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INTEGRATED INFORMATION

International Conference on Integrated Information

Kos, Greece  September, 29 – October, 3 2011

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All papers have been peer-reviewed

Piraeus, Greece, 2011
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Aims and Scope of the Conference

The International Conference on Integrated Information 2011 took place in Kos Island, Greece, between September, 29 and October, 3, 2011. IC-ININFO is an international interdisciplinary conference covering research and development in the field of information management and integration.

The conference aims at creating a forum for further discussion for an Integrated Information Field incorporating a series of issues and/or related organizations that manage information in their everyday operations. Therefore, the call for papers is addressed to scholars and/or professionals of the fields of Library and Archives Science (including digital libraries and electronic archives), Museum and Gallery Studies, Information Science, Documentation, Information Management, Records Management, Knowledge Management, Data management and Copyright experts the latter with an emphasis on Electronic Publications. Furthermore, papers focusing on issues of Cultural Heritage Management and Conservation Management are also be welcomed along with papers regarding the Management of Nonprofit Organizations such as libraries, archives and museums.

One of the primary objectives of the IC-ININFO will be the investigation of information-based managerial change in organizations. Driven by the fast-paced advances in the Information field, this change is characterized in terms of its impact on organizations that manage information in their everyday operations.

Grouping emerging technologies in the Information field together in a close examination of practices, problems and trends, IC-ININFO and its emphases on integration and management will present the state of the art in the field. Addressed jointly to the academic and practitioner, it will provide a forum for a number of perspectives based on either theoretical analyses or empirical case studies that will foster dialogue and exchange of ideas.

Topics of general Interest


Symposia

The Conference offered a number of sessions under its patronage, providing a concise overview of the most current issues and hands-on experience in information-related fields.

- Symposium on Integrated information: Theory, Policies, Tools
- 4th Symposium on Business and Management and Dynamic Simulation Models supporting management strategies
• Session on Open Access Repositories: Self-archiving, Metadata, Content policies, Usage
• Session on Evidence-Based Information in Clinical Practice
• Session on Business Management and Communication Strategies supporting Decision Making Process in Tourism Sector
• Session on Electronic Publishing: A Developing Landscape
• Session on Information and Knowledge Management
• Session on Information Content Preservation as Outcome of Conservation of Cultural Heritage: Ethics, Methodology and Tools
• Session on Advances Information for Strategic Management
• Session on Information History: Perspectives, Methods and Current Topics
• Session on Divergence and Convergence: Information Work in Digital Cultural Memory Institutions
• Session on Contemporary issues in Management: Organisational Behaviour, Information Technology, Education & Hospital leadership.

The wide range of aspects that the sessions covered, highlighted future trends in the Information Science.

**Paper Peer Review**

More than 300 papers had been submitted for consideration in IC-ININFO 2011. From them, 91 were selected for presentation, after peer review in a double blind review process. The accepted papers were presented at IC-ININFO 2011.

**Thanks**

We would like to thank all members that participated in any way in the IC-ININFO 2011 Conference and especially:

• The famous publishing house Emerald for its communication sponsorship.
• The co-organizing Universities and Institutes for their support and development of a high-quality Conference scientific level and profile.
• The members of the Scientific Committee that honored the Conference with their presence and provided a significant contribution to the review of papers as well as for their indications for the improvement of the Conference.
• All members of the Organizing Committee for their help, support and spirit participation before, during and after the Conference.
• The Session Organizers for their willing to organize sessions of high importance and for their editorial work, contributing in the development of valued services to the Conference.
• PhDc Marina Terzi for her excellent editorial work, contributing in the production of the Conference proceedings.
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Professor Amanda Spink has published over 340 scholarly journal articles, refereed conference papers and book chapters, and 6 books. Many of her journal articles are published in the Journal of the American Society for Information Science and Technology, Information Processing and Management, and the Journal of Documentation. She is Editor of the Emerald journal Aslib Proceedings. Amanda’s research has been published at many conferences including ASIST, IEEE ITCC, CAIS, Internet Computing, ACM SIGIR, and ISIC Conferences. Her recent books include Information Behavior: An Evolutionary Instinct and Web Search: Multidisciplinary Perspectives, both published by Springer. Amanda’s research focuses on theoretical and empirical studies of information behavior, including the evolutionary and developmental foundations. The National Science Foundation, the American Library Association, Andrew R. Mellon Foundation, Amazon.com, Vivisimo.com, Infospace.com, NEC, IBM, Excite.com, AlltheWeb.com, AltaVista.com, FAST, and Lockheed Martin have sponsored her research. In 2008 Professor Spink had the second highest H-index citation score in her field from 1998 to 2008 [Norris, M. (2008)]. Ranking Fellow Scholars and their H-Index: Preliminary Survey Results. Loughborough University, Dept of Information Science Report.]
Session on Open access repositories: self-archiving, metadata, content policies, usage.

Organizer: Dr Alexandros Koulouris
Department of Library Science and Information Systems
Technological Educational Institute of Athens

Co-organizer: Professor Sarantos Kapidakis
Laboratory on Digital Libraries and Electronic Publishing
Archive and Library Sciences Department
Ionian University

Description: In the last decade, repositories are increasing and they are of great importance in the field of integrated information. Users self-archive content into institutional and/or thematic repositories. Different submission workflows are applied, various content policies are used, different metadata schemes are mapped and different usability issues are arrived. This symposium will try to analyze these questions in the content of information integration. Topics include but not limited to self-archiving (e.g. workflows, case studies) metadata mapping (e.g. models, successful implementations), metadata schemes and profiles (e.g. models, case studies), content access and reproduction policy models, institutional vs. thematic repositories usage (e.g. comparative studies, users trends), web 2.0 technology adoption, users annotations in open access repositories, etc.
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Geographical Collections in Greek Academic Libraries: Current Situation and Perspectives

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Abstract: The paper aims at exploring the existence of geospatial collections and the GIS services in Greek academic libraries through a research in their websites. The initial hypothesis is that Greek academic libraries are not familiar with geographical information and services and therefore they have not developed efficient collections and services for their patrons regarding geospatial data. Thus, a research was conducted in various Greek Higher Education Institutions for departments affiliated with geographic information and the use of GIS and those specific libraries websites were scrutinized for the existence of any geographical collection. The findings indicate that only three academic libraries and one Technological Education Institute’s Library offer geospatial information to their users and this specific investigation confirms the hypothesis that Greek university libraries haven’t developed geographical collections and services despite the fact that Greek Universities sustain an efficient number of departments related to the subjects of geography, geology, environmental studies etc. However, these findings should be considered within the wider context of geospatial information in Greece and how this particular kind of information is spread.

Keywords: Geographic collections, Geospatial data, Academic libraries, Digital libraries, GIS services.

I. INTRODUCTION

Geospatial information is vital for economic growth and social interaction and today is recognized as a basic infrastructure of a developed society; knowing where things are located forms the basis of spatial analysis and it has been recognized at the policy level as deserving much attention (Boxall, 2006). The proliferation of digital geographic information publication from the public and private sector and the rapid development of powerful and low cost computers, when coupled with the expansion and popularity of GIS, provide libraries and information services with new challenges and new opportunities. The opportunities for these organizations include the ability to present map information in more dynamic forms than previously possible; the increased information query, the interpretation, and display capabilities; and the access to more current information. GIS technology consists one of the analog to digital material transform that have been occurring in libraries recent years and furthermore a way to provide new services to their patrons (Boisse & Larsgaard, 1995).

The intention of the paper is to overview the current situation in Greece concerning the geospatial data collections. Although GIS are used in a great range of applications in Greece, and a great amount of institutions and information services (e.g. Institute for Mediterranean Studies: “Digital Crete”, Institute for Byzantine Research: “Byzantine Monuments of Attica” e.a.) are using it for providing information services to the public, the implementation in academic libraries has not been developed sufficiently.

This article presents the findings of the research in Greek academic community and attempts to demonstrate the current situation of geospatial data in Greek academic libraries.

II. LITERATURE REVIEW

Larsgaard (1998) defines that geographical collections in US and Canada include maps, air photographs, satellite images, atlases, gazetteers and miscellaneous other materials, while several researches (Kinikin & Hench, 2005; Kinikin & Hench, 2005a; Gabaldon & Replinger, 2006) indicate how the ARL GIS Literacy programme in 1992 was determined for the implementation of GIS services in US academic libraries, although there was a compilation of fundamental aspects that affected libraries in developing geographical collections. A research conducted by authors (Vardakosta and Kapidakis, 2011) to 133 websites of US academic libraries determined that 95 (71%) of academic libraries appeared to sustain GIS services. The increased use of geographic information, was a great motive for numerous researchers to get involved in various projects (e.g. “Alexandria Digital Prototype”, “Perseus”, “DIGMAP”, “INSPIRE”, “GEOMIND” e.a.) which developed to use standard internet technologies, such as forms written in the Hypertext Markup Language (HTML), Perl scripts, Java (Toctermann e.a., 1997), investigate the digital gazetteers (Hill, 2000), disambiguate geographical names (Smith & Grane, 2001), and pay special attention in metadata use (Gluck and Lu, 2000; Steinhardt, 2006) and architecture as well (Weaver, 2003). Janee (2009) points out that geospatial information is defined by a number of characteristics which differentiates it from other digital content, Boxall (2006) states that within information science field, policies for such kind information format is a useful tool.

Although in Greece digital collections are rapidly growing up in all aspects of sciences and by different kinds of libraries and organizations, our research
indicates that geographical digital collections have not been developed by academic libraries. The research is therefore exploratory and goes some way to address the research gap in how academic organizations have managed their GIS development. Another factor that highlights the uniqueness of the study is that it suggests some specific actions that should be taken and some notable characteristics that should be carefully addressed from any library or information service that wants to provide efficient GIS services.

III. METHODOLOGY & STUDY RESULTS

As geographic collections consist a particular source of information which is expressed with the use of GIS initially Greek universities were investigated in order to locate those ones that operate departments such as Geography, Geology, Topography etc in other words studies to sciences which traditionally and mostly in practice, use GIS for gathering and analyzing geospatial information. Among 23 Universities and 15 Technological Educational Institutions (TEI)65 (n=38), 11 Universities and 3 TEI (14) (36.8%, 14/38) offers affiliated studies. Specific information regarding the examined questions was recorded and stored in a Microsoft Excel spreadsheet.

Results of the study regarding our three main questions are as follows:

1) How many libraries provide geographic collections?

Out of 11 Universities of Greece and 3 Technological Educational Institutions that offer studies regarding Geography, Geology, Topography, Geoinformatics, Natural resources, Natural disasters etc only 2 libraries offer digital geospatial data and digital maps (14.2%, 2/14).

2) What kind of services do they offer to their users?

In particular the Agricultural University of Athens provides geospatial data and the ability to use them either in local or network basis. University of Aegean has developed digital map services while Harokopio University of Athens provides evaluated links in digital context and finally the Technological Educational Institute of Serres has developed a subject portal related to history of cartography (28.6%, 4/14).

3) Do they have collection development policies related to geospatial collections?

Despite the fact that collection development policy is a familiar internal work of librarians, however, none of the above four Institutional libraries sustain collection development policies for geospatial data.

4) Do they sustain an institutional repository?

Institutional repositories appeared to be developed by the overall examined academic libraries holding GIS services (28.6%, 4/14).

65 [http://www.ypepth.gr/el_ec_category131.htm](http://www.ypepth.gr/el_ec_category131.htm) Ministry of Education Lifelong Learning and Religious Affairs [access 29.5.11]
information, something regarded as a first step of recognizing their patrons advanced needs. Collection development policies have been considered as an essential process in the library world in which librarians assemble a variety of material in order to satisfy the demands of the users (Evans, 1987, p.). The rapid transformation in how information is prepared, presented and packaged is reflected in collection management librarian’s work. Changes in publishing, scholarly communication, technology and budgeting redefined what a library collection is, how it is acquired and how it is used (Nabe, 2011). Moreover, geospatial data collections development require significant policies regarding user demands, budgets, license restrictions, availability, data formats, staffing resources (Longstreth, 1995). Additionally, users of GIS are not necessarily part of the same community as users of printed geographical information while current events influence the use of printed maps they have had little impact on the use of GIS data (Florance, 2006). The research reveals that the above task (collection development policy) either is not used nor was it concerned as an important factor so to be demonstrated in library’s website.

Institutional Repositories are used by all researched libraries for collecting, organizing and preserving grey literature and scholarly publishing of their institutions but there is not any significant collection of the geospatial data that institutions produce through these works or any other research projects they undertake.

On the other hand as it can be identified there is an absence of geospatial collections in Greek academic libraries and some of the reasons are:

1) Academic libraries in Greece have not developed efficient co-operations with their institution’s departments familiar to the use of GIS (Geography, Geology, etc) which use geospatial information and technology for educational purposes.

2) Geospatial data so far are produced by specific public organizations (e.g. Hellenic Statistical Authority, Hellenic Army General Staff, Hellenic Navy Hydrographic Service, e.a.) for their own use or commercial companies.

3) The cost of geospatial data is quite expensive and that is prohibited for the low budgets that libraries sustain especially during the recent years.

4) There were no national or European programmes which could fund such an initiative in academic libraries (as it happened in US).

5) GIS services require specific infrastructure, hardware (computers, printers, digitizers, scanners, GPS units, and plotters) and software (commercial or open source).

6) Greek librarians do not seem to be familiar with geospatial data and probably curricula in Librarian’s Schools or seminars should be organized as librarians will be the ones who will educate their patrons in the use of the service.

7) So far, academic libraries in Greece do not collect geospatial data that are developed in their institution in order to proceed in organizing metadata, policy issues etc.

Since GIS is an expensive resource (infrastructure, staff, data, and education) not all institutions can afford it. Partnerships are a concept that could be proved crucial in fulfilling this mission and has not been fully examined by researches explorative for GIS in libraries. They may include enhancement of existing relationships with the Geography department or the Computer Centre of the University. Another form of partnership could be with other entities, (Argentati, 1997; Boisse and Larsgaard, 1995; Cox and Gifford, 1997; Steinhart 2006) where each partner contributes what they do best and so each partner benefits.

Geospatial data infrastructure has been changing rapidly during the past years and in 2010 the Greek Parliament adopted a law for the creation of a National Geospatial Information Infrastructure. The specific law has to deal with two necessities of Greece: a) the establishment of harmonized practices and rules for collection, production, supply, management and disposal of geospatial data b) the requirement of conformity with INSPIRE that place a frame of technical specifications of interoperability in order to be effective the automated disposal of geospatial data.
Consequently, these recent developments will contribute to the increased use of geospatial data by any citizen, while at the same time it is argued that libraries have a vital role to play for the effectively use of them, as they have a long history in management and organization of knowledge.

C. Suggestions

A variety of limitations have thus far prevented Greek university libraries from achieving the same level of growth in their GIS services as other academic libraries abroad. However, participation in projects has provided a great step to experiment and engage in GIS activities and broaden awareness of the potential use of this tool to provide access and support digital data resources. Another important factor regarding the digital collection and the use of GIS that should be explored, especially after the successful evolution of HEAL-Link consortium is the possibility of partnerships among libraries and additional contacts with organizations engaged or interested in GIS. Finally, among the above suggestions for exploration further investigation is required to determine if a repository relevant to geographical or spatial information could be successful.

III. CONCLUSIONS

As libraries struggle to retain funding and adjust to changes in technology, GIS can be used in Greece as a marketing tool in getting people into the library and use library resources. Additionally, GIS provides a gateway to information that is often underused in the library setting like local and state data, demographic, environmental or agricultural data and generally in a broader range of disciplines. That’s why GIS field offers a great range of applications in Greek academic libraries and information services and this first investigation of current situation in Greek academic libraries raises issues to be further explored.

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