

OPEN ACCESS TO RESEARCH ARTICLES PUBLISHED IN ICELAND IN 2013

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Introduction

The frequency of open access (OA) in Iceland is measured by searching for articles in Web of Science (WOS) published in foreign journals from the entire country. Further, a search was done in the Directory of OA Journals (DOAJ) to find out how many articles were published in Green, Hybrid or Golden OA.

The outcome is compared with the outcome in other countries.

The outcome for OA in Iceland is also compared with articles published at Landspítali the National University Hospital of Iceland. Landspítali is also included in the total number for Iceland. The year measured is 2013.

The outcome for Landspítali is also compared to a search done 2010 for Landspítali by using a different search method for the year 2013 than used the year 2010, which covered a four year period 2007 – 2010, to find out if the different methods would show a different result for OA for Landspítali.

An analysis was done for the articles published 2013 by searching the Directory of OA Journals (DOAJ) to find out if Landspítali had used all options to publish in Green, Hybrid or Golden OA.

The SNIP score for the journals that published the Golden and Hybrid articles from Landspítali in 2013 were also studied to compare the score for Golden OA articles and Hybrid OA articles.

Number of articles published in open access in Iceland

According to the search done in Web of Science and limited to the year 2013, there are 969 articles and review articles published from Iceland in foreign journals. Of these 969 articles, 108 articles are in OA. These are all articles published as Golden or Hybrid Open Access. The OA limit used in Web of Science is limited to journals indexed in Directory of

OA journals (DOAJ). A search was done on the 861 remaining articles that were non OA articles from the Web of Science search. Of these 861 articles, 10 articles were in Golden or Hybrid Open Access. These additional 10 articles were added to the 108 Golden or Hybrid OA articles from the Web of Science search and the total became 118 Golden or Hybrid OA articles or 12.2% of all articles from Iceland.

Golden or hybrid open access is about 12% and is 5% lower for Iceland than stated in the article *Anatomy of open access publishing* (Laakso M) where golden open access is approximately 17%. A search was done for the 851 non Golden OA articles and 187 articles were found to be in Green Open access or 19.3% of all articles published in foreign journals that year.

Green Open access to research articles in Iceland is 19,3% or 6% higher compared to the outcome in the article *Anatomy of Green Open Access* (Björk B-C) where according to the article Green Open access is approximately 12%.

Green, Gold or Hybrid OA articles published from Iceland in 2013 were 305 of the total of the 969 articles published or 31.5%. The remaining 664 articles are closed access.

Table 1:

Year 2013	Iceland 969 articles
Golden or hybrid OA	118 articles (12.2%)
Green OA	187 articles (19.3%)
Total Green, Hybrid and Golden	305 articles (31.5%)

Table 1: Open access in Iceland 2013

Number of articles published in OA from Landspítali National University Hospital compared to all the article published in Iceland

Golden or hybrid open access to full text articles from Landspítali is higher than the percentage for the whole country for Golden or Hybrid OA. Green open

access to full text articles from Landspítali is the same percentage as for the whole country for Green OA. Table 2:

Year 2013	Iceland 969 articles	Landspítali 264 articles
Golden or hybrid OA	118 articles (12.2%)	55 articles (20.8%)
Green OA	187 articles (19.3%)	51 articles (19.3%)
Total Green, Hybrid and Golden	305 articles (31.5%)	106 articles (40.1%)

Table 2: Open access Iceland 2013 compared to Landspítali open access 2013

In the year 2013, 264 research articles were published in foreign journals from Landspítali. Of these 106 articles were OA or 40.1%. Golden or Hybrid OA were 55 articles or 20.8%. (22 articles were Golden OA from 11 journals) Green OA were 51 articles or 19.3%. Table 2. Of the 264 articles 158 articles are closed.

Golden or hybrid open access from Landspítali is about 20.8% which is 3% higher than stated in the article *Anatomy of open access publishing* (Laakso M) where golden open access is approximately 17%.

Landspítali published 32 articles in Icelandic journals in 2013. All these articles are in OA and are accessible through Hirsla, the repository for Landspítali. If the Icelandic articles are added to the number of articles published in foreign journals open access is 46.6%. The Icelandic articles are not included in the results since only one Icelandic journal in health sciences is indexed in international databases. Although most of the journals in health sciences from Iceland are open on the publisher's website, none of them are defined as open access journals. None of the journals use a digital object identifier (DOI) and they are not listed in the Directory of Open Access Journals (DOAJ).

Comparing the result from 2007–2010 with the result from the 2013

Publications from Landspítali the year 2013 have decreased by 34 articles compared to the year 2012. The reason is not certain but one of the reasons might be the lack of funding to the hospital in the last few years due to the recession from the year 2008. Landspítali has not been able to support research sufficiently since the recession started.

For the search done for the year 2013, a different method was used than the year 2010. The search 2013 showed a better result for OA for Landspítali

than the method used for the search done in year 2010. In a search done in PubMed in

2010 covering a four year period, 2007-2010, for Landspítali only 14% were in OA. Of the total articles 75% were in OA in PubMedCentral and 25% through Golden OA. As stated in the article *Scholarly publishing at Landspítali the National University Hospital of Iceland* (Thorsteinsdottir) In comparison with the result from 2007–2010, the result from the 2013 search shows an increase in OA articles at Landspítali from 14% to 40.1% off published articles. The search for the year 2013 was in-depth. It was done in different databases and each article was examined. The outcome is not comparable since the method was not the same but it will be interesting to look at the difference again for the year 2014 by using the same method as the year 2013. From both searches, the majority of the Green OA is from PubMedCentral. Authors that have received a grant from National Institute of Health (NIH) have to comply with the mandate from NIH and all the articles that have been funded from NIH are deposited in PMC. Search method is important and to receive a correct outcome it is not enough to search just one database. It is important to view each article to receive the correct outcome.

Options used to publish in Green, Hybrid or Golden OA the year 2013

Of the 264 articles published in the year 2013 from Landspítali in foreign journals, 158 articles are closed. Of the 106 articles published in OA, the 55 Golden or Hybrid OA articles published from Landspítali were published in 30 journals. Of these 30 journals, 11 were Golden open access journals that did publish 22 articles.

Table 3

Golden Open access journals	Hybrid Journals
BMC Musculoskelet Disord	Am j Clin Nutr
BMC Public Health	Ann Rheum Dis
BMJ Open	Circulation
Cardiol Res Pract	Clin J Am Soc Nephrol
Environ Health	Clin Kidney
Gastroenterol Res Pract	Eur j Cardiothorac Surg
Health Quality Life Outcomes	Eur J Heart Fail
Nutrients	Eur Respir J
Open J Anesth	Food Nuts Res
PlosGenet	Genome Res
PLosOne	Haematologica
	HIV Med
	Invest Ophthalmol Vis Sci
	J Clin Nurs
	J Infect Dis
	J Neurol Neurosurg Psychiatry
	N Z Med J
	NEJ Med
	Palliat Med

Table 3: Golden and Hybrid (paid OA) OA journals from Landspítali the year 2013

Green OA were 51 articles published or 19.3%. A search was done in Directory of OA journals (DOAJ) for the 158 closed articles from Landspítali. Of the 158 closed articles, publishers allowed Green OA for 66 articles. Thus, publishers of the remaining 92 articles did not allow Green OA. If authors at Landspítali had used their rights to deposit into Hirsla, the Landspítali repository, 117 articles could be Green open access or 44.3% instead of 19.3% (51 articles) or about 25% higher Green open access.

The study does also show that 40% of research articles or 66 journals in the health field do not allow Green OA. Publishers of 50 of these 66 (76 %) journals allow paid Hybrid OA for the 56 articles published from Landspítali that were closed 2013. None of the

authors of the 56 articles at Landspítali selected the paid OA option for the 50 journals that did allow it. Table 4 (Next page)

Acta Anaesthesiol Scand	Emerg Med J	Issues Ment Health Nurs	Neurogastroenterol Motil
Acta Ophthalmol	Eur Heart J	J Am Geriatr Soc	Prostate
Acta pædiatrica	Eur j Cancer Prev	j Clin endocrinol metab	Psychooncology
Acta Psychiatr Scand	Eur j Clin Nutr	J Clin Hypertens	Rheumatology
Allergy	Eur j Gastroenterol Hepatol	J Clin Nurs	Scand j Caring Sci
Am J Hematol	Eur j Psychol Assess	J Intern Med	Scand J Gastroenterol
Am J Hypertens	Eur j Public Health	J Neurol neurosurg psychiatr	Scand J Immunol
APMIS	Eur Respir J	J Nurs Manag	Scand j Infect Dis
Arthritis Rheum	Foot Ankle Int	J Nutr	Scand J Rheumatol
Br J dermatol	Hepatology	J Psychiatr Ment Health Nurs	Scand J urol
Brain Inj	HIV Med	Kidney Int	Worldviews Evid Based Nurs
Curr Med Res Opin	Hum Mol Genet	Nat Commun	
Disabil Rehabil	Hum Reprod	Nat Genet	

Table 4. 50 Journals that allow Paid OA and not Green OA

Three of these 66 journals that do not allow Green OA were not found in (DOAJ). The remaining 13 journals do not allow paid nor Green OA.

Table 5:

Am J Med Genet	Eur j Contracept Health care
Am J Respir Crit Care Med	Eur J Palliative Care
Asian Cardiovascular Thoracic Annals	Hip int
Bioactive Carbohydrates Dietary Fibre	JAMA
Clin Chem	N Engl J Med
Clin Exp Rheumatol	Nature
Clin Lymphoma Myeloma Leuk	Sleep
Curr Hypertens Rep	Stroke

Table 5. Journals that allow No access

Of the 158 articles that are closed, 7 articles are published in non-subscription journals in Iceland. All the authors of these articles have been contacted and asked to deposit the final manuscript into Hirsla since all the publishers for these journals allow Green OA.

None of these authors have responded to the request. No reason has been given but these articles from

Year 2013	Landspítali 264 articles	If all options used for OA
Golden or hybrid OA	55 articles (20.8%)	111 articles (42%)
Green OA	51 articles (19.3%)	117 articles (44.3%)
Total Green, Hybrid and Golden	106 articles (40.1%)	228 articles (86.3%)

Table 6: Open access if Landspítali had used all option for open access 2013

Landspítali are with authors from different countries and it might be difficult to get permission from co-authors to deposit the articles in Hirsla?

Mandates are important regarding the success of open access. At Landspítali there is a new request,

unfortunately not a mandate, from the year 2013 where all researchers who receive funds from Landspítali are kindly requested to deposit the final reviewed manuscript into Hirsla, and allow open access to the articles. The new request might help towards Green open access at Landspítali but a strong mandate is what is needed.

If authors at Landspítali had used all options for publishing in OA: Green, Hybrid or Paid OA the OA could be 86.3%. Table 6.:

The Impact for the journals that published the Golden and Hybrid articles from Landspítali the year 2013

It has often been stated that open access journals do not receive as high impact as traditional journals. The Source Normalized Impact per Paper (SNIP) score from Scopus were studied to compare the score for Golden OA articles and Hybrid OA articles for the journals that published the Golden and Hybrid articles from Landspítali in 2013.

Of these 22 Golden OA articles that were published from Landspítali in 2013, 9 articles were published in PLoS One and 3 articles published in PLoS Genet. Both these journals are valued as important Golden OA journals and receive good (SNIP) score compared to other Golden OA journals. Out of the 11 Golden OA journals only one was not registered in Scopus and therefore did not have a (SNIP) score.

It has often been stated that open access journals do not receive as high SNIP score as traditional journals but 19 journals which published the Hybrid articles only 7 of the 19 journals had SNIP score higher than 2.000 and these were old traditional journals such as Circulation and N Engl J of Medicine that tend to score much higher than new open access journals. The rest of the hybrid journals had slightly higher SNIP score than the open access journals.

Overall the impact factor for OA articles published in Hybrid journals from Landspítali is higher than for articles published in Golden OA journals.

Table 7:

Golden Open access journals	SNIP(Scopus)	Hybrid Journals	SNIP(Scopus)
BMC Musculoskelet Disord	1.109	Am j Clin Nutr	2.337
BMC Public Health	1.215	Ann Rheum Dis	3.081
BMJ Open	0.881	Circulation	4.529
Cardiol Res Pract	0.477	Clin J Am Soc Nephrol	2.055
Environ Health	1.341	Clin Kidney	0.317
Gastroenterol Res Pract	0.460	Eur j Cardiothorac Surg	1.566
Health Quality Life Outcomes	1.511	Eur J Heart Fail	1.712
Nutrients	0.912	Eur Respir J	2.395
Open J Anesth	0	Food Nuts Res	0.593
PlosGenet	1.803	Genome Res	3.088
PlosOne	1.063	Haematologica	1.547
		HIV Med	1.082
		Invest Ophthalmol Vis Sci	1.326
		J Clin Nurs	1.090
		J Infect Dis	1.697
		J Neurol Neurosurg Psychiatry	1.715
		N Z Med J	0.376
		N Engl J Med	15.414
		Palliat Med	1.825

Table 7: (SNIP) score from Scopus for Golden and Hybrid OA journals from Landspítali

Conclusion

Open access is growing slowly in Iceland. The total outcome for all of open access: Green, Golden or Hybrid for all of Iceland is approximately 30%. For Landspítali the total is approximately 40%.

Golden or hybrid open access research articles are accessible right after publication but green open access mostly after 6 – 12 months embargo.

For all of Iceland immediate Golden or Hybrid access after publication is approximately 12% which is 5% lower for all of Iceland than open access in other countries as stated in the article *Anatomy of open access publishing* (Laakso M) where golden open access is approximately 17%. For Landspítali Golden or Hybrid OA is 20.8% or which is 3.4% higher than stated in this article.

Green Open access to research articles in Iceland is 19.3% or 6% higher compared to the outcome in the article *Anatomy of Green Open Access* (Björk B-C) where according to the article Green Open access is approximately 12%.

The outcome is the same for Landspítali as for all of Iceland.

Looking closely at Directory of Open Access Journals (DOAJ), authors from Landspítali do not use all their options to publish in Green nor Golden or Hybrid open access.

If they did use all options to publish in Green OA at Landspítali Green OA access could increase by 20% to 44.3%. If Landspítali did use all the option to publish in Hybrid paid OA. Additional 56 articles from Landspítali could be Hybrid paid OA or increase access from 20.8% to 42%. Publishers of 50 of these journals allow paid Hybrid OA. If authors at Landspítali had used all options for publishing in OA: Green, Hybrid or Paid OA, the OA could be 84.3%. Impact factor for OA articles published in Hybrid journals from Landspítali is higher than for articles published in Golden OA journals.

References

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