

December 2002

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Recommended Citation

Iinigoj, Aleksander, "Gorika eRegion a New Vision That Can Be Accomplished by Educating Citizens and Improving eSecurity" (2002). *BLED 2002 Proceedings*. 23.
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Goriška eRegion a New Vision That Can Be Accomplished by Educating Citizens and Improving eSecurity

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Abstract

E-region is trying to provide cost effective on-line services for citizens, industries, schools and others in the region. The project is widely conceived but still the e-education and e-security seem to be the two areas with highest priority. The role of the federal government is concerning as it hasn't determined yet that most of the economic growth in the biggest world economies is due to the clear focus in the information and communication technologies. This paper is providing the focus of the project and its main goals in the beginning stage of the project. Although the concepts of the e-region remain quite ambitious, most of the companies, professionals and politicians in the region support it in the belief of the better future.

1. Introduction

Global industry is in an acute state of uncertainty. Within every company, every trade association meeting, in every product category, the Internet and electronic commerce form an important part of conversations (Prahalad and Ramaswamy, 2000). The environment in which we are living is increasingly based on computers and computer networks. Linking trends in world economy and integration forces inside Europe have an impact on accelerated introduction and development of modern information and communication technologies and Slovenia would like to be

a part of them (Krapše, 2001). Governments on national and regional levels have discovered that wider use of information technologies will become the competitive advantage for their economies in the future. It was about time that our country has realised that electronic operations and communication as well as the usage of corresponding technologies and tools are not a question of reasonableness but a decision of strategic thoughtfulness.

2. Technology and Costs

In the new economy that has been brought up with new technologies the municipalities face the dilemma on how to pursue the technologically enabled modes of providing traditional services. The question that is being asked in different groups is which specific municipal functions and services a region can afford and which can be possible to be technologically implemented. A research that has been done by Kaylor et al (2001) in the US suggests that there is a difference in the quality of on-line municipal services between the larger and smaller cities. Goriška e-region would be classified as a relatively small municipality, where many technological issues can not be implemented on a local level, but need more initiative on a national level in order to be cost effective. Some technologies are being tested together with local companies and industries. In the e-traffic project group a pilot project of introducing smart cards in the local bus transportation is being tested. Citizens will be able to purchase their tickets over the Internet and transfer their credits to the smart card which would be valid as a ticket. Also other local companies are willing to cooperate because they are aware of the higher competition after Slovenia joins European Union.

3. Goriška eRegion on the Edge of European Union

With the arrival of the new market competition which is becoming more global and intensive, the business environment is changing quickly and greatly. For companies all over the world and therefore also in the Goriška region it is important to master the demand information and to make quick decisions in order to provide satisfactory production and service (Xu, Wei and Fan, 2002). The world trends in the employment structure¹ with increased need for information technology specialists are also present in the region.

¹ A research which has been done in Spain has shown that sectors with high technological level revealed a low work intensity (Diaz and Tomas, 2002).

The project has started in August 2000, when the mayor of Nova Gorica announced the vision of the municipality being the first region in Slovenia to become an e-community. Perhaps it was the closeness to the West and the magnificent position in the neighbourhood of one of the most developed regions of the world that have influenced the openness of the region towards new ideas and technologies including those which base on access and flow of information and their usage in the daily life based on more and more efficient and accessible ways.

4. Helping the Economy Grow

Goriška region known mainly for its large casinos, is one of the biggest municipalities in Slovenia, but still has some difficulties in lack of information technologies specialist and companies dealing with new technologies, which can be crucial for providing new on-line services. Kolko (2002) suggests that information technology reduced the need for firms to be located near their clients. Information technology is though speeding convergence and lowering industrial concentration, with technology employment growing faster in suburban boomtowns. Perhaps this might be the right opportunity for the region which to become the boomtown or the Slovenian silicon valley. The future IT-intensive economy is more likely to have more stable wages and unemployment (Kolko, 2002).

5. Learning from the Pioneers

Researches have shown the existence of information and communication technology production and innovation geographical clusters in Europe. The high manufacturing intensity countries of the European Union are Finland, Sweden and Ireland, followed by the United Kingdom (Koski and Yla-Antilla, 2001). Those countries have different strategies in developing their information and communication technology sectors. Ireland and United Kingdom have attracted business activities of foreign companies, whereas in Sweden and Finland they mostly rely on value added by domestic companies (Koski and Yla-Antilla, 2001).

6. Project Groups within the e-Region

Goriška e-region programme has been structured in 12 fields of activities: e-work, e-education, e-business, e-environment, e-municipal, e-health, e-welfare, e-traffic, e-government, e-contents, e-access and e-security. It is arguable which of the

activities is less or more important as all of them can contribute to help users in the information society. However, there needs to be some priorities of what has to be done first and perhaps those are the reasons why e-security and e-education should be the first to be fully initiated. Only educated users that are computer literate can exploit the services e-region is trying to provide. And on the other hand the growth and the maturing of networking systems has also brought about an expansion of abuse within systems (Furnell and Warren, 1997, p. 62).

7. Building Trust with e-Security

In order for the Internet to be accepted as a viable platform for electronic commerce it is necessary to establish a foundation of trust among the participants. Trust is also important in the context of traditional commerce and has been developed over time through the formation of appropriate policies, procedures and practices to safeguard transactions and company assets (Furnell and Karweni, 1999, p. 373). The objective of security should be to manage risk by anticipating what is probably going to happen and limiting the risk exposures that could injure an organisation. Perfect security is infinitely expensive and so it is not a rational goal (Jacobson, 2000).

8. Digital Signature

Trust is an ongoing, market-oriented, economic calculation whose value is described by outcomes resulting from creating and sustaining a relationship to the cost of maintaining or severing it (Ratnasingham, 1998). The relationships are now getting a new electronic form, which would require more sustenance. The success of a system using digital signatures not only requires all the parties to trust the technology but also requires all parties to trust the processes, for a binding between a person and their digital identification – the certificate (Wilson, 1997).

9. Use of Security Services

The introduction of new services to the E-region would certainly see some low levels of trust especially among senior users for the following reasons: general uncertainty of users with the new technology, unpredictability of communications between people, lack of social, face-to-face communications. In order to overcome any initial problems of trust and ensure the security of transactions over the

Internet, certain mechanisms can be used such as: authorisation, authentication, integrity, confidentiality, availability, non-repudiation and privacy.

10. Educating Users

Schools, governmental institutions and some larger companies within the Goriška region use regularly computers and have Internet connections. Some regional schools have also pioneered in the use of distance learning techniques in Slovenia. However, the older generation of users is less familiar with the Internet and new communication technologies. Most of middle-size or larger organisations in the region use electronic mail for communication, but that is not enough (Krapše, 2001a). The main goal of the project would be improving information literacy in the region and by doing this setting the foundation for wider development of electronic commerce. Knowing basic attributes of information society, knowing how to use modern information communication tools and knowing how to use or implement electronic services has become a global necessity (Krapše, 2001). In the research that has been done by Kraševc (2001) most of the people with primary or secondary school education do not use Internet, while better educated users within the region are frequent Internet users. By improving the computer literacy the right foundation for other e-projects are set as well as possibilities for people and students with disabilities.

11. E-Learning for Students with Special Needs

Distance learning education and most likely the future of all education would be tutorial education (Bork, 2000). The traditional learning is very labour intensive where technology plays only a small part of education. Some secondary schools and faculties in Goriška region use computers to support the teaching of lecturers. Without doubt there is a large and potential market for a highly effective computer-based learning material, which would flourish new virtual universities or traditional universities offering some courses also in an electronic form.

So far virtual universities or the distance learning programmes have been targeting mainly students with full-time jobs, often with spouses and families (Peterman, 2000). The project Goriška e-region is trying to bring the education closer to people with special needs, such as invalids. Also students from remote and rural location can benefit from the distance learning as they would be able to do most of their studying from home. However, teachers in those programs need to have strong written skills as most of the non-verbal communication that is present in traditional classrooms needs to be expressed into text based actions.

12. Insufficiently Active Role of Government

The government has been a relatively silent observer of the Internet's rapid growth in the last decade. Many things have been said and done, while even some legislation to support electronic commerce was adopted in Slovenia in June 2000. However, most governmental institutions in Slovenia are not prepared for it and still show few signs of this happening soon. The World Bank Development indicators show that Slovenia has invested 3.3% of GDP between 1992 and 1999 in information and communication technologies, which is compared to 9.3% of New Zealand and 8.4% of Sweden far too little (Pohjola, 2002). The question remains if Slovenia and its government is willing to introduce new technologies on a larger scale which would bring a higher transparency in every aspect of the governance, which would mean more power to the people.

13. Conclusion

The current behaviour of the Slovenian government is still too distant but nevertheless it perhaps might soon learn when the next economic recession takes full place that one of the most important economic rules of all is that new technology is not a panacea that can cure every economic ill, especially when not tackled properly. Undoubtedly, the government should be following the example of many leading economies where electronic commerce and new information technologies are expected to be the main forces underpinning economic growth in the future.

The question which needs to be asked is, do we have an information strategy for the future and how do we stimulate people for using new technologies. Only users that would be capable of using information technology and would trust new ways of doing business are able take advantage of all the benefits that are brought with e-commerce. Therefore education and building a secure infrastructure should be the main foundations for the success of the entire project.

Goriška e-region and some other initiatives in different parts of the country remain some of the promising projects for Slovenia. With many traditional industries that are labour and industry intensive moving to the cheap labour countries, the high technology race becomes one of the most successful ways of opening new jobs and companies. Countries and municipalities are like companies, they need to define their future strategies clearly and the strategy oriented towards information and communication technologies for the new e-millennium is most probably the most viable strategy.

References

- Bork Alfred (2000) Four fictional views of the future of learning. *Internet and Higher education*, number 3, pp. 271-284.
- Diaz Sacristan Macarena and Tomas Quiros Javier F. (2002) Technological innovation and employment: Data from a decade in Spain. *International Journal of Production Economics*, vol. 75, pp. 245-256.
- Furnell M. S. and Karweni T. (1999) Security implications of electronic commerce: a survey of consumers and businesses. *Internet Research: Electronic Networking and Policy*, Volume 9, Number 5, pp. 372-382.
- Furnell M. Steven and Warren J. Matthew (1997) Computer abuse: vandalizing the information society. *Internet Research: Electronic Networking Applications and Policy*, Volume 7, Number 1, pp. 61-66.
- Kaylor Charles et al (2001) Gauging e-government: A report on implementing services among American cities. *Government Information Quarterly*, 18, pp. 293-307.
- Kolko Jed (2002) Silicon mountains, silicon molehills: geographic concentration and convergence of internet industries in the US. *Information Economics and Policy*, Volume 1, , pp. 1-22.
- Koski H., Rouvinen P. and Yla-Antilla P. (2001) ICT clusters in Europe, The great central banana and the small Nordic potato. *Information Economics and Policy*, Volume 1, pp. 1-21.
- Krapše Štefan (2001) Why program for e-community. *TELECITIES*, International conference, Marseille, 10-12. december 2001.
- Krapše Štefan (2001a): Regijski program E-regija, 1. verzija. URL:<http://e-regija.nova-gorica.si/E-regija.pdf>.
- Kraševc Tamara (2002): Rezultati ankete o elektronskem poslovanju. Mestna občina Nova Gorica in Visoka šola za Management. URL:http://e-regija.nova-gorica.si/aktualno_7.pdf. Februar 2002.
- Pohjola Matti (2002) The New Economy: facts, impacts and policies. *Information Economics and Policy*, number 1, 09.01.2002, pp. 1-12.
- Prahalad C.K. and Ramaswamy V. (2000) Co-opting customer competence, *Harvard Business Review*, January-February 2000, pp. 79-87.
- Ratnasingham Pauline (1998) Trust in Web-based electronic commerce security. *Information Management & Computer Security*, 6/4, pp. 162-166.
- Wilson Stephen (1997) KPMG Information Solutions: Certificates and trust in electronic commerce. *Information Management & Computer Security* 5/5, MCB University Press, pp. 175 – 181.
- Xu W., Wei Yiming and Fan Ying (2002) Virtual enterprise and its intelligence management. *Computers & Industrial Engineering*, 28.01.2002, pp.1-7.