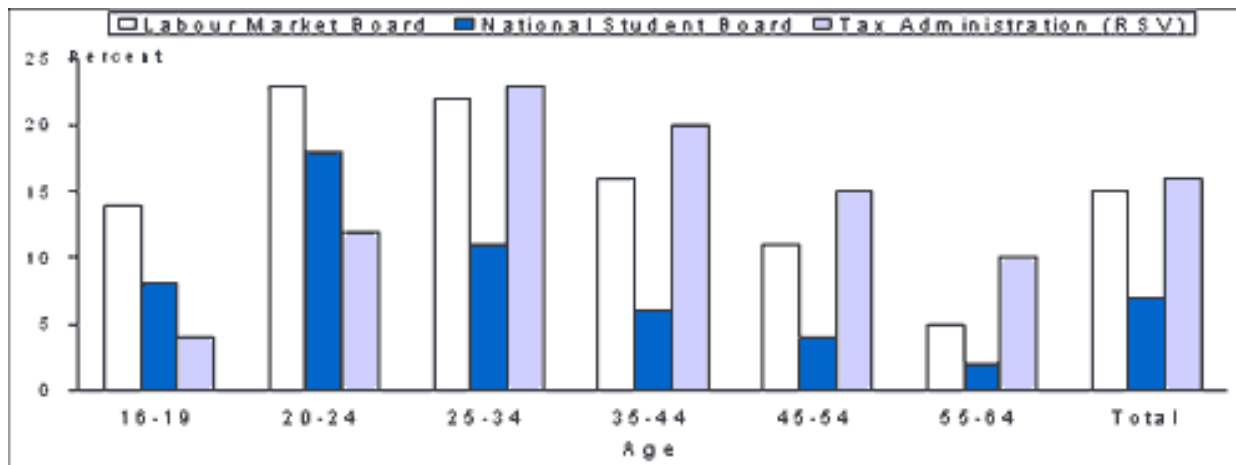
**California:** California Department of General Services – CAL-BUY ([www.calbuy.ca.gov](http://www.calbuy.ca.gov))

**North Carolina:** NC @ Your Service (<http://www.ncgov.com>)

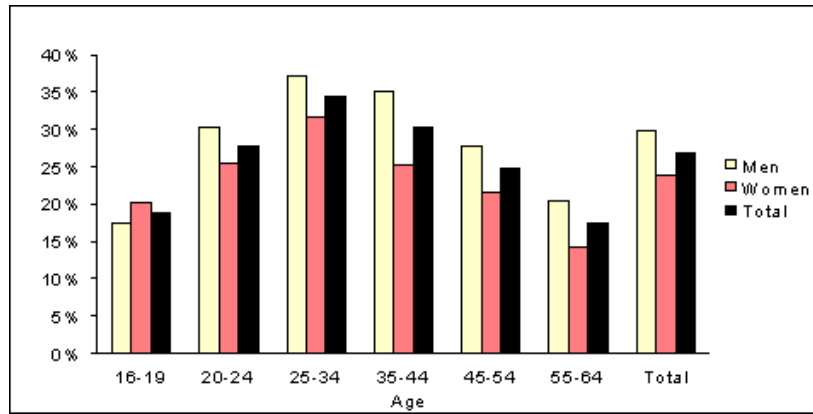
**Tables**



**Table I Top 10 IT countries in the World**



**Table II Users of the Labour Market Board, National Student Board and Tax Administration websites in percent of population.**



**Table III Swedes' Internet usage for public administration according to age and gender**

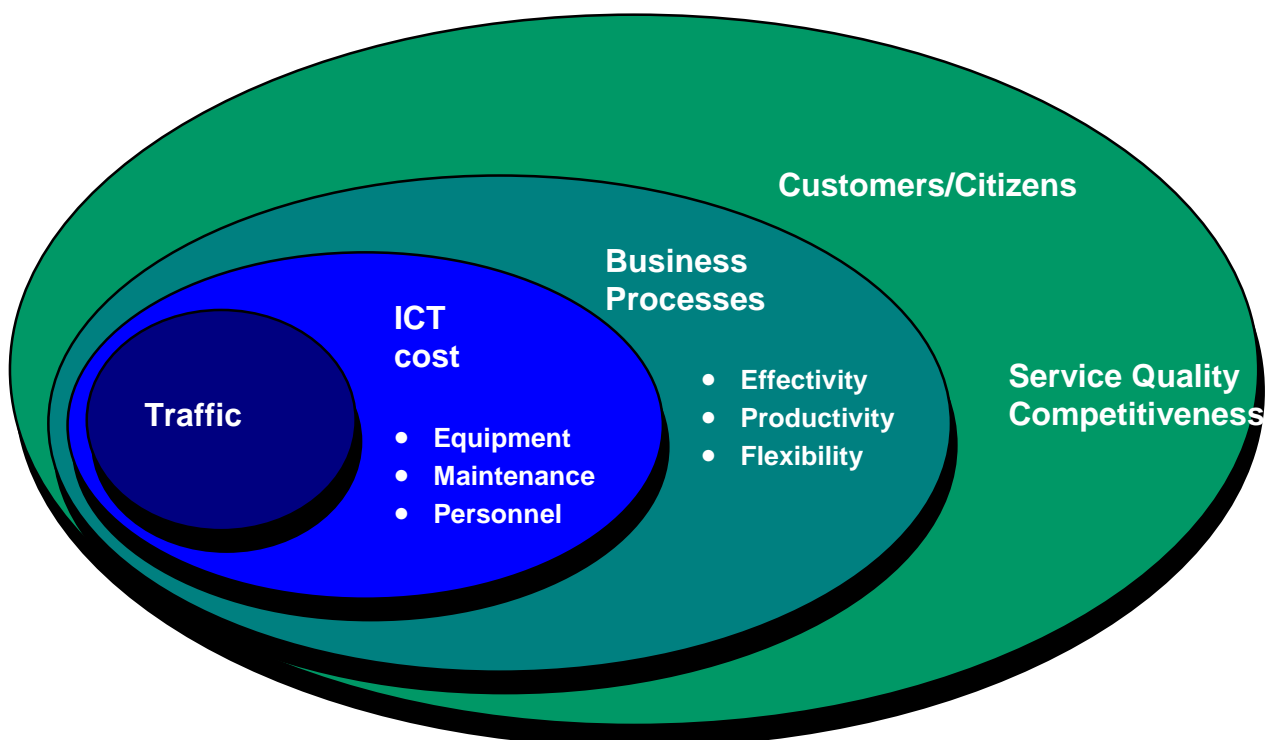
Region	Men (%)	Women (%)	Total (%)
Stockholm area	41	33	37
Gothenburg area	32	26	29
Malmö area	36	26	32
Cities over 90 000 inhabitants	28	21	24
Cities between 27 000 and 90 000 inhabitants	21	18	20
Municipalities between 27 000 and 90 000 inhabitants	26	24	25
Municipalities with less than 27 000 inhabitants	24	17	21
Total	30	24	27

**Table IV The geographical spread of utilization of Internet-based public services**

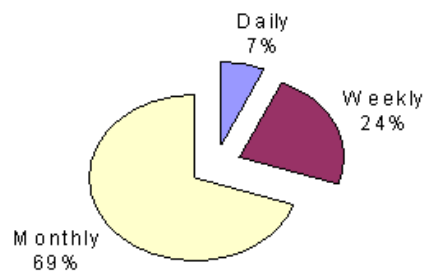
**Figures**

**Figure I Shift in Focus – From Cost to Business Development**

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**Contact frequency via internet with public administration**



**Figure II Contact Frequency via Internet with public administration**