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CHANGES IN LITHUANIAN RESEARCH JOURNAL PUBLISHING IN 2009–2010

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Introduction

As it is universally recognized, the objective of scholarly publishing — as an integral part of scholarly communication — is to report on a delivered scientific research and give it as speedy and widespread publicity as possible. Thus, the language in which the article is issued and competent electronic publishing play as important role in assurance of recognition, visibility, global dissemination and citation as articles authored by the best scholars and referencing in databases, including the most prestigious ones.

It should be noted that prior to expansion of the Thomson Reuters, a number of journals were already included in the database. However, the majority of journals were accepted after 2007. Testa (2008) confirms that the list of Web of Science was supplemented with the best regional journals typically published outside the US or UK. From 2007 to the end of 2010, thirty journals published in Lithuania passed the selection process and were included in the Web of Science.

A good few scholars analyse publishing of local journals and announce their research results. An especially comprehensive overview of regional journals is offered in the article by Hedlund and Rabow (2009), in which the co-authors analyse the scholarly publishing of Scandinavian counties from a variety of angles.

Twenty years ago, Russian language was of paramount importance for Lithuanian scholars; and even though lately the majority of authors publish their research results in English, Lithuanian and other languages remain very popular as well.
The citation of publications is partially determined by the language, in which they are published, which is very well reflected in the article by Garfield (Garfield, 1990) concluding that all scholars with their native tongue other than English must master this language as the main flow of cited literature is in English.

To achieve effective participation of Lithuanian scientific journals in the global scholarly communication, indicators must be assessed and an effective publishing strategy designed to be noticed and appreciated by foreign scholars.

The purpose of this publication is to familiarize the reader with certain indicators of Lithuanian scientific journals referenced in the *Thomson Reuters Web of Science* databases. Hopefully, these summary indicators will assist scholars in better understanding of the general situation of Lithuanian journals as well as inform publishers about quantitative and qualitative changes to be undertaken in the process of publishing, since currently Lithuanian finds itself in the midst of a hot discussion regarding expedience of Lithuanian scholarly publishing and inclusion of publications to the Web of Science — one of the most prestigious databases of the world. At the end of 2010, thirty Lithuanian journals were referenced in the Web of Science databases. Over the course of a few years, the majority of universities and research centres were merged and reorganized. Following structural reorganization in 2010, publishing of the majority of journals referenced in Web of Science was concentrated in universities (73.33%) (see Figure 1). It is commonly recognized that university publishing is an integral structural part of a university as an institution of science and education. It should be underlined that Lithuanian academic institutions utilize scholarly publishing with the purpose to issue a wide variety of scientific and higher education literature, which is mostly accessible to all scholars even though utilization of all Open Access advantages accelerated only recently.

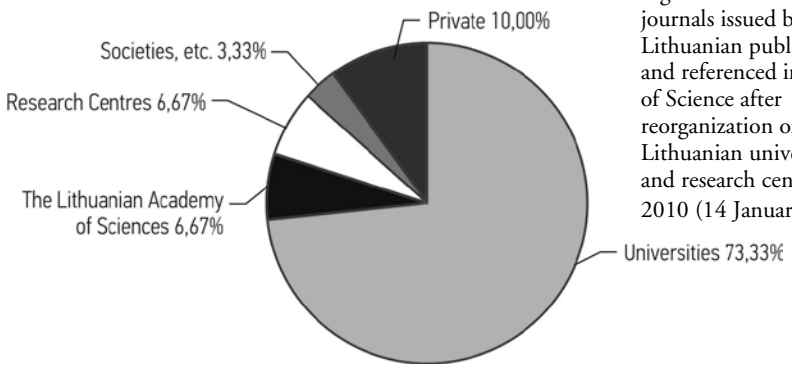

Fig. 1. Distribution of journals issued by Lithuanian publishers and referenced in Web of Science after reorganization of Lithuanian universities and research centres in 2010 (14 January 2011)

The Research Methodology

As Lithuanian journal indicators started rapidly changing towards improvement during 2009-2010, this period was selected for analysis of indicators pertaining to Lithuanian scientific journals. The article investigates journals from a variety of angles, providing the quantitative assessment in percentage in Table 1:

A portion of scientific articles.

A percentage of scientific articles (*Articles*) in the table provides the portion of the overall number of journal publications in the database in 2009–2010. No striking variety of Lithuanian scientific journals is to be found as the majority of them offer scientific articles (*Articles*), conference proceedings and editorial information. E.g., in the total number of *ISI Web of Science* publications in 2003–2009, the portion of scientific articles in *Baltic Astronomy* amounts to 39% (*Articles*), meanwhile 59% of them are conference proceedings (or *Meeting note*); however, the number of scientific articles shoots up to 98% in the volume of 2009. This was possibly determined by the change in the procedure for assessment of scientific products, which was introduced in Lithuania at the time, bringing down the rating for articles falling into the category of conference proceedings. In some cases, publications can be incorrectly named by publishers; e.g. every issue of *Transformations in Business & Economics* has a *Special Editorial* in addition to an *Editorial*, attributed to the *Editorial Material* in the database. However, in this journal, the *Special Editorial* is a true scientific article, which should be attributed to *Articles*; in this case, the rating of this journal in 2009–2010 would be greater than the current 79.02%. To ensure accurate measurement of the portion of scientific articles within journals, editorial boards should clearly name every publication as an article, conference proceeding, editorial and etc.

Internationalism.

Percentages in the graph demonstrate the number of publications of foreign authors within a journal. This indicator can predict the awareness of the journal among foreign authors as well as the potential of journal dissemination abroad. E.g., *Materials Science* (internationalism amounting to 10%) and *Lithuanian Journal of Physics* (14.68%) have a low indicator as they are predominated by Lithuanian scholars, thus they are hardly to achieve a greater Impact Factor and citation by foreign colleagues, unless strong marketing measures are employed, e.g., even though the internationalism of *Medicina* amounts to 5.90% and 60% of publications are provided in English, publications are cited in review articles *(Review)* of scholars from a variety of countries, which is probably determined by an extensive list of international databases, into which the journal is included. Analysis of journals from the US and Germany provides that their internationalism hardly approaches 40%, which means that 60% of authors are local scholars. Differently, the internationalism of journals from the United Kingdom often exceeds 80%. This is determined by the highly developed scholarly publishing and marketing in this country. Being a small country and striving for greater global awareness of its journals, Lithuania should not focus inwardly and publish articles by Lithuanian scholars alone.

The language of publications.

This indicator demonstrates the international dissemination potential of the journal, i.e. the language in which it is published. The fact stating that the language of a publication also determines average citation of the journal was confirmed by previously delivered researches (Garfield, 1990; Hedlund and Rabow, 2009). The article by Hedlung and Rabow (2009) mentions that "English-language publications are favoured in research assessments, international recognition, and impact, while the visibility of local-language scholarly journals in international databases is low". In comparison to earlier years, a growing number of Lithuanian journals started resorting to English language in the period 2009–2010, issuing fewer publications in Lithuanian. Thus, transformation of some Lithuanian journals into international publications with articles in English alone gave rise to new journals, which are open to articles in Lithuanian. Usually, these new journals do not seek to be indexed by Web of Science databases.

Electronic publishing of Lithuanian journals.

In Lithuania, electronic publishing of journals is still in its cradle. This is demonstrated in the diagram (Figure 2), which provides figures on articles made accessible on the Internet by Lithuanian journals referenced in the Web of Science. Out of thirty journals, four were inaccessible on-line, sixteen — provided PDF files in regular websites, nine — were accessible via commercial publishers (Springer, Taylor & Francis, Emerald) and one — via the ADS service.

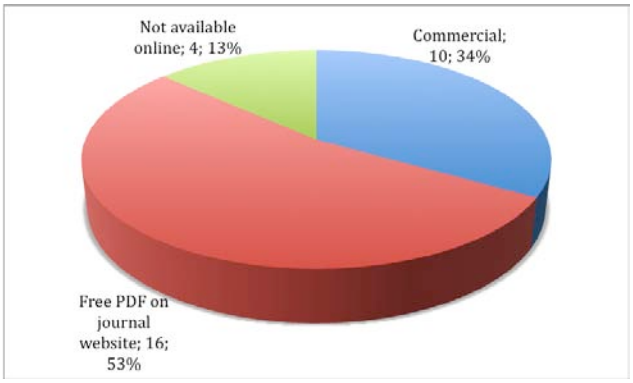

Figure 2. Access to the content of Lithuanian journals

Table 1 indicates whether a journal is registered in DOAJ (DOAJ 2011) and provides the date of registration. As provided, not all of the open access journals are registered in DOAJ and the reasons of editorial boards remain uncertain.

Conclusions

Brief overview of some indicators pertaining to Lithuanian scientific journals and their place in the global context allows suggesting that extensive efforts of Lithuanian scholars to achieve higher quality of published journals and their international recognition were successful: the number of journals referenced in the top databases grew as well as their international dissemination and recognition. Designers of the strategy for Lithuanian scholarly publications should focus on experience of countries with the greatest number of publications per one million inhabitants (Research.fi). Following the citation analysis of Lithuanian journals in the Web of Science, the following conclusions may be drawn:

1. Lithuanian scientific journals mostly publish Articles and a small portion of Conference Proceedings, meanwhile Meeting Abstracts were almost inexistent (the average Impact Factor being very low). In recent years, Lithuanian journals started publishing Reviews, the average Impact Factor of which are usually very high. Journal publishers are suggested to accommodate one good quality review in each issue.

2. Over the researched period, more than half of all articles in 17 out of 30 journals (56%) were authored by foreign scholars. This is a good indicator, considering its much lower level three years ago.
3. 24 out of 30 journals (80%) publish articles in English (> 90% of all articles). To achieve better indicators (Impact Factor and others) — which have a great impact on prestige of a journal — publishers of Lithuanian journals should focus more on articles in English in all fields of science. Usually, high Impact Factor also determines the number of manuscripts submitted to a journal by both local and foreign authors. Furthermore, articles of Lithuanian scholars written in Lithuanian are usually cited by Lithuanian authors alone.
4. To achieve better journal indicators, publishers of Lithuanian scientific journals should utilize the Open Access potential for dissemination of journals in the electronic space: Open Journal System, register journals in DOAJ and etc.

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Table 1. Some indicators from 2009–2010 of the Lithuanian research journals which are indexed by *ISI WoS* database (data from *Thomson Reuters Web of Science*; August, 2010)

Journal		Indexed by Web of Science from	IF, 2009	A portion of scientific articles,%	International ism (foreign authors),%	The language of publications
Baltic Astronomy	Available at the ADS service	2003	1.032	98.2	63.64	EN – 100%
Baltic Forestry	Full text articles not currently available online	2007	0.364	95.8	64.58	EN – 100%
Baltic Journal of Management (ISM)	Subscription model. Emerald	2008	-	80.5	80.85	EN – 100%
Baltic Journal of Road and Bridge Engineering (VGTU)	Full text articles not currently available online	2006	2.056	96.7	49.2	EN – 100%
Baltica (Gamtos tyrimų centro Geologijos institutas)	Free PDF on the website, Added to DOAJ: 2005-03-16	2007	0.529	87.5	62.5	EN – 100%
Chemija	Free PDF on the website	2007	0.254	89	25.56	EN – 95.3; LT – 4.69
Elektronika ir elektrotechnika	Free PDF on the website	2007	0.439	99.6	49.57	EN – 100%
Filosofija, sociologija	Free PDF on the website	2008	-	93.5	8.06	EN – 16.13%; LT – 83.87%
Informatica	Free PDF on the website	2002	1.04	98.7	57.9	EN – 100%
Information Technology and Control	Free PDF on the website	2007	0.495	97.4	35.06	EN – 100%
International Journal of Strategic Property Management	Subscription model. Co-publishing with Taylor and Francis	2008	-	90.9	78.18	EN – 100%
Inzinerine Ekonomika-Engineering Economics	Free PDF on the website, Added to DOAJ: 2006-10-04	2007	-	97.3	17.7	EN – 99.1%; LT – 0.9%
Journal of Baltic Science Education	Full text articles not currently available online	2008	-	75.8	97.0	EN – 100%
Journal of Business Economics and Management	Subscription model. Co-publishing with T&F	2007	2.015	100	58.2	EN – 100%
Journal of Civil Engineering and Management	Subscription model. Co-publishing with T&F	2008	-	95.4	60.55	EN – 100%
Journal of Environmental Engineering and Landscape Management	Subscription model. Co-publishing with Taylor and Francis	2007	1.508	95.6	28.38	EN –86.48%; LT – 10.81%; RU – 2.7%
Journal of Vibroengineering	Full text articles not currently available online	2007	0.357	100	41.62	EN – 100%
Lithuanian Journal of Physics	Free PDF on the website	2007	0.395	88.1	14.68	EN – 100%
Lithuanian Mathematical Journal	Subscription model. Springer	2007	0.486	97.2	44.44	EN – 100%
Logos-Vilnius	Free PDF on the website	2007		90.6	26.09	EN – 1.5%; LT – 98.5%
Materials Science-Medziagotyra	Free PDF on the website	2007	0.299	56.1	10.0	EN – 100%
Mathematical Modelling and Analysis	Subscription model. Co-publishing with T&F	2007	0.602	84.3	86.75	EN – 100%
Mechanika	Free PDF on the website	2007	0.780	100.0	35.3	EN – 100%
Medicina-*Lithuania*	Free PDF on the website, Added to DOAJ: 2004-09-15	2007	0.506	90.5	5.9	EN – 63.1% LT – 36.9%
Problemos	Free PDF on the website	2005	-	83.1	28.17	EN – 15.5% LT – 84.5%
Technological and Economic Development of Economy	Subscription model. Co-publishing with Taylor and Francis	2007	-	96.6	42.05	EN – 100%
Transformations in Business & Economics	Free PDF on the website	2005	1.205	79.02	72.03	EN – 100%
Transport	Subscription model. Co-publishing with T&F. Added to DOAJ: 2008-07-31	2007	2.552	100	52.94	EN – 100%
Veterinarija ir zootechnika	Free PDF on the website	2007	0.165	99.1	13.2	EN – 36.6% LT – 63.4%
Zemdirbyste-*Agriculture*	Free PDF on the website. Added to DOAJ: 2010-10-25	2008	-	97.3	18.58	EN – 61.06% LT – 38.94%