# EAHIL Workshop 2005: "Implementation of quality systems and certification of biomedical libraries".

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The evaluation of electronic resources as strategic factor in decision making process: tools, critical points, feasible solutions

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# Impact of electronic resources in biomedical libraries

- The evolution from a traditional type towards a digital and virtual library leeds deep changes in:
  - Methods and tools used for gathering of statistical data
  - Analysis of performance results
  - Use of electronic resources

- Measurement and evaluation of library performances and services became more and more important in order to define strategies to be followed

- Wide availability of statistical data but not corresponding readability and easiness of use.

# Some critical points

1. Lack of homogeneity and consequent difficulty in comparing and merging data from different sources

2. Difficulties in understanding data due to their excessive quantity and use of a non-univocal or standardized terminology

# Point 1 - Lack of homogeneity

- Statistics originated from different sources are often not uniform and this can cause problems in overlapping and matching data
- The manner of splitting, identifying and aggregating data can differ depending to the system setting or features of platforms



- Results:
  - Impossibility to compare data supplied by different publishers or systems
  - Difficulties in adding data concerning the same resource reached through different channels (publisher web site, consortium mirror site, vendor web site)
- Possibility of distortion of data caused by a bad setting out of survey parameters or lack of corrective filters (for example: "double click")

# Point 2 - Difficulties in understanding data

- Difficulties in interpretation of data due to:
  - The way they are gathered and/or visualized
  - The scant attention in the use of a controlled terminology

- Results:
  - The same item is given a different definition in a number of reports and therefore not correctly grouped
  - Term used to identify an item does not enable a clear limitation of the reference frame, producing a duplication in counting
  - Outputs too much complex, difficult to read and consequently not useful

# The COUNTER Project

- **COUNTER** = **C**ounting **O**nline **U**sage of **N**etworked **E**lectronic **R**esources

- Is the evolution of results of a working group created in 2000 by representatives of JISCS and some publishers' associations (PA-Publisher Association and ALPSP-Association of Learned and Professional Society Publishers)

- Formally launched in March 2002

- Operating from December 2002 (Release 1 of Code of Practice)

- First goal: reports have been kept simple and readable in order to facilitate both the understanding of librarians and the data harvesting of publishers

# COUNTER highlights

- Code contains a controlled list of data elements and used terms

- Only intended usage are recorded and all accidental requests removed (ex.: "double clicks" on http link within 10 seconds or 30 seconds on a pdf link)

- Production of only 5 reports
    - 2 for electronic journals:
        - Number of successful full-text article request by month and journal (Journal Report 1)
        - Turnaways by month and journal (Journal Report 2)
    - 3 for the databases:
        - Total searches and sessions by month and database (Database Report 1)
        - Turnaways by month and database (Database Report 2)
        - Total searches and sessions by month and service (Database Report 3)

- All report must delivered at least monthly and provide for a download in an Excel compliant format

# COUNTER layout

IBM SurfAid Analytics - Microsoft Internet Explorer

File　Modifica　Visualizza　Preferiti　Strumenti　?　　　Indirizzo　Collegamenti

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COUNTER Journal Report 1 - Article Requests - Subscribed Usage by Month and Journal

**Measurement:** Subscribed Usage　　**Granularity:** Month and Journal

### COUNTER Journal Report 1: Number of Successful Full-Text Article Requests by Month and Journal

| Area of Analysis | | | Jan-05 | Feb-05 | Mar-05 | Apr-05 | Calendar YTD |
|---|---|---|---|---|---|---|---|
| Name | Print ISSN | Online ISSN | | | | | |
| Total for All Journals | | | 170 | 294 | 271 | 314 | 1049 |
| ACS Journal Archives | | | 42 | 49 | 53 | 82 | 226 |
| Biochemistry | 0006-2960 | 1520-4995 | 32 | 44 | 62 | 33 | 171 |
| Environmental Science & Technology | 0013-936x | 1520-5851 | 16 | 44 | 43 | 40 | 143 |
| Journal of Agricultural and Food Chemistry | 0021-8561 | 1520-5118 | 32 | 41 | 28 | 40 | 141 |
| Journal of Medicinal Chemistry | 0022-2623 | 1520-4804 | 8 | 29 | 24 | 30 | 91 |
| Chemical Reviews | 0009-2665 | 1520-6890 | 3 | 9 | 19 | 21 | 52 |
| Journal of the American Chemical Society | 0002-7863 | 1520-5126 | 10 | 13 | 4 | 13 | 40 |
| Analytical Chemistry | 0003-2700 | 1520-6882 | 5 | 21 | 6 | 6 | 38 |
| Chemical Research in Toxicology | 0893-228x | 1520-5010 | 4 | 10 | 10 | 6 | 30 |
| Journal of Chemical Information and Modeling | 1549-9596 | 1549-960X | 3 | 6 | 6 | 10 | 25 |
| Journal of Proteome Research | 1535-3893 | 1535-3907 | 2 | 7 | 4 | 4 | 17 |
| Biotechnology Progress | 8756-7938 | 1520-6033 | 4 | 2 | 1 | 4 | 11 |
| Bioconjugate Chemistry | 1043-1802 | 1520-4812 | 2 | 2 | 0 | 7 | 11 |
| Biomacromolecules | 1525-7797 | 1526-4602 | 1 | 2 | 2 | 5 | 10 |
| Journal of Organic Chemistry | 0022-3263 | 1520-6904 | 1 | 5 | 3 | 0 | 9 |
| Journal of Natural Products | 0163-3864 | 1520-6025 | 3 | 0 | 1 | 5 | 9 |
| Organic Letters | 1523-7060 | 1523-7052 | 1 | 2 | 0 | 1 | 4 |
| Accounts of Chemical Research | 0001-4842 | 1520-4898 | 0 | 3 | 0 | 1 | 4 |
| Chemistry of Materials | 0897-4756 | 1520-5002 | 0 | 0 | 0 | 4 | 4 |
| Journal of Combinatorial Chemistry | 1520-4766 | 1520-4774 | 0 | 3 | 0 | 0 | 3 |
| Langmuir | 0743-7463 | 1520-5827 | 0 | 0 | 2 | 1 | 3 |
| Inorganic Chemistry | 0020-1669 | 1520-510X | 0 | 1 | 1 | 0 | 2 |
| Organometallics | 0276-7333 | 1520-6041 | 0 | 0 | 1 | 0 | 1 |
| Journal of Physical Chemistry A | 1089-5639 | 1520-5215 | 0 | 0 | 1 | 0 | 1 |
| Organic Process Research & Development | 1083-6160 | 1520-586X | 1 | 0 | 0 | 0 | 1 |
| Journal of Physical Chemistry B | 1089-5647 | 1520-5207 | 0 | 0 | 0 | 1 | 1 |
| Journal of Chemical Theory and Computation | 1549-9618 | 1549-9626 | 0 | 1 | 0 | 0 | 1 |
| Industrial & Engineering Chemistry Research | 0888-5885 | 1520-5045 | 0 | 0 | 0 | 0 | 0 |
| Macromolecules | 0024-9297 | 1520-5835 | 0 | 0 | 0 | 0 | 0 |
| Nano Letters | 1530-6984 | 1530-6992 | 0 | 0 | 0 | 0 | 0 |
| Molecular Pharmaceutics | 1543-8384 | 1543-8392 | 0 | 0 | 0 | 0 | 0 |
| Journal of Chemical & Engineering Data | 0021-9568 | 1520-5134 | 0 | 0 | 0 | 0 | 0 |
| Energy & Fuels | 0887-0624 | 1520-5029 | 0 | 0 | 0 | 0 | 0 |
| Crystal Growth & Design | 1528-7483 | 1528-7505 | 0 | 0 | 0 | 0 | 0 |

start　　Microsoft PowerPoint ...　　IBM SurfAid Analytics...　　IT　13.09

# COUNTER evolution

- In 2004 more than 30 publishers and aggregators became COUNTER compliant (such as Elsevier, Springer, Wiley, Nature, Ebsco and so on) and the product is on the way to becoming a standard "de facto"

  But...

  There are still some critical points:
  - Not all vendors products or services are or could be COUNTER compliant and this entail to assign the compatibility level to the single product rather than to the vendor/publisher as a whole
  - Some COUNTER compliant publishers have had problems in adapting statistics to requirements (ex.: Blackwell in 2004)
  - Respecting technical requirements is not always sufficient to ensure the full comparability of data and readability of contents (ex.: Kluwer)

- Release 2 of Code of Practice: draft published in April 2005 and final issue expected in January 2006

# Not only COUNTER

- COUNTER is not the only initiative that can support managing and evaluating activities:

    - E-Metrics Project (2003-2004) by ARL
    - LibQUAL+ Programme by ARL
    - Guidelines for statistical measures of usage of web-based resources (2001) by ICOLC (International Coalition of Library Consortia)

# The ISO Standards

- Two main standards (and one Technical Report) concerning statistics and performance indicators:

    - N. 2789 (Information and Documentation – International Library Statistics) published in 2003 by ISO TC46/SC8
    - N. 11620 (Information and Documentation – Library Performance Indicators) published in 1998 by ISO TC46/SC8
    - Technical Report TR 20983 – Performance Indicators for electronic library services (2003)

# ISO 2789

- Third edition published in 2003 (already in review phase)
- Goals:
  - "to ensure conformity between countries for those statistical measures that are frequently used"
  - "to encourage good practice in the use of statistics for the management of library and information services"
- Divided in 6 parts, the most important are the third (Terms and Definitions) and the sixth (Collecting Statistical Data)
- Annex concerning "Measuring the use of electronic library services" tackles relevant aspects such as:
  - Issues of measuring the electronic collection
  - Issues of measuring use
  - Use of electronic services

# ISO 11620

- It sets criteria for the evaluation of efficiency and effectiveness of library activities and services

- It allows to analyse not only the quantity but also the quality of provided services

- Two basic rules in the application of this standards:

  - "It is important to understand that not all established performance indicators are useful to all libraries" and "the list of indicators... is best seen as a menu of possible performance indicators that could be used in a range of library settings"

  - "libraries... will need to decide which indicators are most appropriate to a particular situation. This decision must be made in the light of the mission, goals and objectives of the library"

# ISO 11620

- 32 Indicators divided into three different categories:
    - User Perception (1 indicator)
    - Public Services (26 indicators)
    - Technical Services (5 indicators)
- In the Annex B are illustrated for each indicator objectives, scopes definitions and method of application and computation
- Amendment of 2003 has added 5 more indicators

# Conclusions

- The use of standards may have a great importance in evaluation processes but the single use of these tools is not sufficient and must be integrated by other supports (surveys, studies on user features, etc.)

- Statistical analysis provides a valid aid in decision making process but they are not the only element to consider in this activity

- Other elements beyond the automatic relation cost/benefits will take on importance also:

    - A strong institutional interest in some research lines
    - The need to preserve integrity of library collections
    - The duty to maintain in a consortium context information resources of common use

- Open Archives: an unavoidable landmark for the future

**Thank you for your attention**

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