OPEN SOURCE SOFTWARE AND INFORMATION MANAGEMENT: THE CASE OF BMB ON LINE

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BMB – origin and instruments

BMB experience started in 1991 to collect the quotations of Beneventan manuscripts in the literature (Beneventan manuscripts are medieval books written in the South Italy national script). People involved in this project were helped in writing their bibliographical cards from a program developed at ICCU: BIBMAN.

The software was designed in the early '90s and worked on every IBM or compatible PC (from 8086 onwards) equipped with the operating system MS-DOS (no graphic operating system or mouse is needed with the BIBMAN software). Main features of the program are:

a) its **speed** because of its structure, it is in fact an executable compiled from texts written in Borland Turbo Pascal (ver. 6.0) and Microsoft Fortran (ver. 5.0);

b) the **relatively little use of the machine resources** and especially of the disk; the whole set of the programs requires 700 Kb of space and each 1000 bibliographic cards in the archive cover more or less one megabyte of the hard disk.
BMB – the Web site

When the School started up the collection of the bibliographic materials the program was sent to the contributors; they compiled the cards and sent them back to the School within the data files created by the program. All the data were at last collected in a unique data file and every year up to 2003 a volume was edited by the publisher Viella in Rome.

In 1997 in accordance with the publisher the BMB Web site was created with the following main aims:

a) to make faster and easier for the scholars the downloading of new data (approximately every month),

b) to encourage the creation of a virtual community that could find in the site services new opportunities for improving their studies.

With the time the following sections were created: an alphabetically ordered inventory of the shelfmarks of Beneventan manuscripts, the news concerning Beneventan manuscripts or materials never seen before, a selected list of links to the sites involved in the study of Beneventan manuscripts.
Some problems induced the School administrative staff to seriously consider the opportunity of a new instrument for the management of the bibliographic data concerning the Beneventan manuscripts and the carrying out of an Information System.

1. the evolution of the operating system the software lies on (Windows XP and NT don’t manage native MS-DOS programs like BIBMAN),

2. physical limits of the BIBMAN program; in 2001 it no more succeed in building a data base from the cards collected until that date,

3. the need for the management of the Web bibliographic information the old program didn’t manage at all.

A centralized system with a different access to information seemed to the author the best solution for the new BMB Information System. Linux was the operating system, Apache the Web server and PHP the dynamic module to be loaded from the Web server. In this way a dynamic Web site was built and the interaction with the Postgresql RDBMS (Relational Data Base Management System) was made possible by means of the SQL language.
The data base structure lies on six tables:

1) **utente**, contains the data of the contributors and of the scientific administrators;

2) **matbib**, contains the data of the materials to be analyzed and for each of them identifies the contributor it’s assigned to (NEW and OLD represent two fictitious users freely accessible);

3) **manosc** stores the data of the Beneventan manuscripts;

4) **schede** hosts the first part of the bibliographic cards (i.e. the location, the author/s, the title and every data concerning a publication quoting one or more manuscripts); four kinds of materials are identified: monographs, polygraphs, journals and Web references;

5) **schman** stores the manuscripts’ quotations;

6) **bacheca** is an electronic blackboard at all and makes easier the communication among the contributors
BMB – structure of the data base

The information flow is drafted in what follows:
BMB – queries of the IS

People can freely access bibliographic cards by means of five different query pages:

a) the first one asks for the author’s name and gives back him/her quotations,

b) the second and third ones ask for a manuscript (by means of its ID code or shelfmark) and give back all the quotations in the database for that manuscript,

c) the fourth one lets the user select one among the different contributors and gives back all the quotations made by that contributor,

d) the fifth and last one lets the user input one or more words or part of them concerning the title, the location, the collection etc. of a given publication and shows all the bibliographic records matching the query constraints and the corresponding quotations of Beneventan manuscripts.