e-Guidance & Virtual career development

Cristina Cogoi (1), Stefano De Liso (2), Tristana Harvey (3), Cristina Nucuta (4)

1 MELIUS srl, Via S. Felice, 3 - 40122, Bologna, Italy, e-mail: cristina.cogoi@meliusitaly.eu
2 TOTEM srl, Via Sicilia 51/a - 56030 Perignano (Pisa), Italy, e-mail: stefano@totemsrl.com
3 BLOOMSBURG UNIVERSITY OF PA, 1119 MCHS, Bloomsburg, PA, USA
   tristanachgo@hotmail.com
4 CITY HALL OF IASI, 11 Stefan cel Mare si Sfant Blvd, 700064 Iasi, Romania, e-mail: ncris@primaria-iasi.ro

1 ABSTRACT

Nowadays, the cultural and digital divide, and the overburdened of informatics are a challenge for guidance services. Thus, the testing of new methods of approaching disadvantaged people because of a distance from these services (geographic distance or distance connected to disability or personal difficulties) offer to decision makers an opportunity to improve the quality of lifelong guidance services. Adults pursue continuing education for a career enhancement need. In today’s workplace, we have Millennial’s, Gen-Xers, and Baby Boomers moving on and moving up in their careers. The use of technology in the provision of career services has become a necessity to meet each generations needs.

This thematic session will provide an overview on how such challenges are faced through:

a) A programme of virtual career development for adults through University Continuing Education at Pennsylvania State University (USA);

b) An innovatory service for inclusive and efficient e-guidance and e-government services, the eGOS project (www.egos-cip.eu)

2 INTRODUCTION

In June 2006 the European Commission adopted the new i2010 strategy - European Information Society 20101. Building on the Manchester Declaration from the 2005 Ministerial eGovernment Conference, it had five priorities:

- No citizen left behind
- Making efficiency & effectiveness reality
- High impact services
- Putting in place key enablers
- Strengthening participation

More than one third of the EU does not have access to ICT-based public services3. Member States have committed themselves to inclusive eGovernment objectives to ensure that "by 2010 all citizens, including socially disadvantaged groups, become major beneficiaries of eGovernment, and European public administrations deliver public information and services that are more easily accessible and increasingly

trusted by the public, through innovative use of ICT, increasing awareness of the benefits of eGovernment, and improved skills and support for all users.”

Inclusive eGovernment addresses social exclusion by focusing on delivery mechanisms along the supply chain so that all citizens, especially those most in need of government support, can benefit from the advantages brought about by eGovernment without necessarily using eservices themselves. Member States should now put in place multi-channel service delivery strategies, since this is likely to provide a sustainable model for inclusive public services ICT can make life easier for businesses and citizens by making administrations more efficient – quicker – and also more effective. In addition to specific services and specific excluded groups, the evidence shows that eGovernment is most successful when coordinated widely across the public sector at different levels – European, national, regional, local – as well as requiring the constant commitment and synergy of the main relevant players: governments, private sector and civil society in its various. Inclusive eGovernment is thus targeted at all groups that are at risk of exclusion from the Information Society, and groups that do not have equal opportunities to benefit from it. As already happens in several on-going actions, disabled and older people are obviously covered, but so are many other groups including those with low levels of education, low digital skills, the unemployed, ethnic minorities, people living in isolated areas, etc. In the Ministerial Riga Declaration on eInclusion of June 2006, the term “eInclusion” concerns both inclusive ICT and their use in order to reach wider inclusion goals. eInclusion aims at the participation of all citizens and communities in all sectors of the information society. Thus, policies focused on eInclusion should aim at reducing gaps in ICT usage and at promoting its use in order to overcome exclusion, improve economic performance, employment opportunities, quality of life, social participation and cohesion. The Member states agreed to significantly reduce regional disparities in Internet access across the EU and aim for broadband coverage to reach at least 90% of the EU population by 2010. Furthermore, one of the Riga’s goals by 2010 should be that to reduce of 50% the gap in Internet usage for groups at risk of exclusion, such as older people, people with disabilities, women, and unemployed persons. The main goal is to investigate on chances for the improvement of the economic welfare and employment in Europe thanks to the promotion of an open and digital economy. That meets the objectives of the Lisbon Strategy and three priorities are proposed in order to improve the European information society political programmes:

1. have a Single European Information Space with the aim to support an open, competitive and content-rich internal market for electronic communications, media and content;
2. improve Innovation and Investment in ICT research in order to support growth and jobs through a wider adoption of ICT;
3. have an Inclusive European Information Society focused on reaching better public services and quality of life.
4. "Transforming Public Services".

3 THE METHODOLOGICAL APPROACH

A) With reference to the programme of virtual career development for adults through University Continuing Education at Pennsylvania State University.

Practitioners with the knowledge about the development and implementation of Penn State Continuing Education’s Career Planning program. Penn State’s program utilizes formal and informal learning methods to provide career programs to participants across Pennsylvania and their World Campus using technology. Resources such as iTunes, Facebook, YouTube, Webinars, and Second Life are utilized to provide career information. Information on the link of these resources as a supplemental learning tool for face to face workshops/courses will be provided. The goals of the program are (a) to inform participants about technology resources to disseminate career development information; (b) provide recommendations for

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4 Riga Ministerial Declaration in June 2006. URL:

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planning adult career development short courses; and (c) discuss implications for implementing career programs through university continuing education programs for lifelong learning.

B) The eGOS project will pilot a prototype service of integrated and highly customised educational and vocational e-guidance services, also to cross-border mobility, in 5 partner countries (Bulgaria, Iceland, Italy, Romania, Spain) with the aim to:

- Integrate the traditional guidance services with distance ones in order to reach also those target groups that, for different reasons, have access with difficulties to traditional help-desks and wouldn’t have access to them. Thus, we can speak about inclusive e-guidance;
- Deliver highly customised on users’ needs and sophisticated e-guidance services;
- Improve and support cross-border mobility for educational and professional reasons;
- Reduce in a long term administration costs of these services when delivered in a traditional way;
- Simplify internal administration procedures in a medium and long term;
- Train guidance practitioners to use ICT-based tools in the delivery of help services to their clients in view of a future implementation of the service;
- Train and inform final beneficiaries on the use and benefits they will be able to have in using the eGOS system;
- Test a prototype that will be commercialised after the project end by the core partners\(^5\) to public but also private services to citizens, not only in the guidance field but also related to other e-government areas (i.e. social, health, transports services, etc.);
- Raise-awareness among decision makers on the benefits of the use of ICT in government services through dissemination activities organised during the whole project length;
- Contribute, in a long term, to change the mentality of practitioners and convince them on the benefits that the IT can offer supporting them in their daily practice.

The project will thus aim at giving support to two main policy priorities:

- **Final users employability.** That will be reached not only through vocational guidance activities but also through educational advice and guidance that will enable final users to improve their knowledge and competences in different areas, thus increasing their employability profile;
- **Capacity building of guidance practitioners.** They will be trained to the use of ICT-based tools in the delivery of guidance services to their clients.

When we speak of eGOS as an “integrated system\(^5\)” we mean that the eGOS prototype will be jointly used with already existing traditional educational and vocational guidance services. Users who won’t use distance guidance activities will have the possibility to receive help and advice in a traditional way as always. Thus, digital divide won’t be improved but, on the contrary, information and training activities for final users will be organised during the project length. In addition, the eGOS prototype will be based on a multi-channel open source platform called WISP - Web-based Integrated Services Platform - that will enable e-guidance practitioners to deliver their information, advice and help services to final beneficiaries by using different ICT-based tools such as video-conferencing, e-mail, chat-rooms, fora, etc. Finally, the service will be based on the integrated use of software, hardware and contents’ supply.

**Users** of the eGOS system can be divided into two main targets:

- **Guidance practitioners using the eGOS system in e-guidance delivery.** They will be trained to acquire guidance-related ICT competences during the project length and who will use the eGOS prototype during the pilots and after the project end. Only practitioners with a professional profile and experience in the educational and vocational guidance field will be selected for the training and will be in charge with the e-guidance services’ delivery.

- **Final beneficiaries taking advantage of the eGOS system.** They will benefit of educational and vocational e-guidance activities during the pilots’ length and after the project end. We consider that the following categories could mostly take advantage from these services:
  - Citizens living in remote geographical areas;

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Citizens living in areas with no or few traditional guidance services;
Citizens with little flexibility in time: workers, women with children;
Citizens with reduced mobility capacities: people with health or physical mobility problems, seniors;
Social challenged citizens as school drop-outs;
“Shy” users preferring the intermediation of ICT-based instrument than direct relationship with a practitioner.

There will be other categories of final beneficiaries that couldn’t take benefit from e-guidance services for psychological or socio-economic reasons. In this case, they will be able to have access to the traditional guidance services as always. We consider they could be the following ones:

- Citizens with no digital literacy;
- Citizens with a low employability profile and needing the face-to-face support of a guidance practitioner;
- “Shy” users preferring face-to-face contacts in advice and help situations. Note that there are also shy users preferring to “hide” themselves behind ICT-based tools as above mentioned.

The eGOS system will be tested in 5 countries and 9 pilots. It was decided to include tester partners that could form a representative sample of pilots, i.e. standing for the European complexity of vocational and educational guidance systems in terms of governance and management levels, covering different geographical areas and reaching different types of users.

There are 4 main strategic approaches leading the rationale behind this choice and their matching will feature the peculiarity of each pilot:

- The type of governance and administration of guidance services;
- The geographical coverage;
- The users’ target;
- The type of e-guidance activity delivered (i.e. educational guidance, vocational guidance to mobility, vocational guidance to entrepreneurship, etc.).

Both national (ministries) and local governments (provincial authorities, municipalities and chambers of commerce) were included in the sample of pilots even though the management of guidance services is in some cases committed to third public and private bodies, according to their national and local rules and educational and employment systems (i.e. guidance is always considered as a transversal activity to these systems). Thus, we have pilots represented by NGOs but whose guidance activities are managed by ministries, private cooperatives whose guidance activities are managed by municipalities, universities depending in the guidance delivery from the Ministry of Education, provincial authorities in charge with delivering guidance services through their network of public employment centres and so on. According to this type of approach all pilots have their peculiarity and differ in terms of governance and/or guidance services management. The choice on the European countries to be included in the partnership and to host one or more pilots has been mainly based on the level of sophistication maturity reached in e-government services delivery. With reference to the individual country ranking regarding online sophistication maturity Bulgaria, Romania and Iceland are under the threshold decided by the EC to be achieved by 2007 and Italy and Spain are slightly above it. Thus, these countries have a quite big gap to be filled-in in order to reach the recommended approach of “personalisation” of e-government services. These countries compose the eGOS partnership and the project aims is to test a system that, in medium term, could fill in this gap in the e-guidance field. In addition, regions with remote areas to be reached or with areas with few services to citizens have been included. eGOS will modernise services (ICT-based) and it will be possible to reach also users that couldn’t be reached by traditional services as already described at the beginning of this project proposal. Different types of users will be reached according to the institutional background of the tester organisation. Pilots will finally differ in the guidance area of interest. There will be testers in charge with educational or vocational guidance, also to cross-border mobility or not. Each tester partner decided the implementation strategy of the eGOS system according to its geographical, institutional and socio-economic background.

E-guidance activities will be delivered to final beneficiaries according to 4 levels of delivery according to their sophistication level:
First level delivery. Information on educational and vocational issues, also to cross-border mobility. That will include the following activities for final beneficiaries: Collecting, organising and maintaining information on the WISP pertinent to education, training, occupations and employment opportunities.

Second level of delivery. Advice to educational and vocational issues, also to cross-border mobility. That will include the following activities with final beneficiaries: Help clients in the effective use of information found out on the WISP; Help clients in clarifying some information resources found out on the WISP; Refer clients, when needed or required by them, to traditional guidance services available in their territorial area or in other ones.

Third level of delivery. Counselling on educational and vocational issues. That will include the following activities with final beneficiaries: Assisting individuals to select courses; Make educational plans; Overcome learning difficulties; Prepare for post-secondary education/training; Fostering the attitudes, beliefs and competencies that facilitate mastery of vocational development tasks, the ability to plan and adaptation to work-role transitions over the life-span; Supporting individuals in their efforts to obtain occupational positions by teaching job search skills and creating employment opportunities.

Fourth level of delivery. Vocational guidance specialised actions. That will include the following activities with final beneficiaries: Promoting self-reflection to clarify self-concepts, identify options, make decisions and resolve difficulties for what concern the insertion into the labour market or the change of the professional plan; Measure an individual’s abilities, aptitudes, barriers, life roles, interests, personality, values, attitudes, educational achievements, skills and other relevant information for what concern the insertion into the labour market or the change of the professional plan.

Specialised guidance actions will be framed into 3 main e-guidance interventions:

- Group counselling for the active job search;
- Skills assessment paths;
- Tutoring and support paths to employability for people with more difficulties.

These activities will have to be treated with extremely tact and delicacy, especially those concerning number 3 and 4 of the above-mentioned list, due to clients’ personal and professional spheres that will be “touched”. For that, only practitioner with experience in the field will be selected to attend the guidance-related ICT training path. They will have to demonstrate the following core competences: Ethical behaviour and professional conduct; Advocacy and leadership in advancing clients learning, career development and personal concerns; Awareness and appreciation of client cultural differences; Awareness of their own capacity and limitations and, if it should be the case, capability to refer the client to other traditional guidance services; Ability to design, implement and evaluate guidance and counselling programmes; Familiarity with information on educational, training, employment trends, labour market and social issues.

The eGOS system offers personalised/customised services on users needs that, according to the last EC reports, are to be considered the last level of the sophistication in on-line services and aim at overwhelm the EU average level (see below the figure).

Figure 1 - Sophistication of online services

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6 Repetto et al. (2003). International Competencies for Educational and Vocational Guidance Practitioners. IAEVG/AIOSP.
eGOS has to be considered as a first innovative service in its complex as it gather in one prototype services for educational and vocational the following key issues that are recognised by the EC as topics to be addressed in an inclusive eGovernment:

- Sophistication in the delivery
- Customisation on users needs
- E-interactivity practitioner-final beneficiary
- Multi-channel delivery
- Capacity building of guidance practitioners in terms of guidance-related ICT competences
- Collaboration among private and public bodies in the frame of the system and delivery of e-guidance actions
- Secure access to the WISP managing contents and treating personal and sensible data of final beneficiaries
- Empowering final beneficiaries with digital literacy through specific information and training activities
- Equipping public services with the necessary hardware and software in order to manage e-guidance
- Improve eAccessibility of the services by nearing eGOS services access to final beneficiaries (EG-kiosks, EG-stations, etc.)
- Involving users (e-practitioners and final beneficiaries) in the evaluation of the system for a future improvement and commercialisation
- Raise-awareness among stake-holders and public officers on benefits of ICT-base tools in guidance delivery and on potentialities of such a system

The eGOS key issues listed above can be tracked in the following scheme on the inclusive eGovernment issues (i.e. correspondence of the project towards an inclusive eGovernment according to the EC).

Figure 2. A map of inclusive eGovernment key issues

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4 ETHICAL IMPLICATIONS AND PRIVACY ISSUES

The goal of establishing ethical principles for the design and use of ICT in career guidance is to promote the effective provision of career resources and the effective delivery of career services. The intention of ethics is also to protect the welfare of clients by identifying potentially harmful computer applications as well as identifying services making inappropriate use of ICT. Guidance practitioner competences are essential to the effectiveness of ICT-based career resources and services. Achieving an appropriate level of practitioner competency with ICT also helps to avoid potential ethical problems resulting from guidance practitioners' actions or failure to act. We made a comparison between guidance services offered traditionally (face-to-face) and the use of ICT tools in e-guidance. Were identified possible risks that may occur by providing e-guidance using ICT tools, namely: inadequate guidance support for individuals using e-guidance resources, problems with distance guidance, and the validity of career assessments and information available on the Internet. Service delivery at a distance is a key element of e-Guidance and includes client use of Internet Web sites with support from a career guidance practitioner or practitioner interaction without use of a Web site. Practitioners can interact with clients via e-mail, chat, telephone, or videoconferencing. Distance interventions range from practitioners offering brief answers to simple questions to the provision of several sessions of guidance. A variety of service-delivery levels can be facilitated at a distance, including supported self-help, brief assistance, or intensive assistance. While some individuals can make good use of e-guidance resources on a Web site, others cannot make effective use of assessments and information with out assistance from a guidance practitioner. Most Web sites provide no recommendations indicating the circumstances when self-help is inappropriate and a guidance intervention is needed. Individuals may use Web-based self-help resources, experience difficulty, and inappropriately conclude that they cannot be helped, when in fact a guidance intervention might have been effective (Sampson, 1999). When using distance services, clients need to be fully informed about the nature of the services they are receiving, including what the service entails and how it is delivered. Privacy, confidentiality, legal and ethical questions, grievances, termination and other appropriate questions should be addressed in the service delivery process. A variety of emergency situations can result in harm to clients or others. A critical emergency situation can occur when a client discloses that they are contemplating harming themselves, including committing suicide. Another critical situation can arise when a client discloses that they are planning to harm another person (Ravis, 2007). Both of these situations require prompt and decisive action by the counselor. If practitioners have limited awareness of various multicultural issues, they may be unprepared to provide guidance services to clients in distant communities that differ from the groups they typically serve (Anthony & Jamieson, 2005; Malone, 2007b; Ravis, 2007).

There are some recommendation for ethics in e-guidance:
- Web sites that provide career assessments and information should include links to qualified and credentialed practitioners who can provide guidance when needed.
- Guidance professionals use informed consent to indicate to clients what persons are collecting and have access to the client’s personal information, what security issues exist with an online format, and for how long records will be stored.
- Guidance professionals educate their clients concerning the challenges and problematic situations that may occur during distant guidance.
- Guidance professionals screen clients for suitability with respect to the specific distance services intended to be used.
- If possible guidance practitioners should limit distance guidance to clients from cultural backgrounds that are familiar, or do appropriate preparation when offering services to clients from cultures that are different from one’s own.
- Guidance practitioners should assess their own level of preparedness to work with clients from a different locale.
- Evidence of the quality of the assessment, including reliability and validity, need to be included in the professional manual and training materials for the measure.
- The intended purpose, the target audience, and the potential use of the information should be clearly identified.

Privacy is internationally recognized as a human right in Article 12 of the 1948 Universal Declaration of Human Rights and in Article 17 of the International Covenant on Civil and Political Rights (ICCPR). On the regional level, treaties that make privacy a legally enforceable right include the European Convention for the Protection of Human Rights. In the context of e-Government, “privacy” specifically refers to principles for the fair use of information. The concept of fair information practices holds that the citizen retains an interest in the information collected by the government in the course of a required or voluntary interaction. The citizen’s rights include a right to insist that the information be used only for the purposes for which it was collected, that it be retained no longer than necessary, that it not be re-disclosed, that it be kept in accurate form. Taken together, these rules for the fair use of information are known as “fair information practices.” They are globally recognized by international and regional bodies and are enshrined in key human rights instruments. The national laws regarding protection of personal data from all 5 partners’ country (Bulgaria, Italy, Iceland, Romania and Spain) implement the Directive 95/46/CE and there are no legal impediments for developing WISP. To ensure adequate protection of personal and sensible data according to national and EU’s regulations, each partner in the project has designated a Data Protection Officer (DPO) for their organization. We will develop an Information Security Policy which must be adopted by all the project’s partners. Each partner will make all efforts to ensure the fact that this policy is known and applied by all those involved in the project (including e-practitioner’s training). The policy will have two parts: a private part (for internal use among the Consortium partners) and a public part. The public part, which must be made available for all the users of eGOS services, will contain the following: Privacy policy, Informal consent, Legal Notices, Use of Site – disclaimer. These documents must be published into eGOS webpage. The private part of Information Security Policy will contain the following procedures: Personal and sensitive data protection, Communication security, Tokens usage, Backups and recovery, Records Retention and Disposal, Incident Reporting, Password usage, Logical and physical access security to WISP servers and application. As authentication devices, we will use two factor authentication tokens. Two-factor authentication provides stronger security for even the most sensitive information. Typically, this type of system requires “something you have,” such as a token or smart card, and “something you know,” such as a PIN (personal identification number) or password. This way, even if a thief steals a token or a password, the network is still protected. Tokens, which are small pieces of hardware provide a unique passcode each time a user logs in to the system. After entering the passcode, the individual follows up with his or her PIN to access applications and data. Tokens are used in conjunction with server-side software that validates the user’s identity and authorizes access. No software is installed on the endpoint device, so tokens can be used anywhere, on any computing system, including desktops, laptops, and personal digital assistants (PDAs), as well as public terminals in airports and other locations. The model solution will have the following elements:
- Authentication server software for e-practitioners
server certificate
client certificate for EG-stations
e-practitioner’s authentication tokens with 2 authentication factors

5 HARDWARE AND SOFTWARE EQUIPMENT

As hardware equipments, in the eGOS project we will have EG-kiosks. An EG-Kiosk represents an innovative concept kiosk, as it has been engineered to have a friendly approach with most kind of final users. Basic criteria in developing EG-kiosk were related to his external design, with the intention to build a new original friendly good looked kiosk, keeping in great consideration hardware accessibility in order to guarantee the easiest access to the Egos services for every physical user typology. Particularly care was dedicated to give a good usability to wheelchair users. EG-kiosk is an outdoor kiosk built in stainless steel and tempered glass, it provides a full protection against any weather eventuality, and it will offer protection against hot temperature so as cold and wet climate condition. The particular light structure makes it as a good solution for indoor environment too, and the wide glass surface allows interesting personalization and space availability for instruction note. Hardware components will be selected from specialized supplier. The EG-kiosks will have industrial high-bright monitor for outdoor environment with secure touch screen also for indoor installations. Either the stainless steel keyboard or the trackball will be IP65 certified. On the low part of the roof will be applied an outdoor webcam, a microphone will be integrated on the frontal plane. The eGOS’s project prototype is based on a multi-channel open source platform called WISP - Web-based Integrated Services Platform - that will enable e-guidance practitioners to deliver their information, advice and help services to final beneficiaries by using different ICT-based tools such as video-conferencing, e-mail, chat-rooms, forum, etc.

The architecture is simply based on two layers. The external layer, the only one visible for users, can be in turn divided in three main parts, as they are built on a common nucleus (the internal layer).

1. Content Management System (CSM)
The CMS is the web portal of eGOS. It will contain multilingual information about eGOS aimed to different users (final users, municipalities, new and incoming partners, etc.). All partners will use it in order to communicate among them all along the three years of eGOS project (mailing list, chat, and forum). They will be able to share their documents using some extra tools (concurrent versioning system). Also final users and e-practitioners will use the communication tools.

2. Broker System for Multichannel Services (BS)
The BS will be the core of WISP and can be roughly described as a virtual agenda shared among users and e-practitioners. It will be based on:
- A database containing relevant information on all e-practitioners at disposals for a Service (areas of competence, experience, technological abilities)
- A database containing general profiles of users asking for guidance services. Thus user and e-practitioners are bid
- A spooler trying to match requests and offers.
The BS will keep a lot of all successful and unsuccessful transactions, and will be useful for monitoring service requests, comments and feedback so to contribute to the final evaluation of the eGOS project.

3. An E-Learning Platform (ELP)
It will be used mostly to teach operators new techniques of guidance by means of digital communication tools (chat, sms, e-mail). The ELP will stay open for three years to support operators after the end of official online courses

All three sections are built on the internal layer, that is:
a) A Database Management System with a central user database
b) A set of Communication Tools, with different levels of privacy protection: sms, mail, forum, chat, audio conference, videoconference
c) A single HTML rendering engine, designed to ensure accessibility and portability on every device (Totem, PC, GPRS telephone, etc.) for all information produced in eGOS.
6 REFERENCES


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