

FCS_WORD:

Conceptual and Technical Framework for the Collaborative Documentation, Management and Presentation of Cultural Statistics, Activities and Research on the Web

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Abstract. This paper is a preliminary report of the FCS_WORD project results and activities underway at the Department of Cultural Technology and Communication, University of the Aegean. FCS_WORD is an implementation of a Web publishing environment for cultural heritage research and documentation, based on open-source wiki software and integrated sets of collaborative authoring tools. Wiki server software allows users to freely create, edit and manage content contributions using any standard Web browser and operating system. FCS_WORD is applied to Category 0 (Cultural Heritage) Ongoing Research Data (ORD) within the Framework for Cultural Statistics (FCS) - Data for Greece. The concept of a coherent cultural statistical data framework for Greece has stemmed from the long-term classification work undertaken jointly by UNESCO and other United Nations bodies in developing the UNESCO FCS recommendation. The aim of the project is to explore and evaluate the ways in which academic, professional, and other user-participant communities can collaboratively document and interpret different sets of digital cultural resources (e.g. textual data and metadata, visual resources, spatial data, project reports), thus contributing to an ongoing, collective, multi-vocal and community-based process.

Keywords: collaborative authoring, web publishing, cultural statistics, digital data

1 Towards Collaborative Documentation and Research of Cultural Heritage Activities: the Case of Cultural Data and Statistics

The collection of statistical data -relevant to the needs of government, cultural and educational institutions, businesses, NGOs, and communities- on activities related to the cultural sectors has been an issue of growing interest during the past two decades (UNESCO 1980) (Eurostat 2000), raising some fundamental issues:

To provide definitions of "What is Culture?" and which domains this concept includes.

To construct a hierarchical and coherent classification of cultural data and statistics in categories and subcategories of cultural activities.

To ensure the international standardisation of classification efforts and allow for international comparative and collaborative work.

The concept of the Framework for Cultural Statistics (FCS) developed and published by UNESCO in 1986 (UNESCO Office of Statistics 1986), lists sectors of interest and highlights data needs for various stages of the collection process (culture cycle): creation, production, distribution, consumption, and preservation.

The UNESCO FCS nine categories are: Cultural Heritage, Printed Matter and Literature, Music, Performing Arts, Audio Media, Audiovisual Media, Socio-cultural Activities, Sports and Games, Environment and Nature. During the recent years many national and international initiatives have been based on adaptations of the Framework: New Zealand Framework for Cultural Statistics (Statistics New Zealand and Ministry of Cultural Affairs 1995), Australian Culture and Leisure Classifications (Australian Bureau of Statistics 2001), A Canadian Framework for Culture Statistics (Statistics Canada 2001), Regional Cultural Data Framework: a User's Guide for Researchers and Policymakers (DCMS 2002).

These initiatives answer the issues stated initially by outlining conceptual and technical definitions of the cultural sectors, proposing detailed classification schemata, maintaining mappings to the original UNESCO Framework hierarchy and standard classification systems (national/EU/international), and outlining best practice measures for comparative research (regional/national/international).

2 The Ongoing Research Data (ORD) of Cultural Statistics and Activities: Facing Specific Issues

In the case of ongoing cultural data and activities (e.g. news, updates and events, tickets and visitor statistics, raw research data, informal publications) there is a greater need for flexible and customisable data collection and management schemes, which could overcome conventional restrictions, such as:

Centrality. Since data sets (especially quantitative) should be adaptable and extensible within the guidelines of a general framework and under the supervision of central agencies, there is always a certain degree of dependency on national agencies (e.g. Ministry of Culture, National Statistical Service) and a lack of relevance of national data to a regional level.

Coverage. In most cases, documentation seems to cover only the data and activities of official and ‘inscribed’ institutions thus excluding ‘informal’ agents such as local communities and museums, NGOs, individual researchers or special interest groups, and reducing the visibility of linkages between different functions of the culture cycle which could allow qualitative data sets to demonstrate the social involvement of cultural activities.

Time. Analogue collection processes (e.g. printed surveys) are usually static, asynchronous, and lacking continuous and up-to-date monitoring capabilities through which quantitative and qualitative data sets could provide an ongoing evidence base on which to source short-term and future decisions.

Space. Conventional methods of data collection lack comparative, multi-layered and interactive spatial reference (both in geographic documentation and the visualised interface of published data). The use of customised map tools could enable comparative analysis on a spatial basis (e.g. demography, infrastructure) and instant publishing of geographically distributed data.

Communication. Conventional methods of data collection and read-only publishing follow a rigid investigator > publisher > viewer communication pattern. A collaborative methodology could facilitate the setup of less restrictive patterns, and expand the field of participation and contribution to all cultural heritage agents.

Transparency. In most publications of cultural data and statistics, primary source data is unavailable. A work-in-progress approach could ensure that all data can be examined and subjective interpretation work can be undertaken.

3 An FCS_WORD Overview

3.1 What FCS_WORD is.

A community-based process catalyst. FCS_WORD is proactive and participatory (an ad-hoc community of museums, institutions, researchers, NGOs, and non-expert audience), it encourages free thinking and interpretative positions, raises cultural sector awareness (attention economy based on publishing) and allows ‘free riding’.

A set of collaborative authoring tools. FCS_WORD encourages self-managed and intermediated contributions, enables a dynamic -synchronous- digital collection process, the integration of heterogeneous data sets (statistical, visual, spatially referenced), the capture of quantitative and qualitative data snapshots in time (statistical periods, document versioning), and data expansion into non-academic fields (enhancing the visibility of linkages).

A free and persistent solution. FCS_WORD is built using open-source software available through GNU and Apache licensing, which supports content persistent through consensus (...and backup).

3.2 What FCS_WORD is not.

A reference data collection standardised within the International Framework of Cultural Statistics. The role of Government Bodies and Public Institutions, such as the Ministry of Culture or the National Statistical Service, as intermediators to the community of web publishers and collaborating authors is critical.

A silver bullet. FCS_WORD reliability depends to a great extent on the scale of community participation and collaboration, as it addresses a web audience.

4 The FCS_WORD Toolkit

The current toolkit implementation comprises: the *fcsWordMap* tool, a set of *statistical analysis* tools, a set of *communication* tools, and a *workflow* suite.

The *fcsWordMap* tool (Fig. 1) allows location information related to ORD providers, such as Cultural Heritage institutions, to be passed to the community. The tool uses a set of interactive digital maps as a visual aid to the geographical position of each provider. ORD providers listed on *fcsWordMap* have an institution login and set of wiki pages with access to all FCS_WORD toolsets (Fig. 2).

ORD providers post ORD items to the community, organised as activity entries in FCS subcategories (Fig. 3). An ORD item can include *quantitative data* collected and processed using the statistical analysis toolset (Fig. 4), *qualitative data* obtained through individual and collective interpretation work supported by the communication toolset (using asynchronous and synchronous media including a *newsletter*, a *forum*, a *chat room*, *commentary* rights on every single wiki page), and all *documentation and management data* relevant to the ORD collection process organised using the workflow suite (Fig. 5).

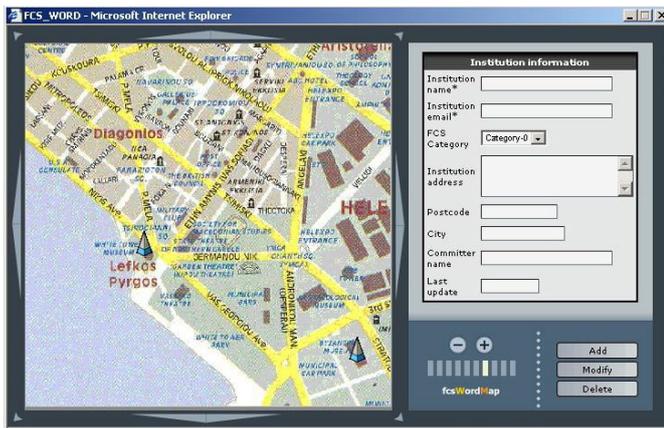


Fig. 1. The fcsWordMap tool

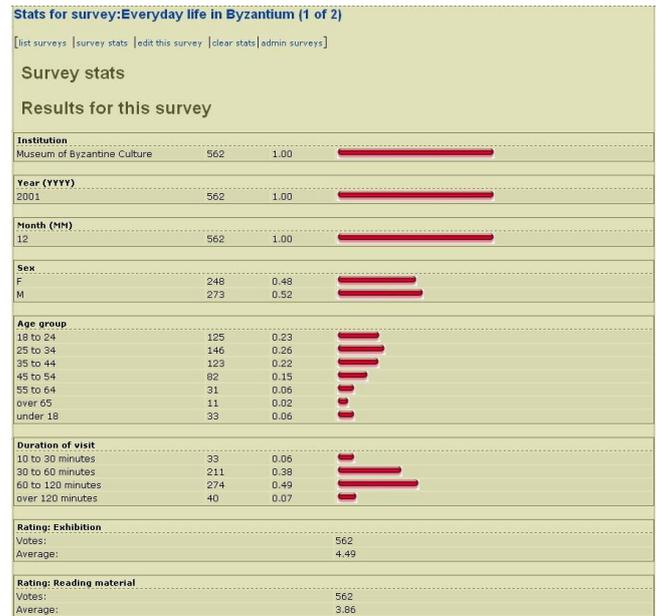


Fig. 4. The FCS_WORD statistical analysis toolset: a visitor questionnaire results overview

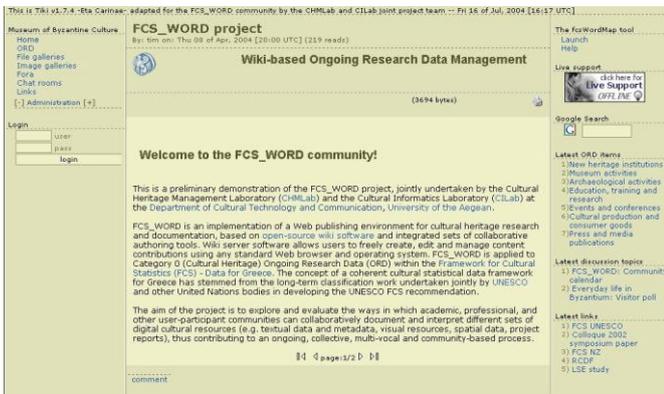


Fig. 2. The FCS_WORD home page

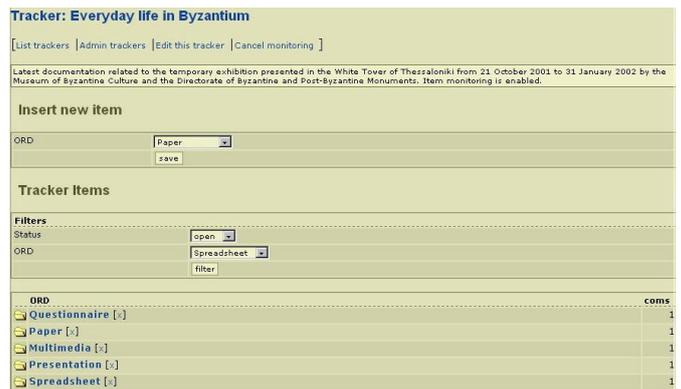


Fig. 5. The FCS_WORD workflow suite: a document version tracker

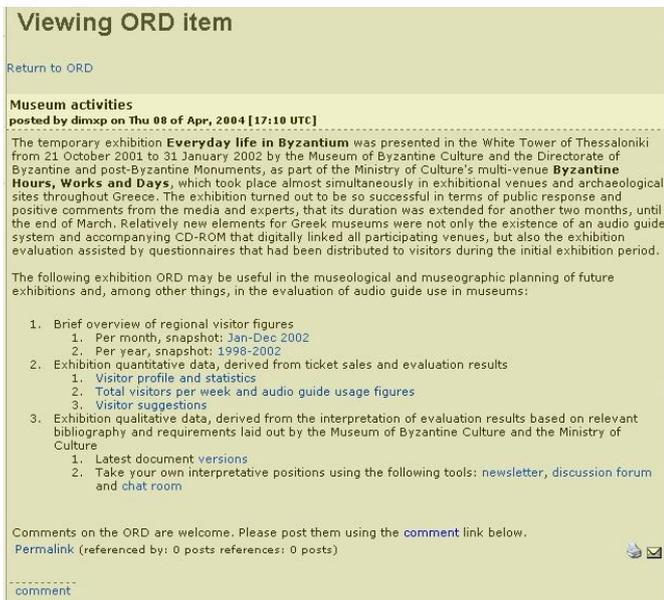


Fig. 3. The FCS_WORD ORD: Museum Activities ORD item

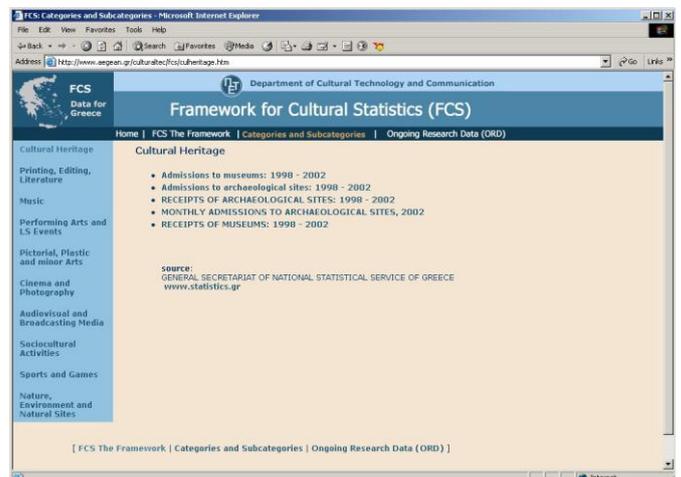


Fig. 6. FCS-Data for Greece: Cultural Heritage subcategory data

5 Concluding Remarks

FCS_WORD is a community-based project for the management and publishing of cultural heritage digital data, built using existing open-source software tools. Such an approach could only be of experimental nature since “*widespread collaborative work and research still rise as key future challenges rather than everyday realities*” (Papadopoulos and Mavrikas 2003). A community shared space, such as FCS_WORD, invests on the dynamics of real-time collaboration, and direct exchange and communication channels between different local users. The viability and reliability of this shared workspace lies on participation, responsibility and good practice. Central authorities and institutions could ensure data authenticity and security through appropriate filtering measures, without claiming the role of the sole content possessor or provider. Despite manageable risks and restrictions, cultural institutions and the academia could benefit from including a non-expert audience, local communities, professionals and individual users in the process of digital data collection and web publishing through such alternative, low-cost, participatory schemes.

In any case, building shared spaces for data management and collaborative authoring should not be limited to the adaptation and reuse of existing technology without a respective shift in theory and policy planning. Beyond the abilities that new media and available technology have to offer, community-based initiatives can only mature on the basis of institutional and/or national decentralised and pro-communicative policies for the management and publishing of cultural heritage digital data.

Acknowledgements

Preliminary data kindly provided by the Museum of Byzantine Culture. The fcsWordMap tool is directly derived from

phpWirelessMap (phpwirelessmap.sourceforge.net) developed by Nantes Wireless (<http://www.nantes-wireless.org/>). TikiWiki (<http://www.tikiwiki.org/>) requires a MySQL database (<http://www.mysql.com/>), PHP (<http://www.php.net/>) and a web server running PHP, such as the Apache HTTP server (<http://httpd.apache.org/>). All the above are free, open-source software products distributed under the GNU Lesser General Public License, the GNU General Public License, or the Apache License.

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