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Structured abstracts as a way of ordering information about publication contents and improving search facilities

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Presentation structure

- inspiration,
- abstract in ISO, NISO standards and EASE guidelines,
- characteristics of structured abstracts,
- presence of structured abstracts in journals,
- searching in structured abstracts,
- conclusions.

Inspiration

- spring conference in Warsaw: Information Science in the time of change,
- the aim of investigation: determine what part of research results in information science is implemented and who can benefit from them,
- the research study was carried out on 152 articles from three information science journals: “Journal of documentation”, “Online information review” and “Journal of knowledge management”,
- performing this research was possible without peeking in full texts of articles only thanks to structured abstracts present in all Emerald Publishing journals,
- /results: Papers on implementation made only 6,6% of the whole – one article per 15/

Example of Emerald abstract

Turning weakness into strength: strategies for future LIS

Document Information:

Title: Turning weakness into strength: strategies for future LIS

Author(s): [Jan Nolin](#), (Swedish School of Library and Information Science, University of Borås, Borås, Sweden), [Fredrik Åström](#), (Lund University Libraries, Lund, Sweden and University of Technology Sydney, Sydney, Australia)

Citation: Jan Nolin, Fredrik Åström, (2010) "Turning weakness into strength: strategies for future LIS", Journal of Documentation, Vol. 66 Iss: 1, pp.7 - 27

Keywords: [Information science](#), [Research work](#), [Uncertainty management](#)

Article type: Viewpoint

DOI: [10.1108/00220411011016344](https://doi.org/10.1108/00220411011016344) (Permanent URL)

Publisher: Emerald Group Publishing Limited

Abstract:

Purpose – LIS has been described as a fragmented field in crisis, with an increased competition from other fields; and lacking in development of theories. The purpose of this paper is to articulate a strategy in which the perceived weakness can be seen as a source of strength.

Design/methodology/approach – The text builds mostly on reflections on meta-theoretical and science-organisation literature. Ten distinct problems for the research field are identified and discussed in order to provide a viable strategy for the future.

Findings – While it is common to suggest a convergent movement toward the idealised characteristics of the strong research discipline as a recipe against fragmentation, a strong convergent movement is suggested that feeds off the fragmented character of the field. What is commonly perceived as a weakness, the multidimensional character of the field, can be translated into a strategic resource.

Originality/value – The paper provides a fresh perspective on the strategic situation of LIS.

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Complete structure of Emerald abstract

Purpose

What are the reason(s) for writing the paper or the aims of the research?

Design/methodology/approach

How are the objectives achieved? Include the main method(s) used for the research. What is the approach to the topic and what is the theoretical or subject scope of the paper?

Findings

What was found in the course of the work? This will refer to analysis, discussion, or results.

Research limitations/implications (if applicable)

If research is reported on in the paper this section must be completed and should include suggestions for future research and any identified limitations in the research process.

Practical implications (if applicable)

What outcomes and implications for practice, applications and consequences are identified? How will the research impact upon the business or enterprise? What changes to practice should be made as a result of this research? What is the commercial or economic impact? Not all papers will have practical implications.

Social implications (if applicable)

What will be the impact on society of this research? How will it influence public attitudes? How will it influence (corporate) social responsibility or environmental issues? How could it inform public or industry policy? How might it affect quality of life? Not all papers will have social implications.

Originality/value

What is new in the paper? State the value of the paper and to whom.

Abstract in international standard (ISO)

- ISO 214:1976 „Documentation - Abstracts for publications and documentation” (in force),
- concise - 4 pages,
- general and universal,
- suggested abstract length - less than 250 words,
- no typology of abstracts,
- abstract should consist of one paragraph with exception of very long texts,
- content elements:
 - purpose,
 - methodology,
 - results,
 - conclusion.

Abstract in American standard (NISO)

- ANSI/NISO Z39.14-1997 „Guidelines for Abstracts”,
- precise and extensive – 15 pages with examples and bibliogr.
- 2 types of abstracts:
 - informative (surveys),
 - indicative (editorials, essays, books, conf. proceedings).
- separately appears: „structured abstract - abstract that is arranged according to prescribed headings”,
- one paragraph with exception of structured abstracts,
- abstract length - less than 250 words,
- content elements for informative abstracts:
 - purpose,
 - methodology,
 - results,
 - conclusion.

EASE Guidelines for Authors and Translators of Scientific Articles to be Published in English

- European Association of Science Editors (EASE)
 - www.ease.org.uk
 - since 1982,
 - concentrates on improving scientific communication,
 - journal, guides, courses, conferences.
- the guidelines were translated into 13 languages,
- last update – June 2011,
- abstract guidelines are put separately in appendix,
- 2 types of abstracts: informative and indicative,
- abstract consist of one paragraph,
- required elements: **background**, objectives, methods, results, conclusions.

Recommendations summary

- 2 types of abstracts: informative and indicative,
- abstract length: up to 250 words,
- one paragraph with exception of structured abstracts,
- content elements:
 - (background)
 - purpose,
 - methodology,
 - results,
 - conclusion.
- the standards don't specify areas of application, so they should work for exact sciences as well as for humanities,
- except for one remark in NISO they describe traditional abstracts.

Structured abstracts (1)

- specific kind of informative abstract, utilizing distinct, labeled sections (e.g., Background, Purpose, Methods, Results, Conclusions) to provide clear, detailed and consistently presented information to readers,
- the headings determine clear structure of abstract contents what facilitates perception and improve searching speed,
- labeled elements used in structured abstracts agree with requirements set in quoted standards (ISO, NISO, EASE),
- headings force authors to prepare abstracts in a standardized way, which guarantee that no important element will miss.

Structured abstracts (2)

- structured abstracts were first introduced into medical journals in the mid 1980s,
- many researches were conducted in the field of medicine that proved higher efficiency of structured abstracts over traditional ones,
- similar investigations were led in social and technical sciences,
- particularly the researches proved that structured abstracts in comparison do traditional:
 - contain more information,
 - the information is of higher quality,
 - are easier to read,
 - let quicker search its contents.

Structured abstracts (3)

- disadvantages:
 - longer compared to traditional ones,
 - harder to prepare and more time-consuming,
 - not good for conference submission unless the author has the paper/presentation already written,
 - not good where indicative abstracts should be used instead (editorials, essays, books, reports),
- even though structured abstracts take more space than traditional they are faster and easier to read because readers don't have to read all sections,
- if results and conclusions are properly described readers often don't have to look into full text of article.

Abstracts in Polish scientific journals

- Arianta database was used to perform analysis (Polish Scientific and Professional Electronic Journals),
- 300 journals were checked out of 1025 meeting given criteria (online access to abstracts and assigned score by Ministry of Science),
- 50% of examined journals are published entirely in English,
- 32 out of 300 (11%) used structured abstracts,
 - 24 per 32 (75%) represented medicine,
 - 4 per 32 (12.5%) – physical education,
 - 2 per 32 (6%) – psychology,
 - 1 per 32 (3%) – zoology,
 - 1 per 32 (3%) – materials science.

Abstracts in guidelines for authors (1)

- 221 out of 300 (74%) journals published guidelines for authors on the website (could exist in paper edition),
- only 32% (71 per 221) of guidelines specified content requirements for abstracts, the rest only set formal expectations (length, placement, language),
- there were no suggestions to use standards/EASE,
- guidelines were not always followed by authors,
- surprisingly in medical journals authors used structured abstracts even when there were no recommendations to do so,
- according to many guidelines an abstract should be brief, clear and comprehensible.


Abstracts in guidelines for authors (2)

- guidelines for traditional abstracts that formulate expectations about contents require from authors the same elements that are present in structured abstracts (purpose, methods, ...),
 - sometimes requirements are put in question form, for instance: What are the main findings in relation to the research aims/questions?
 - most lapidary expression of abstract content expectations was:
 - what was investigated and why?
 - how was it investigated?
 - what was found and what results from it?
- / Surgery of the Motor Systems and Polish Orthopedics/


Electronic journals in EmeraldInsight web service

- Emerald Group Publishing Limited – independent publisher of journals and books in business and management, LIS, social sciences, engineering, linguistics and audiology,
- over 200 journals, 300 books and 200 book series served in different packages to over 4500 customers, including leading universities and business schools, government departments,
- in 2005 Emerald introduced structured abstracts to all its journals,
- abstracts from all the journals are available at no cost.

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Journals from LIS field

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Title
Asian Libraries
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Collection Building
Electronic Library, The
Electronic Resources Review
Interlending & Document Supply
International Journal on Grey Literature
Journal of Documentation
Librarian Career Development
Library Consortium Management: An International Journal
Library Hi Tech
Library Hi Tech News
Library Management
Library Review
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International Journal of Pervasive Computing and Communications
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Journal of Information, Communication and Ethics in Society
Journal of Intellectual Capital
Journal of Knowledge Management
Journal of Systems and Information Technology
Kybernetes
Logistics Information Management
Records Management Journal
VINE

Searching in Emerald structured abstracts (1)

- the use of structured abstracts in practice let quickly appreciate their searching and informative value,
- among sections available in Emerald abstracts the most useful for searching are Purpose and Results,
- Purpose
 - often tells more than article's title which has to sound well and attract audience,
 - a term found in this section has more informative surroundings,
- Results
 - are quintessence of research,
 - a term found here may be surrounded by facts determined in the research and related to it.

Searching in Emerald structured abstracts (2)

- the aim of the second research was to check if searching within Purpose and Results sections is the same effective as within title of the article (returns at least similar number number of articles),
- to find the answer advanced search form was used,
- abstract from all available research articles were searched since 2005 (when structured abstracts were introduced in Emerald),
- terms used: dublin core, marc 21, library 2.0, e-book, expert system, digitization, google scholar, taxonomies, opac,
- FireFox helped to support highlighting of terms found which is not available in Emerald interface.

Advanced search form

[Home](#) > Advanced search **Journals**

Advanced search

Search in: **All** Journals Books Bibliographic Databases Case Studies Site Pages

Search for

dublin core in Abstract

Match: ☐ All ☐ Any ☒ Phrase

OR dublin core in Article title

Match: ☐ All ☐ Any ☒ Phrase

AND in All fields

Match: ☐ All ☐ Any ☒ Phrase

Limit the search to:

Items published between **2005** and All

Article type **Research paper**

Include in results: EarlyCite Articles ☒ Emerald Backfiles ☒

Within:

All content ☒ My subscribed content ☐

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1



International Conference on **Dublin Core** and Metadata Applications (DC-2008) in Berlin

Type: Research paper

Author(s): Thomas Baker

Source: [Library Hi Tech News](#) Volume: 25 [Issue: 2/3](#) 2008

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Abstract


Purpose – The International Conference on **Dublin Core** and Metadata Applications (DC-2008) is being held this year in Berlin. The purpose of this paper is to describe the evolution of the **Dublin Core** effort from an initial focus on “core” elements for resource description towards a more comprehensive framework for developing application profiles that use multiple vocabularies on basis of the W3C resource description framework (RDF) model.

Design/methodology/approach – A **Dublin Core** application profile describes a metadata application, from functional requirements, via a domain model of entities to be described, to the formal specification of constraints on the basis of the DCMI Abstract Model.

Findings – **Dublin Core** application profiles are designed to be interoperable on the basis of W3C’s RDF model and principles of Web architecture, such as consistent use of URIs, in order to facilitate the integration of metadata from multiple sources – a common requirement in today’s Web.

Originality/value – The paper offers insights into the evolution of the **Dublin Core**.

2



The impact of metadata in web resources discovering

Type: Research paper

Author(s): Khaled A.F. Mohamed

Source: [Online Information Review](#) Volume: 30 [Issue: 2](#) 2006

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Abstract

Purpose – To explore the impact of using metadata in finding and ranking web pages through search engines.

Znajdź: dublin core

[Następne](#) [Poprzedni](#) [Podświetl](#) [Rozróżniaj wielkość liter](#)

Summary of results

- within Purpose and Results searched term often appeared several times but was counted once

Term	Number of articles	in Title	in Purpose	in Results
dublin core	8	2	5	5
marc 21	4	3	2	4
library 2.0	9	3	4	6
e-book	29	24	25	24
expert system	26	6	11	9
digitization	21	7	11	12
google scholar	18	8	8	10
opac	24	11	15	13

- the numbers speak for themselves.

Conclusions (1)

- regardless of great importance for scientific communication abstracts are still underrated,
- recommendations found in guidelines for authors are often just a wishful thinking,
- splitting abstract into labeled sections is the best way of obtaining expected content,
- it is not easy to persuade publishers to introduce structured abstracts,
- for journals that have problems with getting new papers, introducing structured abstracts could frighten away many potential authors, who could have problems with filling all the sections,
- the solution of the problem could be in leaving an alternative – an indicative abstract.

Conclusions (2)

- this solution would be necessary in humanistic journals,
- however structured abstracts are not reserved only for exact sciences what is well proved in Emerald journals (e.g. LIS),
- only in medical science and related sciences structured abstracts appear frequently,
- it is worth using structured abstract for ourselves because they not only improve quality of abstract but can have positive impact on the whole article,
- to make the most of the abstract, the headings should be deeply considered before starting writing, on the stage of conceptual work,
- structured abstracts are perfect for young scientists,
- each speaker of this conference can appreciate value of structured abstract trying to convert to this form the one prepared in traditional way and comparing both in the end.

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Thank you for attention

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