



A systematic study of metrics and evidence suitable for institutions which operate in areas of high interdisciplinarity

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INTRODUCTION

Funded by the COST Action TD1210 KNOWeSCAPE, our short term scientific mission to The Netherlands, from 9th to 17th of July, aimed to study metrics and evidence suitable for institutions which operate in areas of high interdisciplinarity at Data Archiving and Networking Services (DANS).

Many scientific organisations publish annually or for longer period reports, in order to present the research that they have done in various scientific fields. Furthermore, these publications indicate the progress that has done in a specific period of time and how the organisations have reached their goals. These reports could namely be annual reports, activity reports, business and/or scientific reports, etc.

OBJECTIVES

The main objective of this study was to categorise and analyse the data of six reports published by different scientific organisations, all collaborators of DANS in The Netherlands, Switzerland and Germany.

METHODOLOGY

The methodology comprised desktop research, brainstorming sessions with the team members at DANS and the supervisors of the study both in The Netherlands and Greece, observation and empirical analysis using the classification scheme UDC. The scientific and business reports of six organisations which take action in the same interdisciplinary environment categorised:

- by **time**
- by **place**
- by **institutional type** and
- by **the type of each report** (business or scientific)

ANALYSIS

Our work included the following steps:

- We started by having a look to all reports and
- following by having a search in the web to find elements for the mission and organisation of institutes that published them.
- We also searched for authors whose articles were included in the reports.
- After that, we decided that we needed to write down some extra elements referred to the topics of the reports in order to identify specific scientific field(s) and define the structure of our categorisation based on UDC scheme, initially by topic. For this purpose, we searched the contents of each report, the title and the summary of each article looking for key-words that revealed the topic. This was the most time-consuming process of our entire try due to print format of reports.
- After we have defined the topics, we mapped the topics of the scientific fields of the reports to the main categories on UDC classification system. Furthermore, we categorized them by time, by place, by institutional type and by the type of each report (business or scientific).

Concerning research topics, we can notice that they cover interdisciplinary fields. We used the UDC system to classify them in general categories. So, in the table below we can see these categories by numeric coding where:

- 0 refers to Science and Knowledge. Organisation. Computer Science
- 1 refers to Philosophy. Psychology.
- 2 refers to Religion. Theology.
- 3 refers to Social Sciences.
- 5 refers to Mathematics. Natural Sciences.
- 6 refers to Applied Sciences. Medicine. Technology.
- 7 refers to The Arts. Recreation. Entertainment. Sport.
- 8 refers to Language. Linguistics. Literature.
- 9 refers to Geography. Biography. History.

➤ The table after analysis of the reports:

Title of Report	Topic/UDC	Reporting Period	Publication Year	Report Type	Type of Organisation	Geographic Origin
Annual Report 2015	0,1,2,3,5,6,7,8,9	2015	2016	Business	Service Oriented Organisation	The Netherlands
Presse	5,6	25 years (1991-2016)	2015	Business	Research Institution	Germany
Fostering Interdisciplinarity	0,1,2,3,7,8,9	5 years (2011-2016)	2016?	Scientific	Research Institution	The Netherlands
Interfacing Research Practices	0,1,2,3,7,8,9	3 years (2006-2009)	2010	Scientific	Service Oriented Organisation	The Netherlands
Chair of Systems design	0,3	10 years (2004-2014)	2014	Scientific	University	Switzerland
Scientific Report 2013 Workshops	0,5	2013	2014	Scientific	Service Oriented Organisation	The Netherlands

CONCLUSIONS

The classification of reports from different organisations and countries, into a systematic way was a really interesting endeavour, especially why they cover various periods and scientific disciplines and the elements allow us to make useful comparisons between research production of countries .

We thought that will be interesting to survey how the production of scientific knowledge interconnect the academic institutions with industries to create more efficient products which will be certificated. So, the research acquires a practical scope and the industries obtain a strong ally and useful scientific tools for their healthy development.

In addition, the publication of scientific or business reports serves one more very important function. In these reports, since the funded research projects or the results of surveys are published, which many times fulfilled by EU or private sector, the need for transparency is answered. The sponsors can see the results of their investment, provided benefits in the whole community.

FURTHER STUDY

We suggest a further study of scientific or business reports which many of them are grey bibliography, so that information specialists categorise and document them by a systematic manner, deposit them in institutional repositories and make them public as open access documents. This step will allow information specialists to deal with this type of information and analyse them by interesting visualisations. A visualised analysis will easily reveal connections among research institutes and business, funded projects and interdisciplinary fields.

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