

A Paradigm Shift for Government in the Information Age

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Information-based society will be driving governments to become e-governments. E-government is transforming government to be more citizen-centered. It is not just about service delivery over the internet. It is not just about digital access to government information or electronic licensing and payments. While all of these are important and need to be done, they are a small part of what e-government is all about. The far greater challenge in the coming years will be a revolution in governance itself, which is a dramatic shift in the way political and social power is organized and used.

E-government has multiple dimensions. Each dimension demands leadership, strategy, cross-coordination, and know-how, all combined with a technology strategy that makes vision a reality. Each initiative should be designed to leverage others: e-government, infrastructure, attracting educated workers and improving the quality of life. A coordinated effort in this regard will create strategic advantage for a nation. Otherwise, good intentions fall victim to fragmentation and sub-optimization of opportunities.

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The New Economy

The internet has caused a major shift in many industries around the world. Advanced technologies and new company structures have also changed economic and social systems significantly. These changes not only increase efficiency for industry leaders, they also become a very strong weapon for the whole economy. In other words, the new economy, “e-economy”¹, is not about new technology, rather it is a transformation that alters market structures, the way companies do business, government policies and human experiences as a whole. If we expect the transformation to be completed quickly and its effects on stock market performance and efficiency in the economy to all be positive, we would be grossly underestimating the internet and its impact. It is inevitable that any structural conversion will result in the unbundling of the corporation into its component businesses and then in a rebundling process that will create a new organization².

The modular architecture of the internet proposes a total restructuring of the value chain design in every industry. Before the internet, the value chain started with the supplier, followed by the manufacturer and ended up with the customer. However, with the internet this value chain develops into a value web where all the stakeholders are in constant interaction with each other. Everything that travels on the internet becomes information. For example, if we would like to buy a book on the web, the information about the book and the information about how it is purchased become a product to be traded. Therefore, both the modularity of the internet and its characteristic of making information the primary product creates a variety of new roles for companies.

We should first of all start by saying that the new economy is not new at all. Contrary to what is commonly believed, the new economy did not invent the internet. Although the terminology has been in use for the past five to six years, the roots of the structural changes in various industries date back to the 1970s. The major driving force,

¹ Cohen, S., B. DeLong and Zysman, J. (2000) ‘Tools for Thought: What is new and important about the “e-economy”’. BRIE Working Paper. No.138.

² Hagel III, J., and M. Singer (1999) ‘What Business Are You Really In?: Unbundling the Corporation’, Harvard Business Review, March-April 1999.

however, has been developments in communication and information technologies. The internet would have remained an academic research tool had the cost of telecommunications and information technologies not gone down. The significance of today's shift is the internet's pervasiveness and its penetration of almost every sector of the global economy. The major differentiator of this new economy is that it takes information as its raw material. Once information is applied to products, companies and markets, it results in many drastic changes to the traditional business world.

Technological change, on the other hand, is a big controversy. In time technology loses its revolutionary nature and self-destructs. Once the new technology is used by everyone, it no longer possesses a strategic advantage, rather it becomes just a tool that carries a given company to its next destination.

The business world's awareness of the opportunities and competitive advantages provided by telecommunications and information technologies predates the internet. In recent years popular management methods (Total Quality Management, just-in-time inventory management, market segmentation, etc.) have emerged to make better use of technology. However, most of these initiatives have failed to meet expectations. The major reason for the failure was that executives in most companies were unable to change their existing mentality.

The road that any executive in the new economy takes starts with technology and goes on with trust. In an environment where information is the source of competition, it is necessary to be able to share this information with trust within the company, with the customers and from time to time even with the competitors. The job of an executive is to create a trusted environment where employees can learn from each other, share experiences and obtain new knowledge using technology. A critical principle of the new economy is the more you share and communicate the better your chances of being successful. Speech, communication and sharing, in fact, are the oldest values of human kind. Therefore, the new economy is rising on human kind's oldest values and is bringing those forgotten values on to our agenda. Technology and communication is open to everyone, and everyone can use the same technology. However, it will be the human brain and creative ideas that make the difference. The new economy is not a magic stick that turns a company it touches into a successful business. The magic always lies in the employees that work in the new economy.

All these factors are extremely important for the operations of a government. With the markets and the whole world changing so rapidly, it is essential that a country that aspires to integrate itself with the world understand the new economy and its main characteristics of information-sharing, transparency and participation as opposed to administration. All governments around the world have been slow to accept the internet and the opportunities it brings to them. The main reason for this is that government is a monopoly in its relations with the citizens and performance evaluation of various departments within the government is not based on customer satisfaction. Governments, on the other hand, cannot choose their citizens either and they have to serve every citizen in the country equally and identically.

In the last five years, countries like the U.S, UK and Singapore have started serious e-government initiatives. These initiatives first started as government efficiency and cost cutting projects to use the internet for various citizen services and then they were extended to include all government entities as the new e-government policy. Citizens in these countries started to pay their taxes, traffic fines, and renewal of licenses over the internet on a 7 day 24 hour basis. Each citizen can access his health, insurance, tax, etc. information on-line in one-click whenever and wherever they would like.

In order to develop and catch up with the rest of the world, it is imperative that government continuously invests in basic sciences, engineering and technology. These investments made by the state for generations play a very important role in the success of companies as well. Developing advanced technologies alone would not be sufficient if there were not any competent people to use them. Competency gains even more importance in the new economy. The state does not have the luxury of choosing one or the other. In other words it is the state's duty to support the developments in new technologies as well as to cultivate competent people.

New Policies

The new economy pushes government policies to evolve since the radical changes it creates in the market place seek to replace existing laws and policies. Information technology rapidly penetrates every segment of the society in the form of TV, cell

phones and the internet. Therefore, the new economy does not just make a difference in one industry, but it shifts the way the market economy works. Developed countries are rebuilding both their private and public sectors around the internet and internet technologies. With these in mind, governments also are reviewing policies, such as access conditions to all telecommunication services, taxation, consumer rights, security, intellectual and privacy rights. It is not possible to simply adopt the old rules to the new environment. A totally new mind set is absolutely critical.

One other important duty of the state is to promote and to preserve a competitive environment in the market place. It is essential to have free market dynamics based on learning and experience between the creators of technology and the users of technology in order to be able to continue to advance technologically. Many industries, from airlines to banking, have come up with new products and applications because of the liberalization of telecommunications. Governments must understand the changing nature of the world and make a paradigm shift - from a control freak attitude to a more participatory attitude - in order to become one of the major players in the new economy and also to ensure auto control.

The basis of the new economy is all about structural change: doing new things, or doing old ones in new ways. In both cases, it is crucial that a new organizational structure and a new skill set be developed. The overall performance of the economy is tied to its flexible architecture:

- State enables free competition in the market
- State enables and encourages new companies to be established fast
- State enables and encourages the establishment of venture capital
- State passes new regulations on company ownership structures allowing stock option plans
- State enables success to diffuse throughout society.

Flexibility and prevalence can only be possible through education and employment opportunities. Education brings together productivity, flexibility and prevalence. Therefore, the whole education system from primary school to universities should be

scrutinized and rejuvenated. This means that math, history and geography should be taught with internet and internet technologies and kids should learn through research and experimentation. If the government would like to be one of the major world players, then it should make radical changes in the overall education system: the content as well as the method.

The second critical point is employment opportunities. Flexibility also brings new employment. If citizens believed that they would have no difficulty finding a new job, they would be a major supporter of change. Development and improvement are only possible when we are open to change. Of course everyone can find a job and get social security rights if the state employs the right macro-economic policies. Whenever a country experiences a major transformation, the employment vacuum is not filled by the ones who lost their jobs. That is why education and long-term investment in science, technology and engineering are important to be able to create new skill sets fast and easy.

E-government

Information-based society will be driving governments to become e-governments. E-government is transforming government to be more citizen-centered. It is not just about service delivery over the internet. It is not just about digital access to government information or electronic licensing and payments. While all of these are important and need to be done, they are a small part of what e-government is all about. The far greater challenge in the coming years will be a revolution in governance itself, which is a dramatic shift in the way political and social power is organized and used³.

As mentioned earlier, the road to e-government starts with an information-based society and is followed by establishing the infrastructure policies necessary for e-government. The attributes of an information-based society are human capital, the level of innovation, the standard of living, productivity, health, investment capital, trade, safety and security. Once society has these attributes the state should then

³ Harris, B. (2000) 'E-Government: Beyond Service Delivery'. in <http://egov.govtech.net>.

facilitate the establishment of the appropriate infrastructure. This infrastructure should be network-centric, easy to market, process-less, designed for electronic service delivery, secure, trusted and interoperable. The next step in this process is having an enablement policy in place. These policies should engage citizens, provide connectivity, include the whole society and be open to learning. Finally, e-government should be client-centric, accessible, affordable, responsive, cross jurisdictional, transparent and renewable.

E-government also improves the business of government by creating more efficient and convenient citizen-to-government, business-to-government, and government-to-government interaction. Gartner research⁴ has shown that the e-government development process will progress through four distinct phases: Presence, Interaction, Transaction and Transformation. The first phase, presence, is where there is a web site that includes existing information about the government entity in concern. Implementation of this phase is low-cost and easy. The second phase is interaction where the focus shifts from providing generic and relatively static information to allowing the user to query a set of documents. Depending on the particular department, this set of information can be quite extensive, from manuals to frequently asked questions. The third phase is transaction where it highlights electronic transaction completion and the elimination of most if not all person-to-person interactions required for successfully conducting a specific piece of government business. The last phase is transformation where the systems are integrated both within and outside of government and new applications and new data structures are in place.

A new management structure will also be needed and this structure should demonstrate strong executive sponsorship for e-government. Without the right structure it would be impossible to complete the four phases of e-government described above. The new structure should allow for standardized technical specifications, a targeted public awareness campaign regarding the benefits of e-government, conflict resolution among e-government entities, and effective project management standards and procedures. Without implementation of an e-government

⁴ Keller, B. (2000) 'Creating the Right Management Structure for E-Government'. Gartner Strategic Planning Report, SPA-12-4301.

focused management structure, e-government initiatives are destined to become simply new sites for the publication of government information on the Web and the potential for transformation of government will not be realized.

EU Perspective

The European Summits at Lisbon (March 2000) and Feira (June 2000) put a European initiative for e-government on the agenda. It consists of four main tasks: firstly, the development of internet-based services to improve access to public information and services; secondly, the improvement of transparency of public administration by using the internet; thirdly, full exploitation of information technology within public administration; fourthly, establishing e-procurement⁵. The European Commission has launched substantial funding to facilitate innovative developments in close collaboration with European-wide projects. However, in many European countries e-government is still in its infancy. Although many countries provide information and access to their administration, they are quite far from the concept of “one-stop government”⁶.

There are two main problems with the quick implementation of this initiative. The first is that each country is left to implement e-government services on their own and they hardly coordinate projects. Secondly, it is difficult to employ the concept of “one-stop government” since each country’s administration process is functionally fragmented. In order to open a one single window for all government services, all of these fragmented parts of the state need to be integrated. Therefore, integration takes time and requires a lot of collaboration and coordination between the different parts of the state.

Since Europe is characterized by many different constitutions, distinct approaches to the realization of e-government can also be encountered and advances in the various countries have reached different stages of maturity.

⁵ Strejcek, G. and M. Theil (2002) ‘Technology Push, Legislation Pull? E-Government in the European Union’. *Decision Support Systems*, No. 34, pp: 305-313.

A Roadmap for e-Turkey

The objective for Turkey should be to reap the benefits of the digital economy while promoting equal opportunities for internet access and IT literacy among her citizens. Successful implementation of the e-Turkey initiative is also necessary to keep the country on the path leading to EU integration, to remain a strong regional player in her geography, and to develop productive cooperation particularly with all her European neighbors.

The first objective for Turkey should be to improve access to the internet. The liberalization of telecommunications services, at all levels, is of key importance for promoting greater competition and reducing access tariffs. This goes hand-in-hand with the provision of universal service and adequate information infrastructure in less-favored regions, and the protection of electronic data. Government can provide public internet access points to familiarize the general public with the new technologies.

The second objective should be to invest in people and skills. Although connecting all Turkish schools with decent speeds is an ambitious target that will take a significant number of years, the government should start pilot project and also seek creative funding the school curricula should be adopted to include information technologies. This means new courses need to be developed and the old ones need to be reviewed for their content. Internet access and basic information technology skills are necessary but not enough for integrating e-learning into school education. Electronic course material is needed that is adapted to the local or national culture and requirements; such development needs to be undertaken in multidisciplinary teams (with education and technology professionals) and is time and resource-intensive. Furthermore, it is critical to ensure the availability of adequate support services to teachers and students, and also to parents.

The third objective should be to increase the rate of the internet usage. Transformation to information society requires seamless flow of information between individuals.

⁶ Wimmer, M. (2002). 'A European perspective towards online one-stop government: the eGOV project'. *Decision Support Systems*, No.1, pp: 92-103.

Therefore, improving internet skills and increasing the rate of internet usage is critical. In order to achieve this objective:

- the government should implement e-government
- e-commerce should be promoted for better global competition
- the enabling regulatory changes (information security, digital signatures, e-notary, etc.) should be in place.

The most important role of the government is its ability to use the skills of information society. If the government provides continuing education via e-learning, utilizes the internet in healthcare services, and passes laws and regulations to increase e-commerce activity, then, Turkey would be able to make a quantum leap.

Concluding Remarks

Successful e-government requires changing how government works, how it deals with information, how officials view their jobs and interact with the public. Achieving e-government success also requires active partnerships between government, citizens and the private sector. The e-government process needs continuous input and feedback from the “customers”- the public, businesses and officials who use e-government services. Their voices and ideas are essential to making e-government work since the whole process is a participatory process.

E-government has multiple dimensions. Each dimension demands leadership, strategy, cross-coordination, and know-how, all combined with a technology strategy that makes vision a reality⁷. Each initiative should be designed to leverage others: e-government, infrastructure, attracting educated workers and improving the quality of life. A coordinated effort in this regard will create strategic advantage for a nation. Otherwise, good intentions fall victim to fragmentation and sub-optimization of opportunities. As in the words of Stephen Rohleder, “*Governments with a strong enough constitution to rise above the status quo can expect a bright future, if they will think out of the box and use the internet to reinvent themselves.*”

⁷ Caldwell, J. (1999) ‘The Quest for Electronic Government: A Defining Vision’, IBM Institute for Electronic Government Report.