History and Origin of Information ScienceS in Croatia

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Agenda

• 0 part: Terminological clarifications
• I part: History and origin of IS’s in Croatia
  – Introduction
  – History and origin of IS’s in Croatia
• II part: Bibliometric analysis of (two) leading journals
• III part: Conclusion
TERMINOLOGY
Terminology

- Informatology = Informatics = Information Science
- Information Science
FIRST PART

HISTORY AND ORIGIN OF IS’S IN CROATIA
Introduction

• two key factors for the occurrence and development of IS’S in Croatia:
  – evolved from traditional practices of information institutions, as well as influences from other subject areas
  – Information Science as a new scientific discipline and a professional

• starting from the so-called “Zagreb School” in the 1960’s
Institutionalization of IS’S

1) professional associations,
2) central institutions, and
3) academic institutions

✓ Scientific research, professional activities, scholarly communication & publishing, development of educational programs
Addendum: before LIDA
In memoriam Bozo Tezak

- There was a series of international conferences with similar themes in Dubrovnik starting in mid 1970’s
- Organized by **BOZO TEZAK**
  - a gentlemen and great man
- Some faces from 1977 & 1979
  - Thanks to Bob Hayes
Božo Težak’s contribution to the development of IS’S

- founded the post-graduate study of documentation and special librarianship in 1961,
- founded the Center for Postgraduate the Study of Librarianship, Documentation and Information Sciences in 1964,
- established the Referal Center at the UoZg in 1976,
- started publishing a new journal INFORMATOLOGIA (YUGOSLAVICA) in 1969.
From Our Readers...

(Editor’s Note: It is hoped that this section will become an interesting and spirited feature of JEL as we cordially invite letters from our readers.)

Pauline A. Atherton, Associate Director, Documentation Research Project, American Institute of Physics, describes a new university course called “Informatology” as follows:

“For several years, courses in Technical Information have been taught in Sweden, but in 1964 something new was tried. A course in Informatology was started at the Royal University of Technology (KTH) in Stockholm. The title of this 100-hour course has its origins in Sweden. As far as Bjorn V. Tell, Librarian at KTH, knows, informatology was first mentioned in a lecture given on March 8, 1962. The intention was to avoid the term, documentation, which connotes attention to documents. Now that the emphasis in our field is on information, it was considered appropriate to coin a term with that connotation.

“The term informatology denotes that work and research within the field of information processing which combines intuitive and algorithmic procedures where computers are used as a supplement to the human intellect. Treatment of subsets of intellectual activities which do not depend on intuition are in the domain of the informa-
IS(&C)’S today

5.04. Information and Communication Sciences - archipelologos

- museology
- archivistics & documentation
- lexicography & encyclopedistics
- librarianship
- information systems & informatology
- communicology
- public relations
- information & programming engineering
- mass media
- journalism
- organization & informatics
"The ignoring in modern English-language information studies of what had been, internationally, mainstream literature on information retrieval is remarkable and unfortunate example of intellectual discontinuity."

SECOND PART

BIBLIOMETRIC ANALYSIS OF (TWO) LEADING CROATIAN IS’S’S JOURNALS
Assumption

• that the research interest of a subject area in the nature of its own communication (eco)system is a sign of its maturity,
• that the maturity of a subject area can be determined by its scholarly publications,
• that the level of development and status of a scientific discipline can be determined by following the publishing activities,
• that the communication and exchange of information in information science, like in any other discipline, depends to a great extend on journals as (still) the main channel of formal scholarly communication.

Saracevic & Rees, 1968; Borgman, 1990, Saracevic, 1992
Methodology: Data gathering & tools used

tagged2isi, BibExcel, HistCite
### Methodology: Sample

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<tr>
<td>• 47 volumes, 71 issues, 2.501 submissions, 13.741 pages</td>
<td>• 37 volumes, 70 issues, 1.093 works, 8.317 pages</td>
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<td>• <strong>129</strong> (16%) articles (1950-1968.)</td>
<td>• <strong>710</strong> (65%) articles (1969-2005.)</td>
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<td>• 1.505 (37%) stranica</td>
<td>• 5.443 (65%) pg.</td>
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<td>• <strong>421</strong> (24%) articles (1969-2005)</td>
<td>• citation (reference) analysis</td>
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<td>• 4.955 (50%) pg.</td>
<td>• <strong>298</strong> (42%) citing articles</td>
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<td>• citation (reference) analysis</td>
<td>• <strong>3.435</strong> references</td>
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<tr>
<td>• <strong>196</strong> (36%) citing articles</td>
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Key findings & discussion

• bibliometric profile of two analyzed journals
  • significant differences between the two journals regarding their editing and formatting features
  • due to irregularity and delays in publication the no. of published volumes significantly lower than expected (37% and 47.3%)
  • except for the transfer of research results, they’ve served as a medium for transfer of news & information to the wider professional community (22% work in Vjesnik and 65% in information science) → some positive trends in the period 1999/2005
  • ¼ of papers in the Vjesnik (CLH), compared with 11.1% of papers in Informatologija, not specifying any bibliographic references
  • in Vjesnik on average 12.8 references per paper, while 11.5 in Informatologija
  • during the last period 1998./2005. in Vjesnik dominated professional and review articles, and professional and original research papers in Informatologija
  • 90% papers in Vjesnik published in Croatian, in Informatologija almost 1/3 of papers published in English
  • share of foreign authors in Vjesnik 19.9%, and 41.3% in Informatologija
  • difference in editorial policies did not affect the inclusion in selective (online) databases
Key findings & discussion (cont)

• author/s/hip profile, productivity and collaboration
  • evidence of increase of the no. of authors over time
  • 4/5 of authors published one or two papers
  • 4/5 of Vjesnik authors are from Croatia, 2/3 from Zagreb, 2/3 of Informatologia authors are from Croatia, one third from Zagreb
  • 4/5 of Vjesnik author originated out the library community, more than 2/3 of Informatologia authors are affiliated with an academic institution of which 54% from an academic institutions outside the field of I&CS
  • 13% of Vjesnik authors are affiliated with an academic institution in the field of I&CS, 16% in Informatologia
  • almost half of the papers in Vjesnik goes to NUL, Dept. of IS’s and Zagreb Public Libraries; 1/5 of Informatologia papers published by the Referal Center and the Faculty of Education in Maribor (Slovenia)
  • dominant role of the female authors from 1980s in Vjesnik, 2/3 of male authors in Informatologia
  • 85%; of single-authored papers in Vjesnik; 71% in Informatologia
Key findings & discussion (cont)

• content analysis
  • *Vjesnik* is a monodisciplinary journal with more than 2/3 of papers belonging to one of the four common (core) IS’s areas; the content published in *Informatologia* speaks in favor of a interdisciplinary journal (only two categories belonging to the wider field of IS&C’s attracted more than 10% of papers)
  • 0.2% of the theoretical and methodological papers in *Vjesnik*, 1.1% in *Informatologia*
  • only 2.2% of papers in *Vjesnik* directed towards scientific assasement of I&CS’s, 5.9% of papers in *Informatologia*
  • 0.5% in Vjesnik papers dealing with the problems of information and communication technologies; ICT in *Informatologia* is represented by 18.7% of papers
Key findings & discussion (cont)

• profile of the intelectual base – reference analysis
  • share of scholary journals in Vjesnik references is 26.8%, 26.5% in Informatologija
  • reference lists of Vjesnika & Informatologia are still dominated different types of monographic publications
  • 1/5 of references in Vjesnik other serial publications, government/official publications and standards/guidelines; 1/10 in Informatologija
  • The average age of references in Vjesnik was 23.3 years, 10.7 years in Informatologia
  • Price’s index of references in Vjesnik was 34.6%, 46.3% in Informatologia
  • 40,6% of cited references in Vjesnik are in Croatian, 1/5 in Informatologia
  • Vjesnik’s development mostly influenced by the Central Europena literature (55,7%); Informatologia shows equal influce of Anglo-American and CE literature
  • 3/4 of references in Vjesnik represent disciplinary self-citations; 1/3 in Informatologia
  • 1/5 of references in Vjesnik represent journal self-citations; 1/10 in Informatologia
THIRD PART

CONCLUSION
• acquired results speak in favor of unfinished process of social and cognitive development of information sciences in Croatia
• voluntary effort of members of editorial boards insufficient trained and/or dedicated to perform complex editorial tasks, and in a relatively modest authors and readers base, as well as lack of financial support by government bodies who were takeing care of other Croatian scholarly and professional journals
• relatively weak presence in bibliographic/citation indexes
• overemphasized practical orientation of the community gathered around the Vjesnik,
• both communities were not enough methodologically oriented; exaggerated historicity of the field of practies as opposed to the strongly expressed ahistoricity of the scientific discipline
• opening the “door” to papers from other areas is a major challenge for editors and reviewers - difficult task of balancing the opening of the journal to external influences, while also preserving the disciplinary boundaries of information and communication sciences
• low proportion of authors from academic institutions with programs in field information and communication sciences → contrary to global trends
• transformation of the Referral Center at the Institute of Information Sciences and later HIDRA, the community has lost an important research center
• low level of cross-authorship \((28/846 = 3.3\%)\) speaks in favor of polarization of research groups in the field I&CS’s primary focused on the immediate transmission of information to channels representing narrow scientific branches
• low level of cooperation and co-publication and technical co-operation with the growth of multiauthored works from the mid-1980s → gradual adaptation and adoption of modern achievements of science and scientific research
• low level of cooperation with some evidence of growth of multiauthored papers from the mid-1980s → gradual adaptation to the modern science and scientific research standards
• completely contradictory indicators of the degree of disciplinary permeation → high degree of self-sufficiency in the case of Vjesnik, as opposed to a high degree of intellectual input from other disciplines in case of Informatologija
• reference analysis didn’t determine signs of consensus regarding core literature in the field from I&CS’s
• no significant overlap between the lists of the most productive and most cited authors in both journals
REFERENCES
• ...