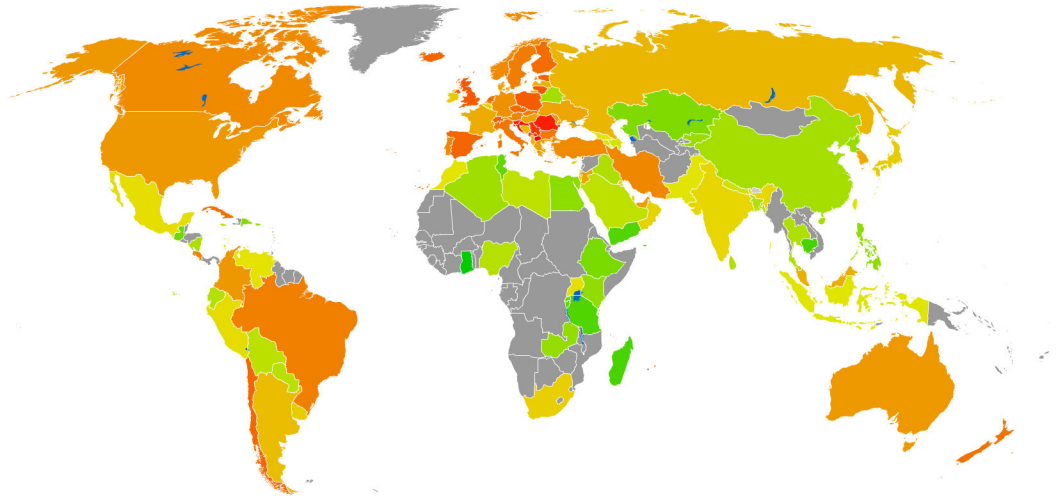


# The Countries of OAWorld 2011-2015



A Supplement to  
Gold Open Access Journals 2011-2015

Walt Crawford

# THE COUNTRIES OF OAWORLD 2011-2015

Supplement to *Gold Open  
Access Journals 2011-2015*

Walt Crawford

Cites & Insights Books  
Livermore, California, 2016

# The Countries of OAWorld 2011-2015

## Supplement to *Gold Open Access Journals 2011-2015*

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# Preface

This book is a supplement to *Gold Open Access Journals 2011-2015*, providing details on OA publishing by country, with the large APC-oriented publishers in APCLand removed. (See Chapters 2 and 12 of *Gold Open Access Journals* for more information on APCLand and OAWorld.)

Countries with at least 10 OA journals eligible for analysis in the overall project have full details, with some changes in formatting (e.g., dropping captions for tables and figures, relying on subheadings to identify them and stripping out some derivative data) to provide a more compact presentation.

Publisher category and subject tables appear sorted by article count.

There's very little commentary in most cases; I believe the data can largely speak for itself, especially when a country is compared to its region and to OAWorld.

After the OAWorld discussion, each region is followed by chapters for countries within that region, then a chapter offering brief notes on countries with fewer than 10 OA journals (except for Pacific/English, which has no such countries).

For compactness in PDF size and page count, redundant graphs in region and OAWorld chapters are deleted, as are starting-date graphs for countries with fewer than 25 journals.

The easiest way to find a particular country is the index, which consists entirely of country and region names.

Thanks again to SPARC for sponsoring this project.

The heatmap on the cover is based on combined 2014-2015 OAWorld articles per 100,000 people and was generated at [GunnMap 2](#).





# OAWorld

OAWorld has 8,932 journals, an average cost per article of \$611 for articles in APC-based journals and an overall average cost of \$241.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	8,229	8,578	8,403	7,882	7,077
%Free	80%	80%	81%	81%	83%
Articles	403,307	402,623	367,887	337,595	288,777
%Free	61%	62%	65%	67%	69%

## Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	63	24%	83,181	27%
Large: 150-599	309	49%	78,947	43%
Med.: 60-149	1,023	68%	89,489	67%
Small: 20-59	3,459	84%	114,799	83%
Smallest: 0-19	4,078	84%	36,891	87%

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**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	165	23,956	\$50,569,396	\$2,111
\$600-\$1.399	312	27,244	\$26,073,228	\$957
\$200-\$599	584	39,928	\$14,112,747	\$353
\$2-\$199	672	67,960	\$6,418,334	\$94
Free	7,199	244,219		
Total	8,932	403,307	\$97,173,704	\$241

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	4,443	92%	146,304	82%
Miscellaneous	2,012	78%	118,212	51%
Society/govt	1,086	83%	59,372	61%
Open Access	885	38%	57,934	30%
Traditional	506	59%	21,485	50%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1,349	15.1%	
Grew 10-49%	1,685	18.9%	34.0%
Even, ±9.99%	2,012	22.5%	56.5%
Shrank 10-49%	2,447	27.4%	83.9%
Shrank 50%+	1,085	12.1%	96.0%

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	2,099	29%	5,100
Journals/Pay	513	30%	1,220
Articles/Free	67,881	28%	176,338
Articles/Pay	55,060	35%	104,028

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	1,767	70%	113,370	55%
Engineering	277	70%	24,549	41%
Computer Science	335	57%	23,736	23%
Agriculture	396	66%	18,421	51%
Other Sciences	175	63%	18,119	44%
Physics	102	70%	17,191	63%
Education	614	92%	15,591	89%
Economics	553	79%	15,536	68%
Sociology	434	91%	13,987	76%
Language & Literature	571	97%	13,278	91%
Biology	268	57%	12,986	46%
Technology	169	77%	12,586	76%
Miscellany	132	84%	11,350	42%
Ecology	223	75%	10,077	65%
Zoology	214	65%	9,653	51%
Chemistry	113	70%	9,428	49%
Earth Sciences	284	87%	8,542	72%
History	296	99%	7,544	99%
Anthropology	280	91%	6,763	89%
Mathematics	217	89%	6,614	90%
Law	233	97%	5,139	92%
Political Science	226	94%	5,122	87%
Arts & Architecture	242	95%	4,936	92%
Media & Communications	180	94%	4,505	83%
Psychology	171	87%	4,311	86%
Religion	135	88%	3,818	69%
Philosophy	185	97%	3,301	96%
Library Science	140	97%	2,854	98%

# Africa

Africa has 141 OAWorld OA journals. Average cost per article for APC-based journals in 2015 was \$323; the overall average was \$209.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	134	139	138	132	115
%Free	52%	53%	52%	54%	53%
Articles	7,731	8,621	7,947	9,267	9,096
%Free	35%	33%	30%	26%	22%

Pay articles declining most years since 2011, free articles generally on the rise.

## Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	2	0%	1,869	0%
Large: 150-599	8	50%	2,125	43%
Med.: 60-149	12	42%	1,100	44%
Small: 20-59	58	48%	2,024	48%
Smallest: 0-19	61	62%	613	59%

Unusually, only the smallest are mostly free.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	11	1,333	\$839,897	\$630
\$200-\$599	25	1,183	\$444,829	\$376
\$2-\$199	30	2,500	\$333,316	\$133
Free	75	2,715		
<b>Total</b>	<b>141</b>	<b>7,731</b>	<b>\$1,618,042</b>	<b>\$209</b>

No expensive journals; almost half of fee articles have nominal fees.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	45	49%	2,928	18%
Open Access	37	41%	2,339	20%
Univ/college	46	61%	2,042	65%
Society/govt	8	75%	311	86%
Traditional	5	80%	111	87%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	12	8.5%	
Grew 10-49%	23	16.3%	24.8%
Even, ±9.99%	36	25.5%	50.4%
Shrank 10-49%	44	31.2%	81.6%
Shrank 50%+	24	17.0%	98.6%

More journals shrinking than growing.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	30	40%	45
Journals/Pay	13	20%	53
Articles/Free	1,438	53%	1,277
Articles/Pay	438	9%	4,578



**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	33	73%	2,624	31%
Technology	4	50%	910	47%
Agriculture	7	29%	908	8%
Other Sciences	10	40%	553	65%
Religion	8	38%	544	10%
Zoology	8	50%	267	44%
Computer Science	5	40%	257	5%
Economics	7	29%	211	20%
Ecology	4	75%	188	93%
Engineering	4	75%	166	69%
Language & Literature	8	38%	157	28%
Sociology	6	17%	125	4%
Miscellany	1	100%	123	100%
History	7	86%	111	87%
Chemistry	3	67%	110	73%
Education	5	80%	98	80%
Law	4	50%	80	24%
Biology	6	33%	74	23%
Media & Communications	2	50%	57	25%
Physics	1	0%	57	0%
Political Science	3	67%	50	56%
Psychology	2	50%	37	30%
Library Science	1	0%	12	0%
Mathematics	1	0%	12	0%
Philosophy	1	100%	0	100%

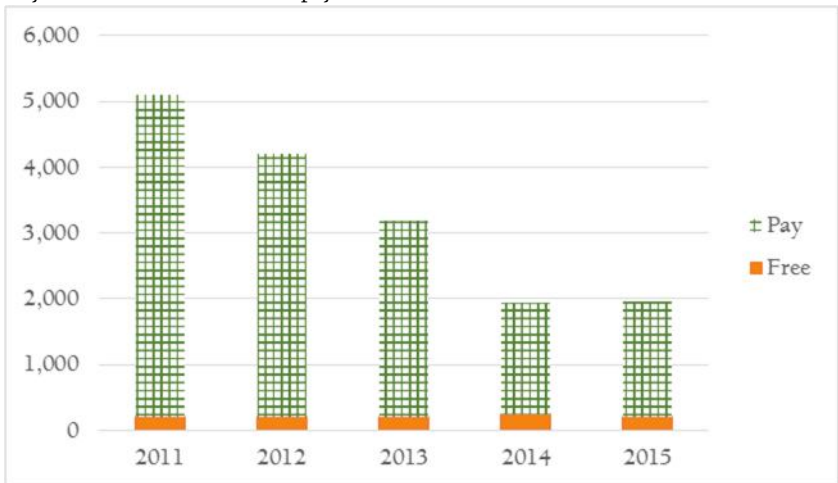
# Nigeria

Nigeria has 28 OAWorld OA journals. Average cost per article in 2015 was \$457 for APC-based journals, \$407 overall.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	27	27	28	27	23
%Free	15%	19%	18%	19%	17%
Articles	1,965	1,941	3,189	4,212	5,106
%Free	10%	13%	7%	5%	4%

Pay articles declined sharply in 2013 and 2014.



**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	1	0%	750	0%
Large: 150-599	1	0%	309	0%
Med.: 60-149	5	20%	445	16%
Small: 20-59	9	33%	317	42%
Smallest: 0-19	12	8%	144	0%

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$600-\$1.399	2	882	\$529,200	\$600
\$200-\$599	12	642	\$247,300	\$385
\$2-\$199	9	236	\$26,980	\$114
Free	5	205		
Total	28	1,965	\$803,480	\$409

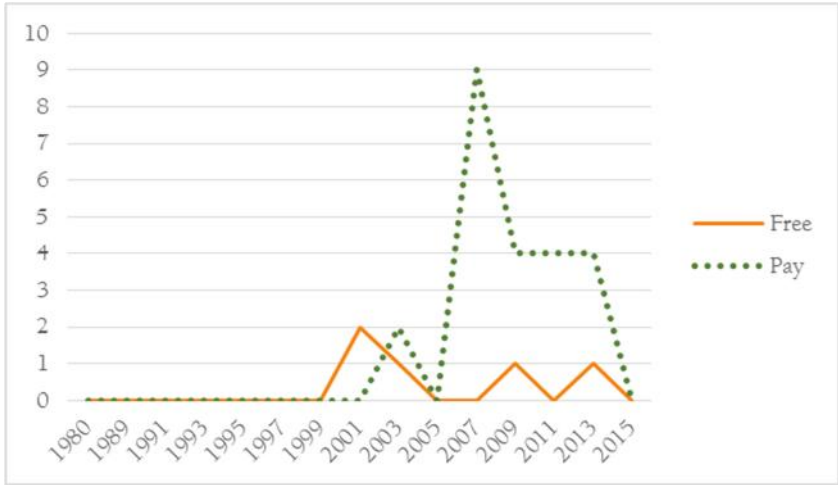
No really expensive journals, but also very little free OA.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	28	18%	1,965	10%
Open Access	10	10%	1,244	3%
Traditional	7	29%	511	24%
Miscellaneous	8	13%	166	29%
Society/govt	3	33%	44	0%

A rare case where universities and colleges predominantly charge APCs.

**Starting Date**



Almost all recent, primarily since 2006.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	7.1%	
Grew 10-49%	1	3.6%	10.7%
Even, ±9.99%	7	25.0%	35.7%
Shrank 10-49%	16	57.1%	92.9%
Shrank 50%+	1	3.6%	96.4%

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	4	80%	1
Journals/Pay	6	26%	17
Articles/Free	169	82%	36
Articles/Pay	115	7%	1,645

Only one of the five free journals reapplied to DOAJ, making pay journals even more dominant. No delisted journals grew significantly.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	5	0%	834	0%
Medicine	7	43%	634	13%
Other Sciences	3	0%	116	0%
Economics	2	0%	87	0%
Ecology	2	50%	84	85%
Zoology	2	50%	79	63%
Physics	1	0%	57	0%
Biology	3	0%	41	0%
Law	1	0%	15	0%
Religion	1	0%	14	0%
Sociology	1	0%	4	0%

Unusual in that medicine isn't the topic with the most coverage—and only two subjects are mostly free, with most being entirely paid.

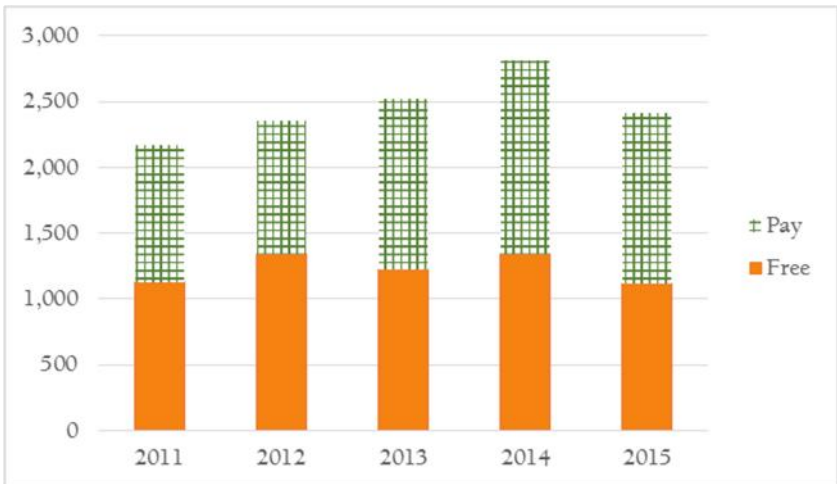
# South Africa

South Africa has 73 OAWorld OA journals. Average cost in 2015 for articles in APC-based journals was \$412; overall average was \$221.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	70	72	73	69	67
%Free	54%	54%	55%	55%	54%
Articles	2,412	2,812	2,524	2,351	2,167
%Free	46%	48%	49%	57%	52%

Both free and pay declined slightly in 2015.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	50%	409	38%
Med.: 60-149	5	40%	457	47%
Small: 20-59	36	47%	1,235	43%
Smallest: 0-19	30	67%	311	68%

**APC Levels and Revenues**

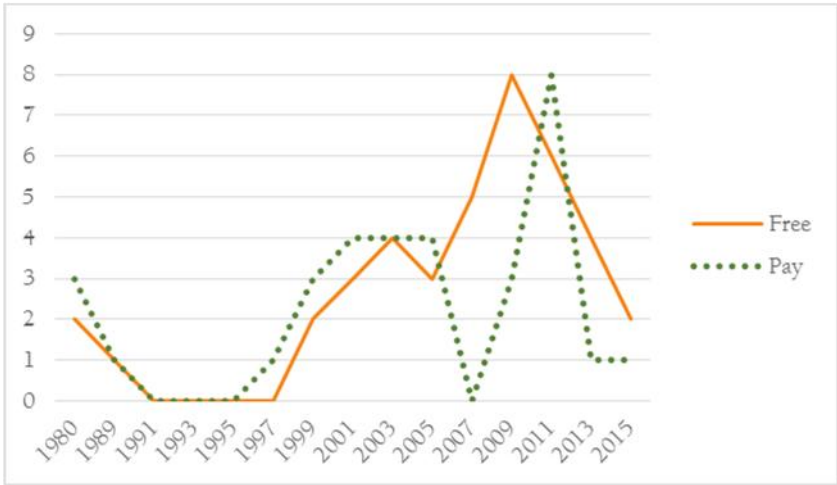
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	9	451	\$310,697	\$689
\$200-\$599	12	511	\$191,529	\$375
\$2-\$199	12	334	\$31,631	\$95
Free	40	1,116		
Total	73	2,412	\$533,857	\$221

Just as there are no very large journals, there are no expensive ones.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	25	48%	1,063	39%
Miscellaneous	21	62%	653	47%
Univ/college	20	45%	406	30%
Society/govt	2	100%	179	100%
Traditional	5	80%	111	87%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	6	8.2%	
Grew 10-49%	15	20.5%	28.8%
Even, ±9.99%	21	28.8%	57.5%
Shrank 10-49%	20	27.4%	84.9%
Shrank 50%+	10	13.7%	98.6%

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	19	48%	21
Journals/Pay	5	15%	28
Articles/Free	559	50%	557
Articles/Pay	245	19%	1,051

Another case where free journals were delisted more than usual.



**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	17	82%	575	77%
Religion	7	43%	530	11%
Other Sciences	2	100%	171	100%
Zoology	4	25%	148	19%
Sociology	4	0%	116	0%
Language & Literature	5	0%	113	0%
History	7	86%	111	87%
Education	4	75%	98	80%
Engineering	3	67%	91	43%
Ecology	1	100%	88	100%
Economics	3	0%	82	0%
Law	2	50%	58	21%
Political Science	3	67%	50	56%
Psychology	2	50%	37	30%
Chemistry	1	100%	34	100%
Computer Science	2	50%	31	19%
Biology	2	50%	25	36%
Technology	1	0%	16	0%
Media & Communications	1	100%	14	100%
Library Science	1	0%	12	0%
Mathematics	1	0%	12	0%

Religion comes in close behind medicine and far ahead of any other topic—and it's almost all in APC-charging journals.

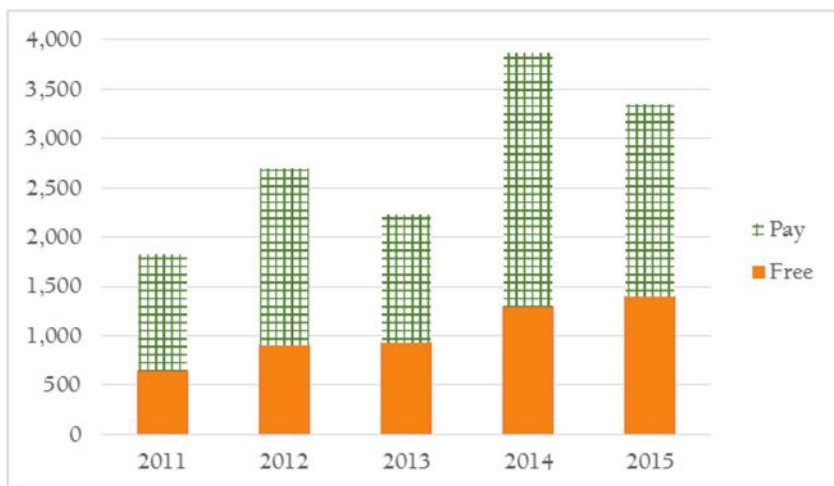
## Other African Countries

This group of countries has 40 OA journals. Average cost per article in APC-charging journals in 2015 was \$143; overall average, \$84.

### Journals and Articles

	2015	2014	2013	2012	2011
Journals	37	40	37	36	25
%Free	76%	75%	73%	78%	84%
Articles	3,354	3,868	2,234	2,704	1,823
%Free	42%	33%	42%	33%	36%

Sizable growth in 2014, partly fading away in 2015.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	1,119	0%
Large: 150-599	5	60%	1,407	53%
Med.: 60-149	2	100%	198	100%
Small: 20-59	13	62%	472	63%
Smallest: 0-19	19	89%	158	94%

One APC-charging megajournal, most articles in it and five large ones.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	30	\$6,000	\$200
\$2-\$199	9	1,930	\$274,705	\$142
Free	30	1,394	\$0	
Total	40	3,354	\$280,705	\$84

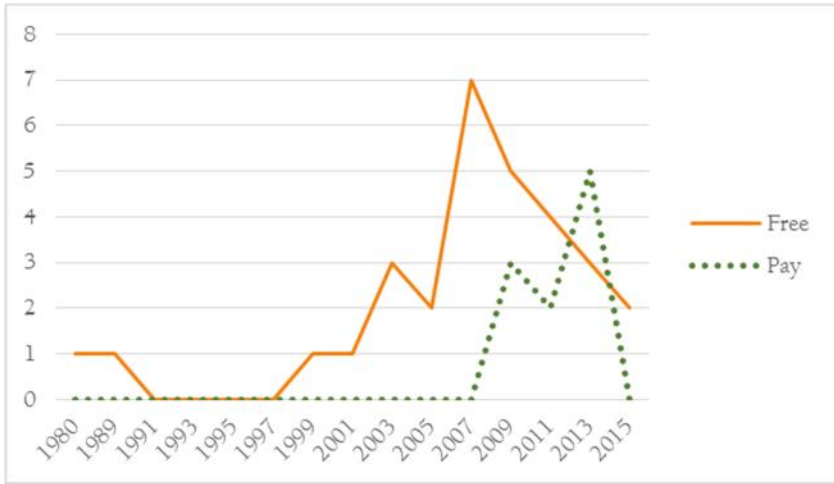
All low and nominal APCs, and most revenue is from very low APCs.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	16	50%	2,109	9%
Univ/college	19	89%	1,125	97%
Society/govt	3	100%	88	100%
Open Access	2	100%	32	100%

Independent journals publish most of the articles.

**Starting Date**



Note the pay-journal line: nothing before 2007.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	10.0%	
Grew 10-49%	7	17.5%	27.5%
Even, ±9.99%	8	20.0%	47.5%
Shrank 10-49%	15	37.5%	85.0%
Shrank 50%+	6	15.0%	100.0%

Most of these journals are shrinking, but not rapidly.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	7	23%	23
Journals/Pay	2	20%	8
Articles/Free	710	51%	684
Articles/Pay	78	4%	1,882

While journal delisting is typical, free article delisting is high.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	9	78%	1,415	20%
Technology	3	67%	894	48%
Other Sciences	5	40%	266	71%
Computer Science	3	33%	226	4%
Miscellany	1	100%	123	100%
Chemistry	2	50%	76	61%
Engineering	1	100%	75	100%
Agriculture	2	100%	74	100%
Language & Literature	3	100%	44	100%
Media & Communications	1	0%	43	0%
Economics	2	100%	42	100%
Zoology	2	100%	40	100%
Ecology	1	100%	16	100%
Biology	1	100%	8	100%
Law	1	100%	7	100%
Sociology	1	100%	5	100%
Education	1	100%	0	
Philosophy	1	100%	0	

**Country Summaries**

**Algeria**

Five journals, all but one university-based, all free, mostly growing. In all, 316 articles in 2015, up from 170 in 2014.

**Burundi**

One free journal with ten articles in 2015.

### **Democratic Republic of the Congo**

One free journal with three articles in 2015 (down from 28 in 2014).

### **Ethiopia**

Five journals, all free, mostly university-based, all steady or shrinking. A total of 194 articles in 2015, down slightly from 214 in 2014.

### **Ghana**

One APC-charging journal, shrinking, with ten articles in 2015.

### **Kenya**

Seven journals, six of them free. One growing, one steady, five shrinking (three rapidly). In all, 87 articles in 2015, down from 300 in 2014.

### **Libya**

Two journals (one free), 43 articles in 2015.

### **Madagascar**

One free journal with 16 articles in 2015.

### **Mauritius**

Two journals (one free) with 204 articles in 2015.

### **Morocco**

Seven journals, including two with APCs. Three growing (one rapidly), one steady, three shrinking (one rapidly). In all, 971 articles, down from 1,121 in 2014.

### **Rwanda**

One free journal with 16 articles in 2015.

**Tanzania, United Republic of**

One free journal with 40 articles in 2015.

**Tunisia**

One free journal with 12 articles in 2015.

**Uganda**

Three journals: two free, one APC-charging megajournal. A total of 1,321 articles in 2015.

**Zambia**

Two APC-charging journals with a total of 78 articles in 2015.

**Delistings**

All of these journals are in DOAJ16 except one from Ethiopia, one from Kenya, one from Morocco, one from Tanzania, and two each from Uganda and Zambia.

# Asia

Asia has 1,221 OAWorld OA journals. Average cost per article in APC-charging journals in 2015 was \$323; across all journals it was \$202.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	1,133	1,185	1,167	1,067	866
%Free	56%	56%	56%	57%	59%
Articles	101,276	97,894	82,477	68,288	49,919
%Free	29%	30%	35%	38%	44%

## Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	30	3%	37,478	5%
Large: 150-599	98	32%	25,585	26%
Med.: 60-149	214	45%	19,417	45%
Small: 20-59	427	62%	14,686	62%
Smallest: 0-19	452	65%	4,110	69%



**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	7	4,669	\$8,760,055	\$1,876
\$600-\$1.399	48	5,850	\$4,290,391	\$733
\$200-\$599	151	18,207	\$6,187,091	\$340
\$2-\$199	332	43,412	\$4,027,729	\$93
Free	683	29,138		
Total	1,221	101,276	\$23,265,266	\$230

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	349	46%	37,589	16%
Open Access	261	36%	26,858	26%
Univ/college	394	75%	20,220	48%
Society/govt	188	64%	14,134	38%
Traditional	29	45%	2,475	40%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	165	13.5%	
Grew 10-49%	213	17.4%	31.0%
Even, ±9.99%	265	21.7%	52.7%
Shrank 10-49%	354	29.0%	81.7%
Shrank 50%+	188	15.4%	97.1%

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	204	30%	479
Journals/Pay	226	42%	312
Articles/Free	9,530	33%	19,608
Articles/Pay	37,533	52%	34,605

A surprisingly high delisted percentage of pay journals, including a majority of articles for 2015.

**Subjects**

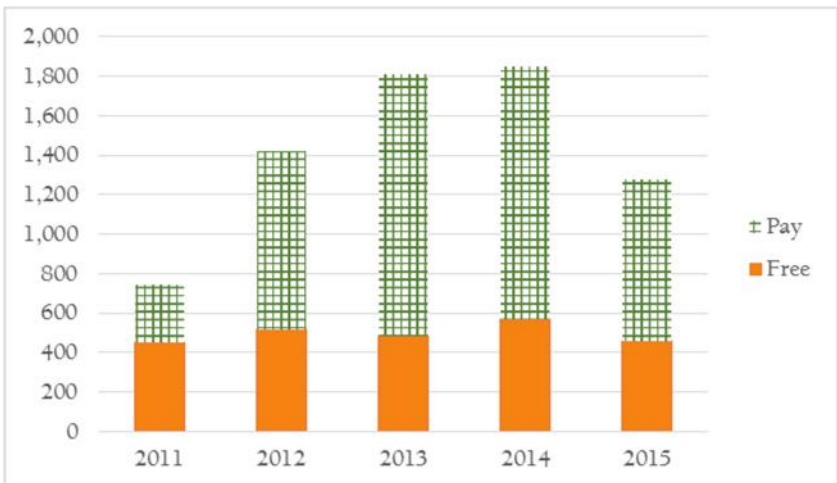
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	376	63%	37,707	36%
Computer Science	139	29%	16,340	9%
Engineering	72	43%	10,978	12%
Other Sciences	47	40%	6,521	8%
Technology	38	63%	3,842	71%
Agriculture	56	45%	3,268	22%
Miscellany	9	33%	3,237	2%
Biology	66	38%	3,078	28%
Chemistry	31	58%	2,670	45%
Zoology	33	45%	2,451	27%
Economics	53	51%	1,663	39%
Education	62	69%	1,528	57%
Sociology	26	65%	1,033	33%
Ecology	22	45%	853	29%
Earth Sciences	18	78%	761	81%
Mathematics	25	84%	708	91%
Language & Literature	28	82%	669	65%
Media & Communications	6	50%	625	16%
Political Science	6	67%	588	29%
Law	14	79%	570	41%
Physics	17	76%	544	71%
Anthropology	13	62%	479	77%
Religion	17	65%	309	60%
Psychology	10	90%	226	92%
Library Science	13	100%	224	100%
Arts & Architecture	12	83%	181	82%
History	8	75%	171	67%
Philosophy	4	100%	52	100%

# Bangladesh

Bangladesh has 31 OAWorld OA journals. In 2015, average cost per article for APC-charging journals was \$91; overall average was \$58.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	25	29	29	25	25
%Free	64%	66%	69%	68%	68%
Articles	1,278	1,851	1,814	1,422	744
%Free	36%	31%	27%	36%	61%



Journals mostly free, articles mostly not, big drop in 2015.

**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	0%	434	0%
Med.: 60-149	5	40%	473	46%
Small: 20-59	9	44%	243	46%
Smallest: 0-19	16	88%	128	100%

All very small journals are free—but they publish very few papers.

**APC Levels and Revenues**

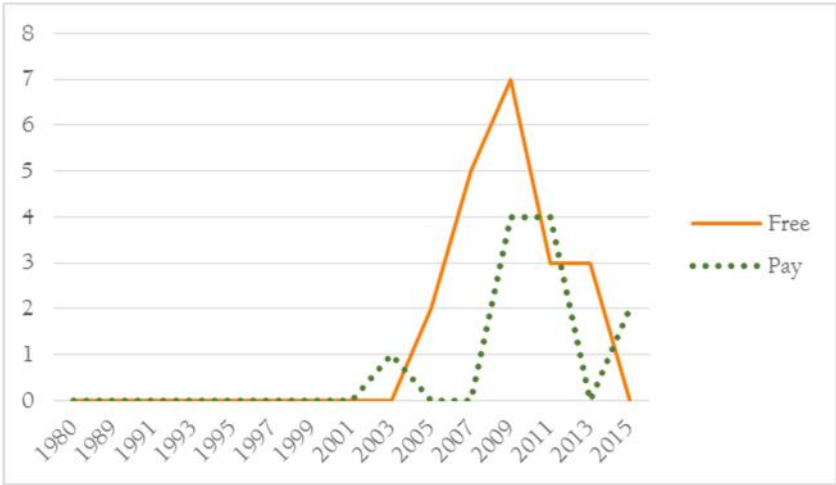
	Journals	Articles	Revenue	\$/article
\$200-\$599	1	0	\$0	\$0
\$2-\$199	10	821	\$74,726	\$91
Free	20	457		
Total	31	1,278	\$74,726	\$58

The single \$200 journal hasn't published articles since 2013.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Miscellaneous	11	36%	879	15%
Society/govt	14	86%	319	92%
Univ/college	6	67%	80	36%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	9.7%	
Grew 10-49%	4	12.9%	22.6%
Even, ±9.99%	3	9.7%	32.3%
Shrank 10-49%	12	38.7%	71.0%
Shrank 50%+	7	22.6%	93.5%

An unusually bleak picture, with less than one-third growing or steady.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	11	55%	9
Journals/Pay	7	64%	4
Articles/Free	233	51%	224
Articles/Pay	633	77%	188

Most journals delisted.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Biology	1	0%	434	0%
Medicine	13	100%	372	100%
Agriculture	6	33%	268	14%
Zoology	4	25%	119	12%
Other Sciences	3	33%	51	0%
Chemistry	1	100%	12	100%
Engineering	1	100%	11	100%
Philosophy	1	100%	11	100%
Computer Science	1	0%	0	

An odd mix: the single biology journal (by far the largest) charges; none of the mostly-small medical journals do. Agriculture and zoology are mostly fee-based.

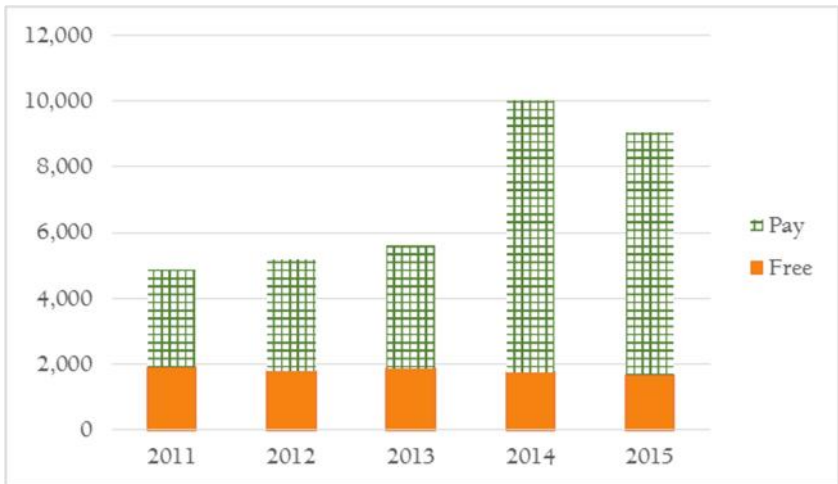
# China

China has 47 OAWorld OA journals. Average cost per article in APC-charging journals in 2015 was a high \$1,167; overall, a high \$949.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	46	46	45	43	43
%Free	50%	50%	49%	47%	47%
Articles	9,039	10,015	5,628	5,173	4,878
%Free	19%	17%	33%	34%	39%

The big jump in pay articles in 2014 fell somewhat in 2015.



Free-journal articles have been up and down in a narrow range.



**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	4	0%	4,506	0%
Large: 150-599	9	33%	2,417	27%
Med.: 60-149	16	44%	1,545	39%
Small: 20-59	13	77%	517	76%
Smallest: 0-19	5	80%	54	76%

Atypically, most articles are in a few very large APC-charging journals

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$1,400+	3	3,025	\$5,799,108	\$1,917
\$600-\$1.399	16	3,690	\$2,600,344	\$705
\$200-\$599	4	641	\$182,040	\$284
Free	24	1,683		
Total	47	9,039	\$8,581,492	\$949

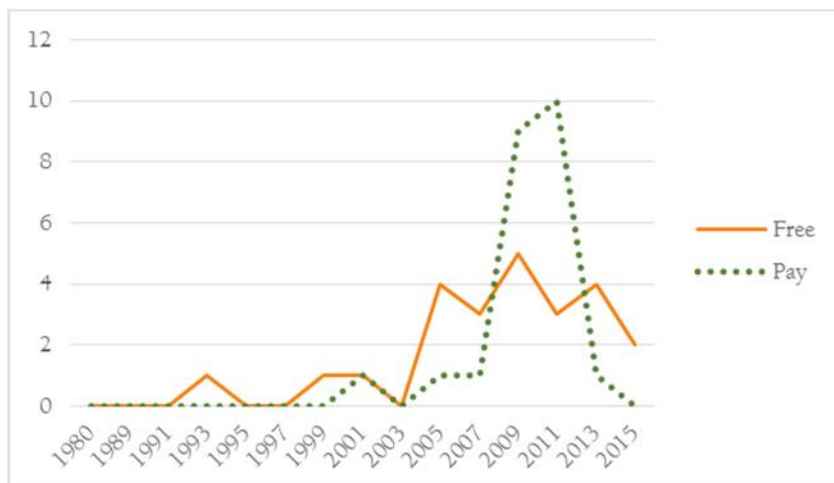
Note that there are *no* journals with nominal fees.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Open Access	16	6%	5,715	0%
Miscellaneous	16	75%	2,045	38%
Traditional	5	60%	488	75%
Univ/college	6	83%	444	59%
Society/govt	4	75%	347	72%

Mostly OA publishers (primarily one publisher with 14 journals).

## Starting Date



Nearly all pay journals started in 2008-2011.

## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	8.5%	
Grew 10-49%	12	25.5%	34.0%
Even, $\pm 9.99\%$	9	19.1%	53.2%
Shrank 10-49%	12	25.5%	78.7%
Shrank 50%+	9	19.1%	97.9%

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	7	29%	17
Journals/Pay	19	83%	4
Articles/Free	630	37%	1,053
Articles/Pay	6,382	87%	974

A very high rate of delisting for APC-charging journals, including that one 14-journal publisher with multimillion-dollar potential revenues.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	28	32%	7,127	10%
Agriculture	4	50%	1,092	18%
Chemistry	1	100%	217	100%
Technology	3	67%	164	92%
Other Sciences	3	100%	147	100%
Zoology	2	100%	136	100%
Earth Sciences	2	100%	73	100%
Biology	2	50%	46	17%
Economics	1	100%	20	100%
Language & Literature	1	100%	17	100%

Medicine dominates, and two-thirds of other subjects are entirely free

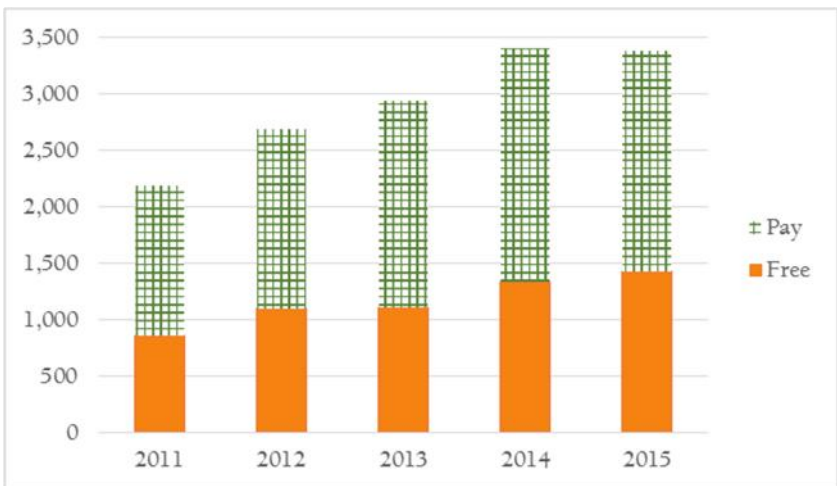
# Hong Kong

Hong Kong has 39 OAWorld OA journals. In 2015, average cost per article in APC-charging journals was \$297; overall average was \$171.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	38	39	38	35	31
%Free	53%	51%	53%	51%	58%
Articles	3,390	3,410	2,937	2,691	2,195
%Free	42%	39%	38%	41%	39%

Free journals continue to grow; slight pay drop in 2015.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	651	0%
Large: 150-599	5	40%	1,197	32%
Med.: 60-149	10	70%	930	74%
Small: 20-59	14	71%	507	67%
Smallest: 0-19	9	11%	105	17%

Unusual, with few smallest journals, all but one with APCs.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	13	965	\$422,386	\$438
\$2-\$199	6	993	\$158,880	\$160
Free	20	1,432		
Total	39	3,390	\$581,266	\$171

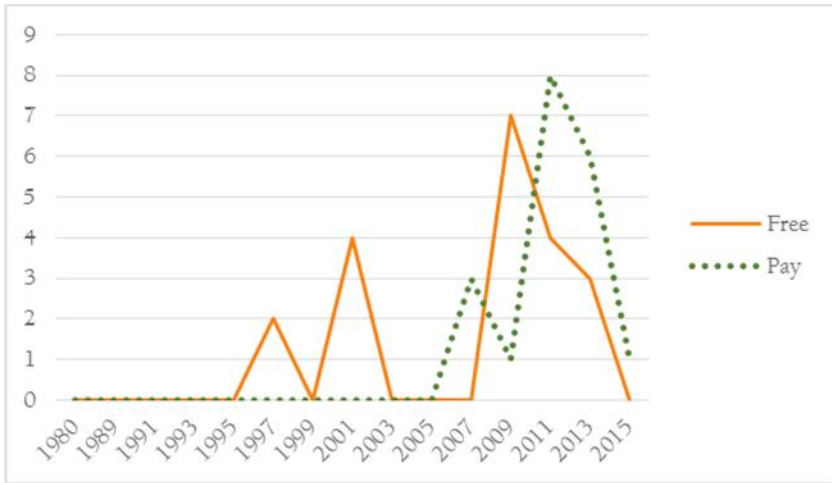
No expensive journals, even split between two lowest APC levels.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	17	41%	1,427	41%
Society/govt	7	43%	851	8%
Miscellaneous	10	60%	757	58%
Univ/college	5	80%	355	97%

No traditional publishers—and society publishers mostly have APCs.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	10.3%	
Grew 10-49%	9	23.1%	33.3%
Even, ±9.99%	9	23.1%	56.4%
Shrank 10-49%	16	41.0%	97.4%
Shrank 50%+	1	2.6%	100.0%

Very little extreme change in either direction.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	6	30%	14
Journals/Pay	3	16%	16
Articles/Free	333	23%	1,099
Articles/Pay	84	4%	1,874

Fewer pay-journal delistings than is typical. No delisted journal was growing 25% or more.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Computer Science	15	73%	1,032	67%
Engineering	3	0%	750	0%
Medicine	9	67%	727	88%
Political Science	1	0%	399	0%
Law	1	0%	242	0%
Mathematics	2	50%	74	35%
Biology	4	0%	73	0%
Education	2	100%	72	100%
Other Sciences	1	0%	13	0%
Ecology	1	0%	8	0%

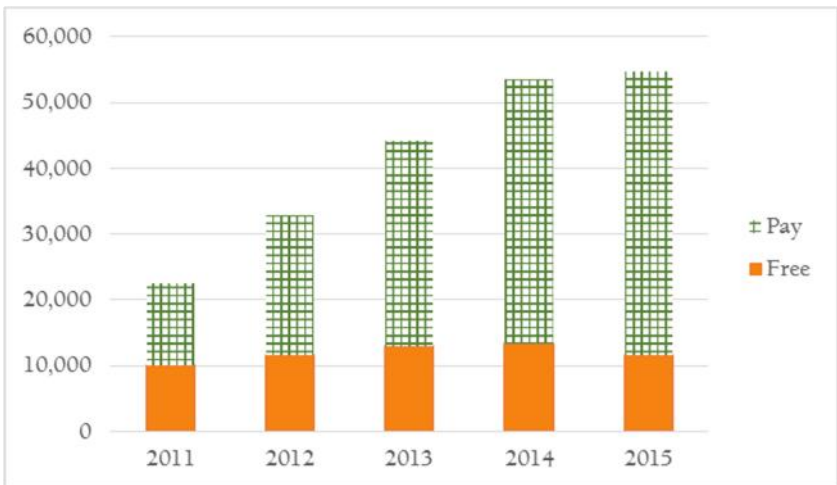
Distinctive, with more activity in computer science and engineering than in medicine—and also distinctive in that most medical articles are in no-fee journals.

# India

India has 461 OAWorld open access journals. Average cost per article in APC-charging journals in 2015: \$149. Overall average: \$118.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	427	447	446	400	310
%Free	44%	45%	44%	45%	51%
Articles	54,650	53,585	44,199	32,945	22,491
%Free	21%	25%	29%	35%	45%



A significant drop in free-journal articles in 2015, along with a slow-down in fast-rising pay journals publications.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	20	0%	26,030	0%
Large: 150-599	50	36%	12,571	30%
Med.: 60-149	106	43%	9,752	43%
Small: 20-59	143	56%	5,241	58%
Smallest: 0-19	142	44%	1,056	45%

Many high-volume all-APC journals, including four over 2,000 articles.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	677	\$1,080,400	\$1,596
\$600-\$1.399	14	382	\$282,964	\$741
\$200-\$599	43	7,377	\$1,994,733	\$270
\$2-\$199	196	34,701	\$3,088,350	\$89
Free	206	11,513		
Total	461	54,650	\$6,446,447	\$118

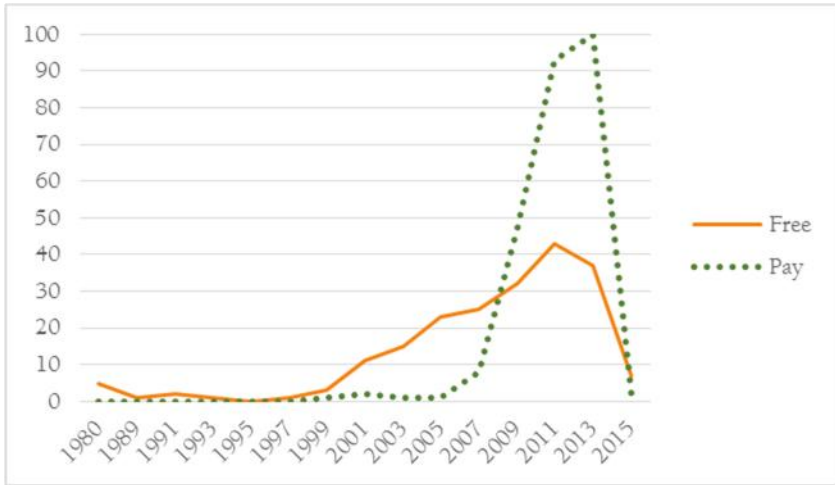
Most articles appear in very low-cost journals.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	202	34%	27,028	10%
Open Access	163	49%	13,920	45%
Univ/college	33	73%	7,418	9%
Society/govt	43	58%	4,835	24%
Traditional	20	45%	1,449	40%

While most university-published journals don't charge, nearly all of the articles are in the few that do.

**Starting Date**



A pure gold-rush pattern, with most pay journals starting 2008-2013.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	64	13.9%	
Grew 10-49%	72	15.6%	29.5%
Even, ±9.99%	68	14.8%	44.3%
Shrank 10-49%	157	34.1%	78.3%
Shrank 50%+	86	18.7%	97.0%

Most journals shrank from 2014 to 2015.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	57	28%	149
Journals/Pay	106	42%	149
Articles/Free	2,238	19%	9,275
Articles/Pay	20,302	47%	22,835

Unusually high percentage of delisting for pay journals and articles.

**Subjects**

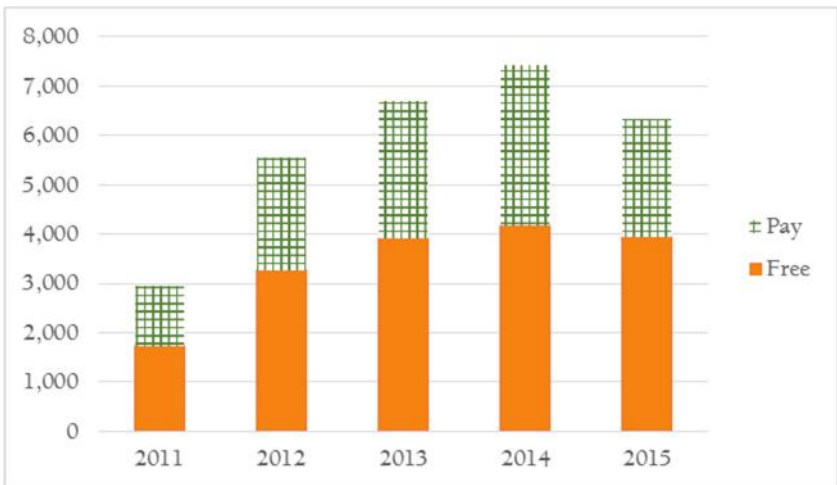
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	202	58%	21,295	35%
Computer Science	64	11%	10,547	3%
Engineering	24	17%	6,135	8%
Other Sciences	15	13%	5,451	1%
Miscellany	5	0%	2,981	0%
Chemistry	17	41%	2,027	31%
Biology	29	34%	1,476	30%
Zoology	6	50%	969	28%
Technology	15	53%	590	59%
Agriculture	11	9%	585	8%
Economics	14	29%	484	30%
Earth Sciences	7	86%	341	83%
Physics	5	80%	312	73%
Education	4	25%	255	2%
Ecology	5	40%	246	27%
Sociology	9	56%	165	39%
Anthropology	2	100%	132	100%
Library Science	4	100%	132	100%
Language & Literature	7	71%	128	83%
Psychology	2	100%	100	100%
Law	5	100%	81	100%
Political Science	1	100%	74	100%
Mathematics	4	50%	66	95%
Arts & Architecture	2	100%	65	100%
Media & Communications	1	0%	13	0%
Philosophy	1	100%	0	

# Indonesia

Indonesia has 253 OAWorld open access journals. Average cost per article for APC-charging journals in 2015: \$130. Overall average: \$49.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	237	247	229	213	132
%Free	67%	66%	67%	68%	64%
Articles	6,329	7,419	6,709	5,554	2,953
%Free	62%	56%	58%	59%	58%



Mostly free and trending that way, down (mostly pay) in 2015.

**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	2	50%	441	37%
Med.: 60-149	13	62%	1,223	68%
Small: 20-59	109	58%	3,192	58%
Smallest: 0-19	129	72%	1,473	75%

No very large journals, and free journals a majority in most sizes.

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$200-\$599	9	544	\$156,690	\$288
\$2-\$199	79	1,833	\$153,238	\$84
Free	165	3,952		
Total	253	6,329	\$309,928	\$49

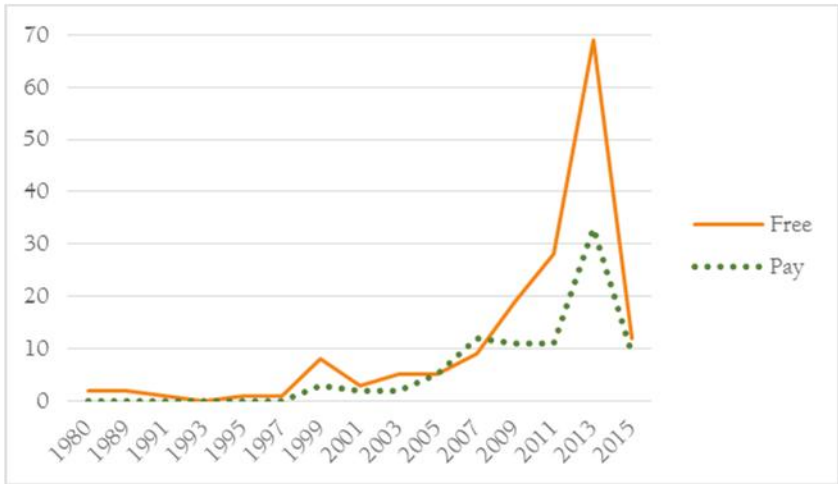
No expensive journals and almost all articles either free or nominally priced; thus the very low per-article average.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	203	70%	4,952	71%
Miscellaneous	29	59%	690	48%
Open Access	13	0%	539	0%
Society/govt	8	75%	148	80%

No OA journals from traditional publishers.

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	29	11.5%	
Grew 10-49%	44	17.4%	28.9%
Even, $\pm 9.99\%$	77	30.4%	59.3%
Shrank 10-49%	58	22.9%	82.2%
Shrank 50%+	39	15.4%	97.6%

Mostly even or better, but more rapid shrinkage than rapid growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	7	4%	158
Journals/Pay	18	20%	70
Articles/Free	121	3%	3,831
Articles/Pay	336	14%	2,041

Generally low delistings—and very few free delistings.

**Subjects**

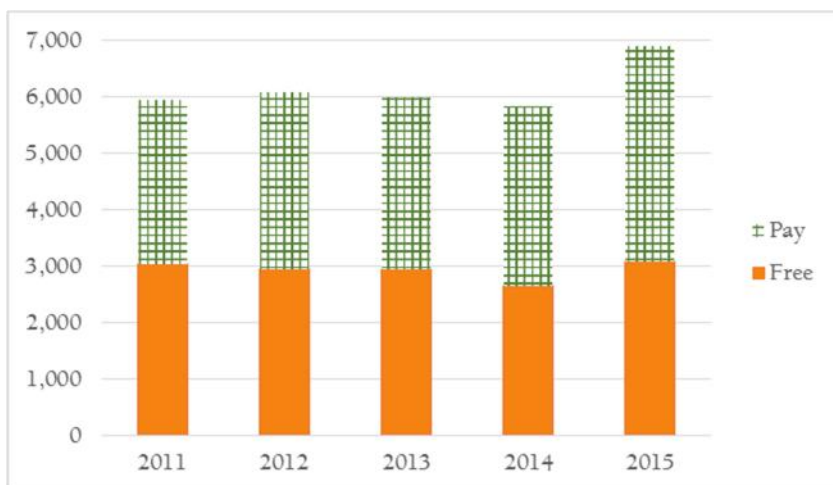
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	28	79%	1,037	75%
Education	39	72%	903	69%
Engineering	18	39%	681	17%
Economics	16	81%	396	83%
Technology	9	89%	382	100%
Agriculture	17	71%	322	64%
Anthropology	8	50%	279	68%
Biology	11	55%	260	67%
Other Sciences	7	29%	247	13%
Law	7	71%	243	62%
Computer Science	14	43%	224	57%
Religion	13	69%	222	61%
Language & Literature	9	78%	173	51%
Chemistry	8	63%	159	58%
Ecology	6	50%	127	57%
Zoology	6	50%	121	74%
Earth Sciences	5	60%	96	60%
Physics	6	83%	82	73%
Arts & Architecture	8	75%	81	59%
Miscellany	2	100%	69	100%
History	3	67%	54	63%
Mathematics	3	67%	54	76%
Psychology	4	75%	48	65%
Political Science	2	50%	27	33%
Media & Communications	1	0%	22	0%
Sociology	3	33%	20	100%

# Japan

Japan has 94 OAWorld open access journals. In 2015, the average cost per article in APC-charging journals was \$798; overall average, \$441.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	89	92	93	91	90
%Free	64%	64%	65%	66%	66%
Articles	6,907	5,837	6,008	6,098	5,944
%Free	45%	45%	49%	48%	51%



Free journals recovered in 2015 after three down years.



**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	2	0%	1,563	0%
Large: 150-599	8	75%	2,001	69%
Med.: 60-149	20	40%	1,715	39%
Small: 20-59	38	63%	1,437	62%
Smallest: 0-19	26	88%	191	83%

Unusual in that most large journals are free, most medium journals not.

**APC Levels and Revenues**

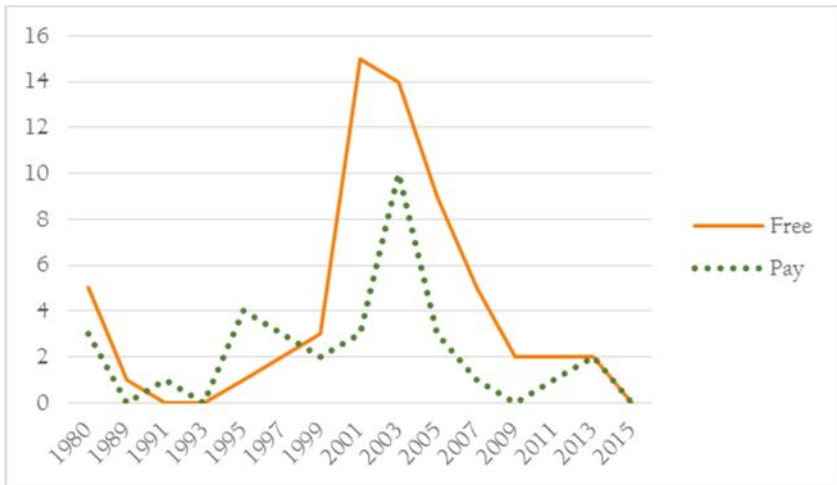
	Journals	Articles	Revenue	\$/article
\$1,400+	1	895	\$1,672,755	\$1,869
\$600-\$1.399	11	902	\$833,553	\$924
\$200-\$599	14	1,593	\$500,021	\$314
\$2-\$199	7	429	\$40,836	\$95
Free	61	3,088		
Total	94	6,907	\$3,047,165	\$441

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Society/govt	60	63%	5,528	46%
Univ/college	17	65%	753	42%
Miscellaneous	16	69%	607	38%
Open Access	1	100%	19	100%

Mostly society publishing, no traditional-publisher involvement.

**Starting Date**



Very little recent activity.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	22	23.4%	
Grew 10-49%	22	23.4%	46.8%
Even, $\pm 9.99\%$	23	24.5%	71.3%
Shrank 10-49%	18	19.1%	90.4%
Shrank 50%+	7	7.4%	97.9%

Much more rapid growth than rapid shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	48	79%	13
Journals/Pay	23	70%	10
Articles/Free	2,615	85%	473
Articles/Pay	3,279	86%	540

Astonishingly high delisting percentages, both free and pay.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	31	58%	3,997	44%
Zoology	6	17%	646	1%
Technology	4	0%	460	0%
Agriculture	6	67%	260	66%
Computer Science	6	83%	243	93%
Chemistry	2	100%	216	100%
Ecology	5	40%	186	30%
Mathematics	7	100%	183	100%
Engineering	3	67%	149	21%
Biology	5	60%	128	32%
Sociology	2	100%	93	100%
Physics	3	100%	73	100%
Anthropology	2	50%	56	63%
History	2	100%	54	100%
Psychology	2	100%	41	100%
Earth Sciences	1	100%	40	100%
Education	3	100%	27	100%
Philosophy	1	100%	20	100%
Religion	1	100%	16	100%
Other Sciences	1	0%	15	0%
Law	1	100%	4	100%

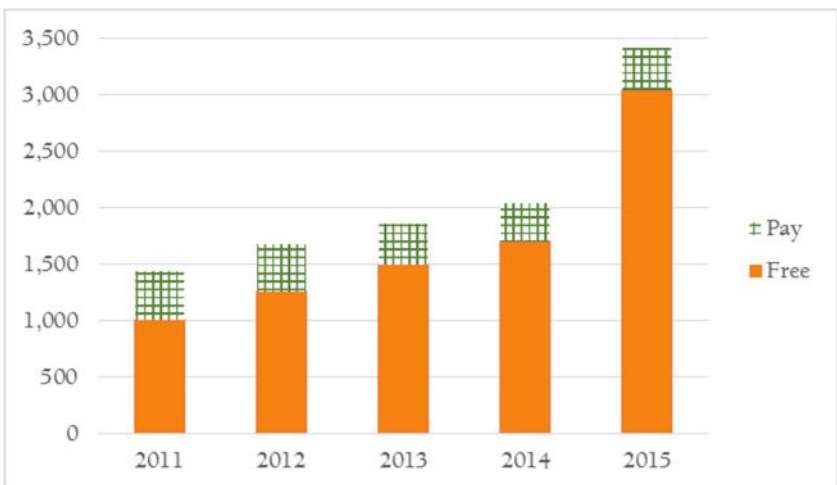
Mostly medical (more than half of all articles), with only five journals (242 articles) still in *DOAJ*.

# Malaysia

Malaysia has 63 OAWorld open access journals. Average cost per article in fee journals in 2015 was a low \$192; overall average a very low \$21.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	58	62	63	62	57
%Free	74%	74%	75%	74%	74%
Articles	3,419	2,042	1,864	1,683	1,437
%Free	89%	83%	80%	75%	70%



Predominantly free. The big jump in 2015 is one big journal with huge numbers of 2015 issues. (See note after Subjects.)

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	100%	1,780	100%
Med.: 60-149	7	71%	687	71%
Small: 20-59	18	78%	622	81%
Smallest: 0-19	37	73%	330	81%

One megajournal, no large journals.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	13	209	\$49,300	\$236
\$2-\$199	3	171	\$23,810	\$139
Free	47	3,039		
Total	63	3,419	\$73,110	\$21

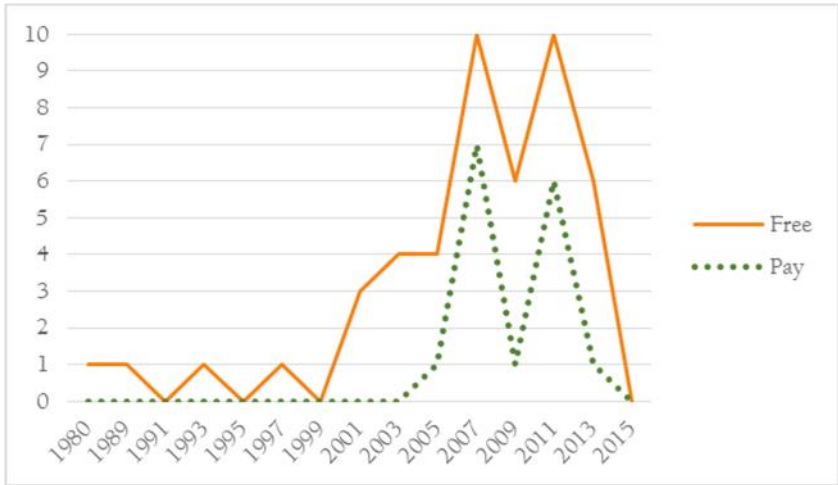
Few paid articles, mostly inexpensive.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	43	95%	2,948	99%
Society/govt	5	40%	221	38%
Miscellaneous	6	67%	171	27%
Open Access	9	0%	79	0%

Almost all university-based, almost all free.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	10	15.9%	
Grew 10-49%	14	22.2%	38.1%
Even, ±9.99%	15	23.8%	61.9%
Shrank 10-49%	16	25.4%	87.3%
Shrank 50%+	7	11.1%	98.4%

More fast growth than fast shrinkage, and positive overall.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	18	38%	29
Journals/Pay	2	13%	14
Articles/Free	2,305	76%	734
Articles/Pay	17	4%	363

The one megajournal was delisted, as were quite a few others.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Technology	4	100%	1,813	100%
Engineering	10	90%	322	98%
Language & Literature	6	83%	261	52%
Medicine	6	100%	257	100%
Biology	5	40%	156	21%
Earth Sciences	1	100%	147	100%
Sociology	3	100%	90	100%
Religion	3	33%	71	46%
Computer Science	10	40%	62	37%
Media & Communications	1	100%	55	100%
Education	3	100%	42	100%
Economics	4	50%	37	38%
Other Sciences	2	100%	30	100%
History	2	100%	27	100%
Physics	1	0%	26	0%
Mathematics	2	100%	23	100%

“Technology” for the megajournal is based on the journal’s name, but may be misleading.

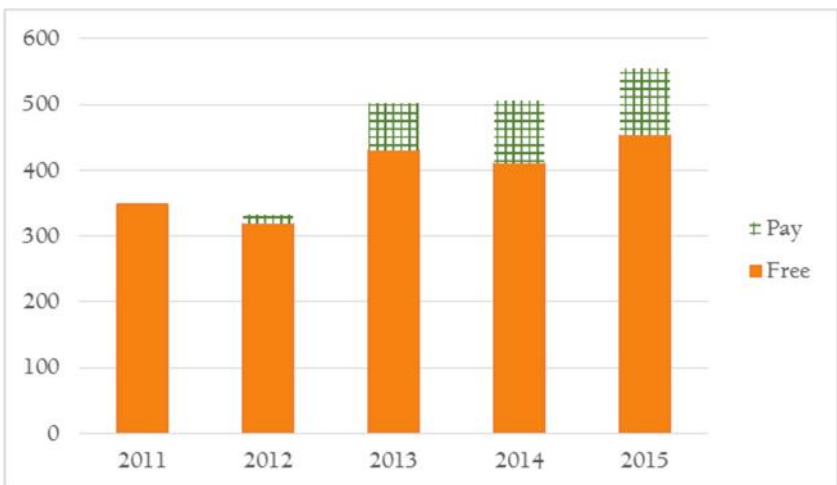
It’s possible that the 2011-2014 counts for that journal are low: it publishes many issues, and while those were counted for 2015, they were sampled and estimated for earlier years. Still, there were many *more* such issues in 2015.

# Nepal

Nepal has 17 OAWorld OA journals. In 2015, average cost per article in APC-charging journals was \$120; overall average was \$22.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	14	16	17	14	12
%Free	93%	94%	88%	93%	100%
Articles	555	506	503	333	349
%Free	82%	81%	86%	95%	100%



Free journals have gone back and forth: down a bit 2012, 2014.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	3	67%	321	69%
Small: 20-59	6	100%	174	100%
Smallest: 0-19	8	88%	60	100%

No large journals at all.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$2-\$199	2	101	\$12,120	\$120
Free	15	454		
Total	17	555	\$12,120	\$22

A bit misleading: one of two pay journals hasn't published anything since 2013.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	8	75%	385	74%
Society/govt	7	100%	133	100%
Univ/college	2	100%	37	100%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	3	17.6%	
Grew 10-49%	4	23.5%	41.2%
Even, $\pm 9.99\%$	1	5.9%	47.1%
Shrank 10-49%	5	29.4%	76.5%
Shrank 50%+	3	17.6%	94.1%

Most everything either grew or shrank, with more of the latter.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	9	60%	6
Journals/Pay	1	50%	1
Articles/Free	326	72%	128
Articles/Pay	0	0%	101

The delisted pay journal has been inactive for two years. Unfortunately, most free journals were also delisted.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	11	91%	301	100%
Other Sciences	1	0%	101	0%
Biology	1	100%	87	100%
Engineering	2	100%	47	100%
Sociology	1	100%	12	100%
Ecology	1	100%	7	100%

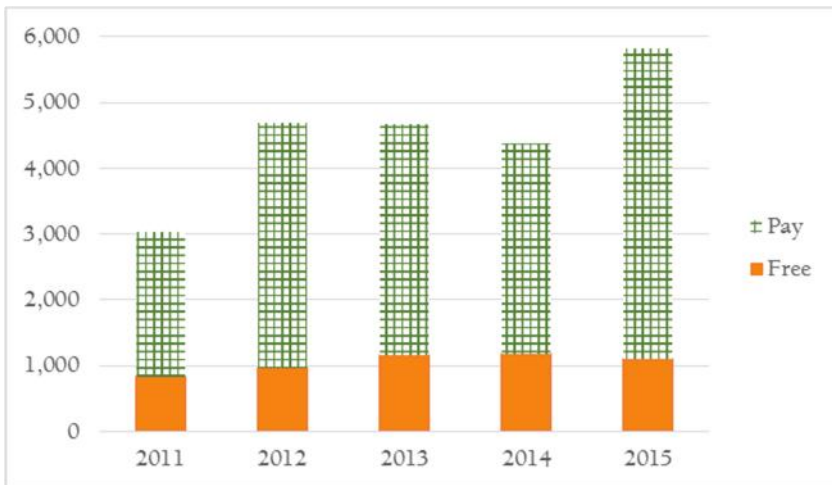
Mostly biomed with one pay multidisciplinary journal, started in 2013.

# Pakistan

Pakistan has 70 OAWorld open access journals. Average cost per article in 2015 for APC-charging journals: \$200. Average overall: \$162.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	61	66	66	51	43
%Free	51%	50%	48%	53%	53%
Articles	5,833	4,385	4,670	4,688	3,026
%Free	19%	27%	25%	20%	28%



After two years of slow decline, pay articles jumped in 2015.

**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	2	0%	2,948	0%
Large: 150-599	4	25%	1,074	29%
Med.: 60-149	8	13%	683	9%
Small: 20-59	23	65%	868	65%
Smallest: 0-19	33	58%	260	62%

Another country where only smaller journals are mostly free.

**APC Levels and Revenues**

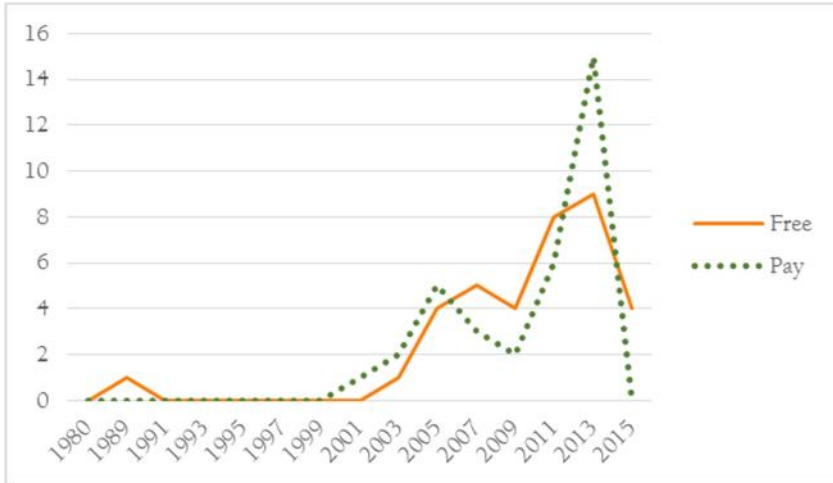
	Journals	Articles	Revenue	\$/article
\$600-\$1,399	1	60	\$39,000	\$650
\$200-\$599	13	1,319	\$489,334	\$371
\$2-\$199	20	3,354	\$417,191	\$124
Free	36	1,100		
Total	70	5,833	\$945,525	\$162

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Miscellaneous	24	50%	4,112	13%
Univ/college	27	70%	1,273	31%
Society/govt	10	50%	379	41%
Open Access	9	0%	69	0%

Independent journals dominate.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	9	12.9%	
Grew 10-49%	7	10.0%	22.9%
Even, ±9.99%	15	21.4%	44.3%
Shrank 10-49%	21	30.0%	74.3%
Shrank 50%+	14	20.0%	94.3%

Few growing journals, many shrinking ones.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	10	28%	26
Journals/Pay	15	44%	19
Articles/Free	129	12%	971
Articles/Pay	3,150	67%	1,583

Very high rate of delisting among pay journals.

**Subjects**

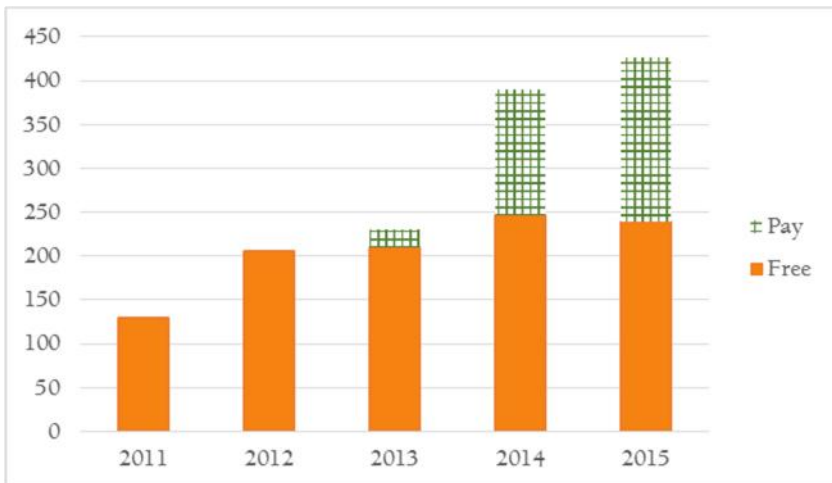
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Engineering	2	0%	2,352	0%
Medicine	21	67%	1,033	66%
Computer Science	6	33%	788	5%
Agriculture	10	20%	689	2%
Zoology	5	60%	277	22%
Economics	9	44%	209	49%
Biology	2	0%	98	0%
Political Science	2	100%	88	100%
Education	2	50%	85	12%
Sociology	3	67%	77	22%
Mathematics	1	100%	46	100%
History	1	0%	36	0%
Other Sciences	3	67%	18	0%
Chemistry	1	100%	17	100%
Media & Communications	1	100%	14	100%
Library Science	1	100%	6	100%

# Philippines

The Philippines have 12 OAWorld open access journals. Average cost per article in the APC-charging journal is \$70; overall average is \$31.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	11	11	12	11	8
%Free	91%	91%	92%	100%	100%
Articles	426	390	231	206	129
%Free	56%	63%	91%	100%	100%



The single APC-charging journal accounts for most growth.

**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	0%	187	0%
Med.: 60-149	1	100%	66	100%
Small: 20-59	5	100%	134	100%
Smallest: 0-19	5	100%	39	100%

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$2-\$199	1	187	\$13,090	\$70
Free	11	239		
Total	12	426	\$13,090	\$31

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	6	83%	267	30%
Society/govt	2	100%	92	100%
Open Access	3	100%	67	100%
Miscellaneous	1	100%	0	

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	1	8.3%	
Grew 10-49%	1	8.3%	16.7%
Even, $\pm$ 9.99%	3	25.0%	41.7%
Shrank 10-49%	6	50.0%	91.7%

No rapid shrinkage, very little growth.



**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	1	9%	10
Journals/Pay	0	0%	1
Articles/Free	0	0%	239
Articles/Pay	0	0%	187

The first perfect record: the *only* delisted journal hasn't published any articles since 2013.

**Subjects**

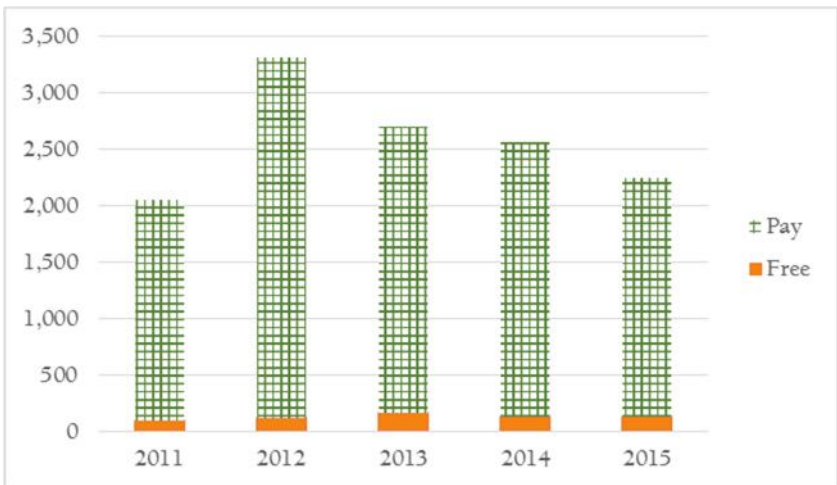
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellany	2	50%	187	0%
Medicine	2	100%	92	100%
Language & Literature	2	100%	59	100%
Education	1	100%	28	100%
Philosophy	1	100%	21	100%
Arts & Architecture	1	100%	12	100%
Sociology	1	100%	11	100%
Economics	1	100%	8	100%
Other Sciences	1	100%	8	100%

# Singapore

Singapore has 28 OAWorld OA journals. In 2015, average cost per article in fee journals was \$267; overall average was \$251.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	26	28	28	25	22
%Free	19%	25%	25%	28%	27%
Articles	2,248	2,562	2,706	3,319	2,055
%Free	6%	5%	6%	4%	4%



Very few free articles; steady decline since 2012.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	5	0%	1,111	0%
Med.: 60-149	9	0%	733	0%
Small: 20-59	9	22%	371	26%
Smallest: 0-19	5	100%	33	100%

The few free journals are small or very small.

**APC Levels and Revenues**

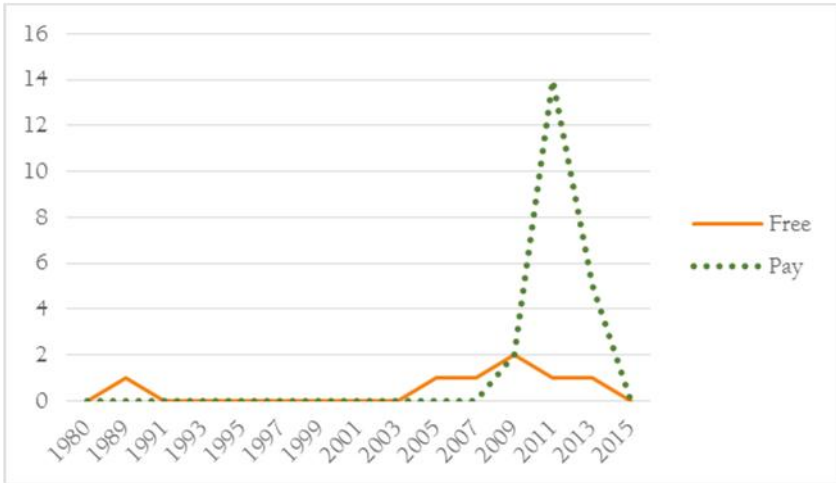
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	18	1623	\$544,950	\$336
\$2-\$199	3	494	\$19,760	\$40
Free	7	131		
Total	28	2,248	\$564,710	\$251

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	18	0%	1,623	0%
Traditional	3	0%	494	0%
Univ/college	5	100%	121	100%
Miscellaneous	1	100%	10	100%
Society/govt	1	100%	0	

Dominated by all-fee OA publishers.

## Starting Date



Almost all fee journals started 2010-2013.

## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	7.1%	
Grew 10-49%	5	17.9%	25.0%
Even, $\pm 9.99\%$	6	21.4%	46.4%
Shrank 10-49%	7	25.0%	71.4%
Shrank 50%+	8	28.6%	100.0%

High shrinkage, little growth.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	6	86%	1
Journals/Pay	21	100%	0
Articles/Free	112	85%	19
Articles/Pay	2,117	100%	0

Almost complete wipeout from DOAJ. Of four OA journals in DOAJ in May 2016, one is APCLand (Elsevier) and two are new 2016 listings.

**Subjects**

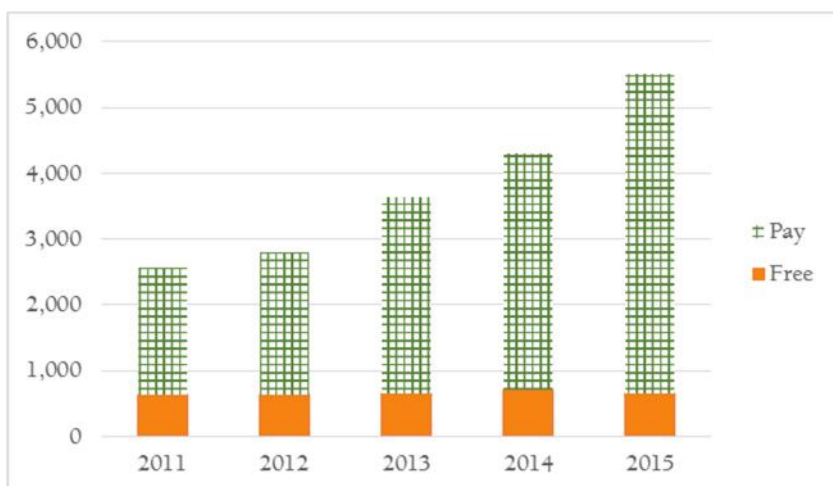
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Computer Science	7	0%	615	0%
Sociology	2	0%	536	0%
Economics	6	17%	466	2%
Engineering	3	0%	240	0%
Ecology	1	0%	180	0%
Mathematics	1	100%	49	100%
Zoology	1	100%	49	100%
Other Sciences	1	0%	35	0%
Physics	1	0%	29	0%
Education	2	50%	26	0%
Language & Literature	2	100%	23	100%
Library Science	1	100%	0	

# South Korea

South Korea has 46 OAWorld open access journals. Average cost per article in APC-charging journals in 2015: \$530. Overall average: \$467.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	44	45	44	44	41
%Free	43%	42%	41%	41%	41%
Articles	5,505	4,297	3,644	2,795	2,557
%Free	12%	17%	18%	23%	25%



Mostly pay journals, continuing growth, flat free-journal remnant.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	13	0%	4,152	0%
Med.: 60-149	9	33%	702	32%
Small: 20-59	16	69%	597	63%
Smallest: 0-19	8	75%	54	98%

Three-quarters of articles are in thirteen large fee journals.

**APC Levels and Revenues**

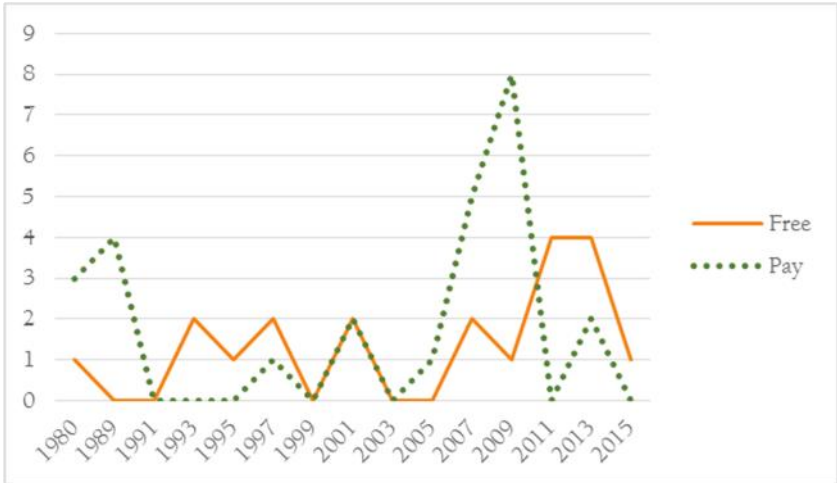
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	72	\$207,792	\$2,886
\$600-\$1,399	6	816	\$534,530	\$655
\$200-\$599	18	3,809	\$1,810,980	\$475
\$2-\$199	1	152	\$15,200	\$100
Free	20	656		
Total	46	5,505	\$2,568,502	\$467

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	12	17%	3,400	3%
Society/govt	20	45%	1,084	29%
Univ/college	8	63%	761	27%
Miscellaneous	6	67%	260	15%

Predominantly multijournal OA publishers—or, actually, one publisher.

**Starting Date**



That publisher started almost all of its fee journals in 2007 and 2009.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	8	17.4%	
Grew 10-49%	8	17.4%	34.8%
Even, ±9.99%	15	32.6%	67.4%
Shrank 10-49%	11	23.9%	91.3%
Shrank 50%+	3	6.5%	97.8%

More growth than shrinkage and a lot of steady journals.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	6	30%	14
Journals/Pay	10	38%	16
Articles/Free	165	25%	491
Articles/Pay	1,185	24%	3,664

Slightly high percentage of delisted mostly-smaller journals.



**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Computer Science	12	25%	2,716	3%
Medicine	13	46%	1,119	22%
Media & Communications	1	0%	490	0%
Technology	2	50%	409	1%
Biology	4	0%	235	0%
Mathematics	2	100%	142	100%
Zoology	2	0%	107	0%
Earth Sciences	2	50%	64	20%
Ecology	1	0%	52	0%
Engineering	1	100%	50	100%
Agriculture	1	100%	35	100%
Library Science	2	100%	30	100%
Chemistry	1	100%	22	100%
Physics	1	100%	22	100%

Nearly half of all 2015 articles are in computer science.

**A note on country names**

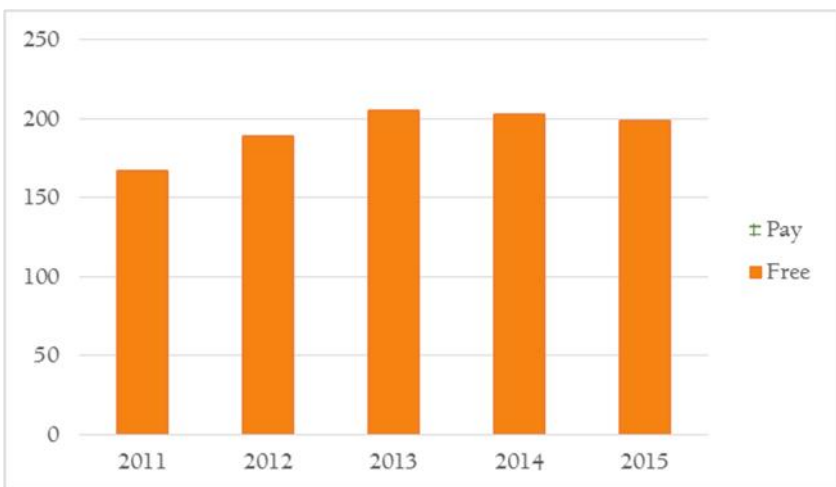
This chapter combines 40 journals listed under South Korea and six listed under Korea, Republic of.

# Sri Lanka

Sri Lanka has a dozen OAWorld open access journals—*none* of which have author processing charges, so most tables are omitted or modified.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	10	10	12	11	10
Articles	199	203	205	189	167



Tiny decline in 2015, even smaller one in 2014.

**Article Volume**

	Journals	Articles
Small: 20-59	3	105
Smallest: 0-19	9	94

**Publisher Category**

	Journals	Articles
Univ/college	9	125
Society/govt	3	74

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	1	8.3%	
Grew 10-49%	1	8.3%	16.7%
Even, ±9.99%	2	16.7%	33.3%
Shrank 10-49%	5	41.7%	75.0%
Shrank 50%+	1	8.3%	83.3%

Mostly shrinking.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	6	50%	6
Articles/Free	78	39%	121

All delisted journals were shrinking or inactive.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Medicine	7	130
Zoology	1	27
Agriculture	1	17
Ecology	1	17
Mathematics	1	8
Computer Science	1	0

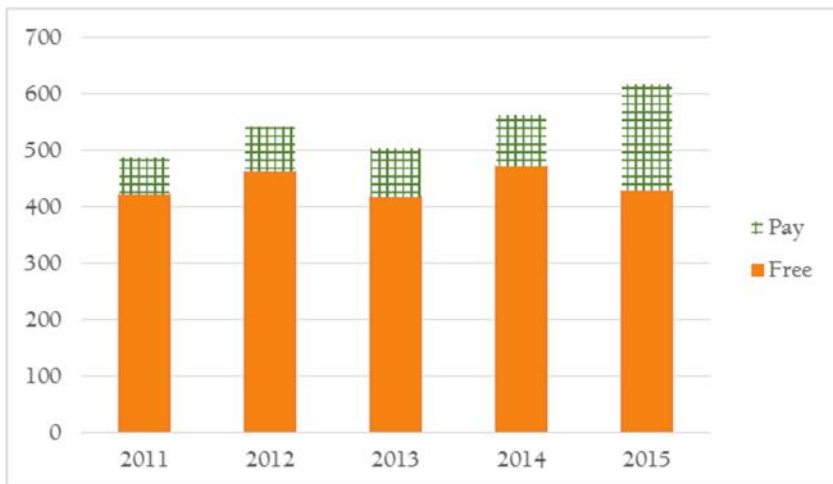
# Taiwan, Province of China

**Note:** I use the country name as given in DOAJ.

Taiwan has 26 OAWorld OA journals. Average cost per article in APC-charging journals in 2015: \$117. Overall average: \$36.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	26	26	25	24	24
%Free	77%	77%	80%	79%	79%
Articles	617	564	504	542	488
%Free	69%	84%	83%	85%	87%



Still mostly free but with growing pay-journal component.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	1	0%	82	0%
Small: 20-59	13	85%	401	81%
Smallest: 0-19	12	75%	134	76%

No large journals; even the one medium (fee) journal is smallish.

**APC Levels and Revenues**

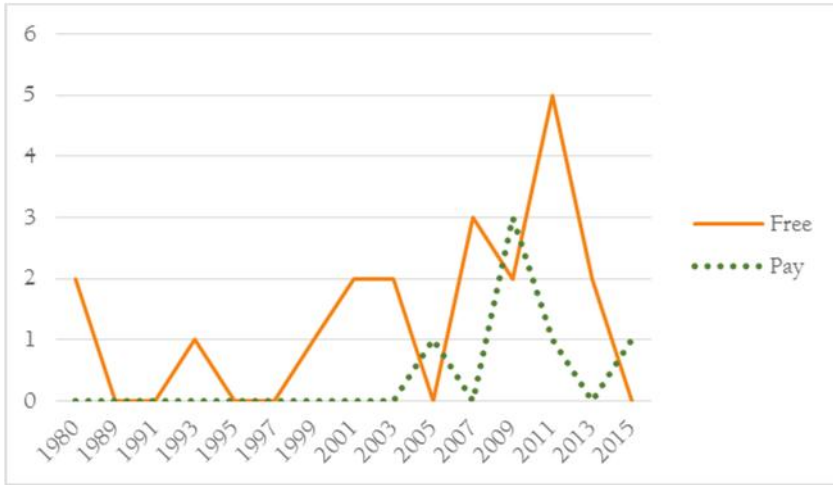
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	3	46	\$16,617	\$361
\$2-\$199	3	143	\$5,578	\$39
Free	20	428		
Total	26	617	\$22,195	\$36

Most fees are fairly nominal.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	11	64%	297	58%
Univ/college	12	83%	256	75%
Traditional	1	100%	44	100%
Society/govt	2	100%	20	100%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	7.7%	
Grew 10-49%	4	15.4%	23.1%
Even, ±9.99%	13	50.0%	73.1%
Shrank 10-49%	6	23.1%	96.2%
Shrank 50%+	1	3.8%	100.0%

Mostly even or growing, although shrinkage outweighs growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	8	40%	12
Journals/Pay	0	0%	6
Articles/Free	166	39%	262
Articles/Pay	0	0%	189

Higher than usual percentage of delisted free journals, but all APC-charging journals remain in *DOAJ*.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Computer Science	3	67%	113	27%
Other Sciences	3	67%	107	52%
Medicine	2	100%	84	100%
Education	5	40%	74	57%
Mathematics	2	100%	63	100%
Library Science	5	100%	56	100%
Media & Communications	1	100%	31	100%
Economics	1	0%	24	0%
Technology	1	100%	24	100%
Arts & Architecture	1	100%	23	100%
Engineering	1	100%	10	100%
Language & Literature	1	100%	8	100%

Another Asian country where computer science has the most activity, (Yes, there really are five OA library science journals in Taiwan.)

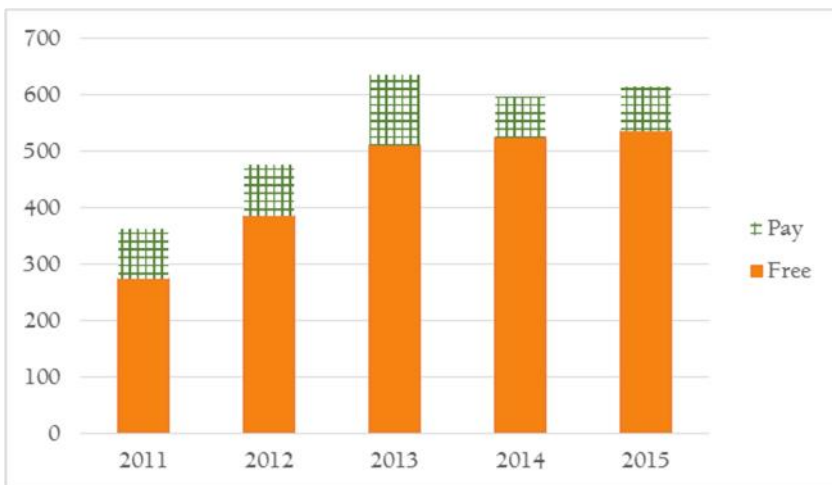


# Thailand

Thailand has 15 OAWorld OA journals. In 2015, average cost per article in APC-charging journals was \$247; overall average was \$33.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	14	14	14	12	12
%Free	86%	86%	86%	83%	83%
Articles	616	598	637	476	363
%Free	87%	88%	80%	81%	75%



Free journals continue to grow; pay journals have been erratic.

**Article Volume**

	Journals	%Free	Articles	%Free
Med.: 60-149	4	100%	319	100%
Small: 20-59	7	71%	244	67%
Smallest: 0-19	4	100%	53	100%

No large journals, and both APC-charging journals are small.

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$200-\$599	2	81	\$20,040	\$247
Free	13	535		
Total	15	616	\$20,040	\$33

Both APC-charging journals have low rather than nominal fees.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	8	88%	384	91%
Miscellaneous	6	83%	194	75%
Society/govt	1	100%	38	100%

University publications dominate.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	13.3%	
Grew 10-49%	3	20.0%	33.3%
Even, $\pm 9.99\%$	5	33.3%	66.7%
Shrank 10-49%	3	20.0%	86.7%
Shrank 50%+	1	6.7%	93.3%

Two-thirds even or growing, a good figure.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	3	23%	10
Journals/Pay	1	50%	1
Articles/Free	75	14%	460
Articles/Pay	48	59%	33

Slightly low free-journal delisting rates.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Other Sciences	6	67%	298	73%
Engineering	2	100%	97	100%
Biology	1	100%	75	100%
Medicine	1	100%	38	100%
Psychology	2	100%	37	100%
Ecology	1	100%	30	100%
Sociology	1	100%	25	100%
Education	1	100%	16	100%

A fair number of multidisciplinary science journals account for the largest group of articles and both APC-charging journals.

# Other Asian Countries

Six other Asian countries publish a total of seven OAWorld open access journals, with a total of 265 articles in 2015, 230 in 2014, 218 in 2013, 174 in 2012 and 143 in 2011.

Six of the seven journals are free; one, started in 2014, charges \$150 fees. Two are medium-sized, one (the fee journal) is small and four are very small.

One was shrinking rapidly (and was delisted). The rest, all still in DOAJ, include one with slow shrinkage, one even, two growing moderately and one growing rapidly.

## Country Summaries

### **Bhutan**

One free university-published sociology journal with four 2015 articles, down from eight in 2014. Now gray OA.

### **Brunei Darussalam**

One free government medical journal with 65 articles in 2015, up from 41 in 2014.

### **Cambodia**

One free university-published biology journal with ten articles in 2015, up from eight in 2014.

**Korea, Democratic People's Republic of**

One free institute-published engineering journal with 121 articles in 2015, up from 115 in 2014.

**Kyrgyzstan**

Two free university-published journals, one economics and one engineering, with 32 articles in both 2015 and 2014.

**Viet Nam**

One APC-charging independent medical journal with 33 articles in 2015, up from 26 in 2014.

# Eastern Europe

Eastern Europe has 1,474 OAWorld open access journals. In 2015, average cost per article in fee journals was \$236; overall average was \$60.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	1,398	1,426	1,379	1,243	1,108
%Free	88%	89%	89%	89%	88%
Articles	61,126	63,247	62,178	56,466	49,165
%Free	75%	74%	75%	77%	78%

The 2015 decline is in both free and pay journals.

## Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	7	29%	6,785	21%
Large: 150-599	36	75%	8,407	70%
Med.: 60-149	215	74%	18,658	73%
Small: 20-59	630	90%	21,200	90%
Smallest: 0-19	586	94%	6,076	94%

Free journals dominate in all but the largest category.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	3	262	\$459,992	\$1,756
\$600-\$1.399	11	839	\$774,632	\$923
\$200-\$599	47	4,622	\$1,571,042	\$340
\$2-\$199	105	9,744	\$840,671	\$86
Free	1,308	45,659		
<b>Total</b>	<b>1,474</b>	<b>61,126</b>	<b>\$3,646,337</b>	<b>\$60</b>

Unusual in that most revenue is in low-priced journals.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	739	90%	30,706	84%
Miscellaneous	310	85%	16,212	54%
Traditional	237	93%	6,205	86%
Society/govt	133	86%	5,832	74%
Open Access	55	80%	2,171	67%

Mostly university and college journals.

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	188	12.8%	
Grew 10-49%	295	20.0%	32.8%
Even, ±9.99%	372	25.2%	58.0%
Shrank 10-49%	393	26.7%	84.7%
Shrank 50%+	178	12.1%	96.7%

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	247	19%	1,061
Journals/Pay	19	11%	147
Articles/Free	8,889	19%	36,770
Articles/Pay	2,660	17%	12,807

Relatively low rates of delisting, especially among pay journals.

### Subjects

Although medical journals form the largest single group, they're much less major than in OAWorld as a whole.



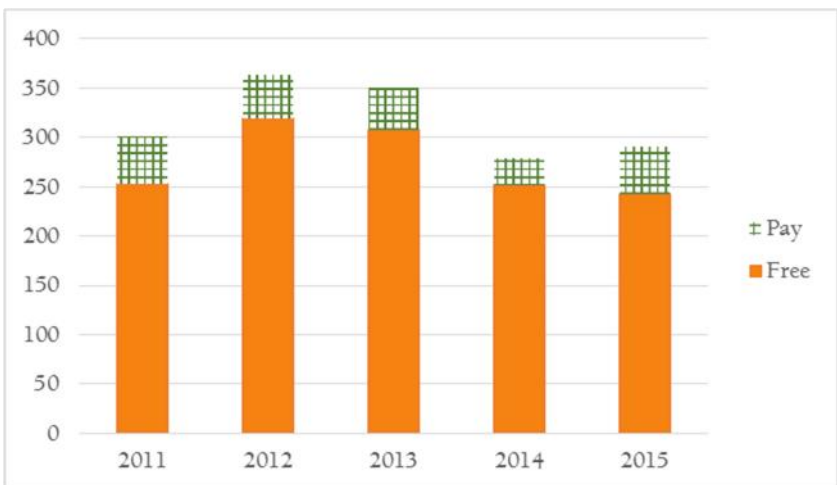
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	153	84%	6,934	80%
Economics	163	80%	6,128	65%
Miscellany	27	63%	4,689	29%
Agriculture	96	77%	3,867	65%
Engineering	75	91%	3,515	83%
Sociology	52	92%	3,244	64%
Chemistry	35	86%	2,708	55%
Technology	44	86%	2,631	82%
Other Sciences	17	76%	2,550	52%
Language & Literature	96	99%	2,445	98%
Education	52	92%	2,221	96%
Physics	31	94%	2,133	97%
Mathematics	64	95%	2,112	91%
Anthropology	68	93%	2,017	85%
Zoology	43	72%	1,673	56%
Computer Science	57	91%	1,580	86%
Earth Sciences	70	99%	1,482	99%
Biology	41	76%	1,480	71%
Ecology	41	85%	1,265	80%
Political Science	58	98%	1,138	99%
Arts & Architecture	31	97%	981	90%
Law	29	100%	957	100%
History	31	100%	897	100%
Psychology	24	100%	848	100%
Philosophy	31	97%	839	95%
Religion	15	100%	343	100%
Media & Communications	16	100%	235	100%
Library Science	14	100%	214	100%

# Bosnia and Herzegovina

Bosnia and Herzegovina have 15 OAWorld journals. In 2015, average cost per article in the APC-charging journal: \$324. Overall average \$53.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	14	13	14	14	12
%Free	93%	92%	93%	93%	92%
Articles	290	279	350	363	301
%Free	84%	90%	88%	88%	84%



Still down from 2012 high but starting to recover.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	6	83%	194	76%
Smallest: 0-19	9	100%	96	100%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	47	\$15,228	\$324
Free	14	243		
Total	15	290	\$15,228	\$53

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	8	100%	111	100%
Miscellaneous	3	100%	80	100%
Society/govt	2	50%	73	36%
Traditional	2	100%	26	100%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	26.7%	
Grew 10-49%	1	6.7%	33.3%
Even, ±9.99%	2	13.3%	46.7%
Shrank 10-49%	5	33.3%	80.0%
Shrank 50%+	1	6.7%	86.7%

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	3	21%	11
Journals/Pay	0	0%	1
Articles/Free	71	29%	172
Articles/Pay	0	0%	47

Of the three delisted journals, one was moderately growing, one was slightly declining and one had no articles later than 2013.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	7	86%	140	66%
Anthropology	2	100%	63	100%
Economics	3	100%	42	100%
Miscellany	1	100%	26	100%
Engineering	1	100%	10	100%
Earth Sciences	1	100%	9	100%

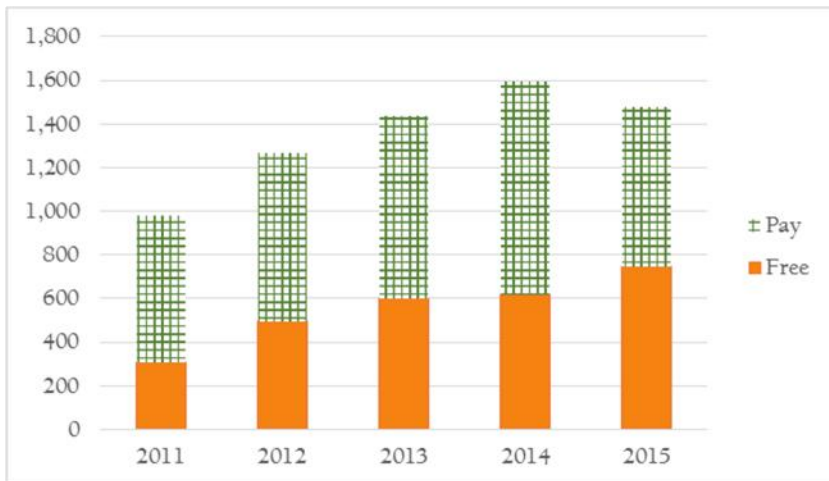
Medicine biggest as usual.

# Bulgaria

Bulgaria has 34 OAWorld open access journals. In 2015 the average cost per article in APC-charging journals was \$277; overall average \$138.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	34	32	29	28	21
%Free	59%	59%	62%	64%	57%
Articles	1,479	1,593	1,435	1,266	981
%Free	50%	39%	42%	39%	31%



Steady growth in free-journal articles, 2015 drop in fee articles.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	50%	524	41%
Med.: 60-149	4	25%	336	27%
Small: 20-59	13	85%	443	80%
Smallest: 0-19	15	47%	176	47%

**APC Levels and Revenues**

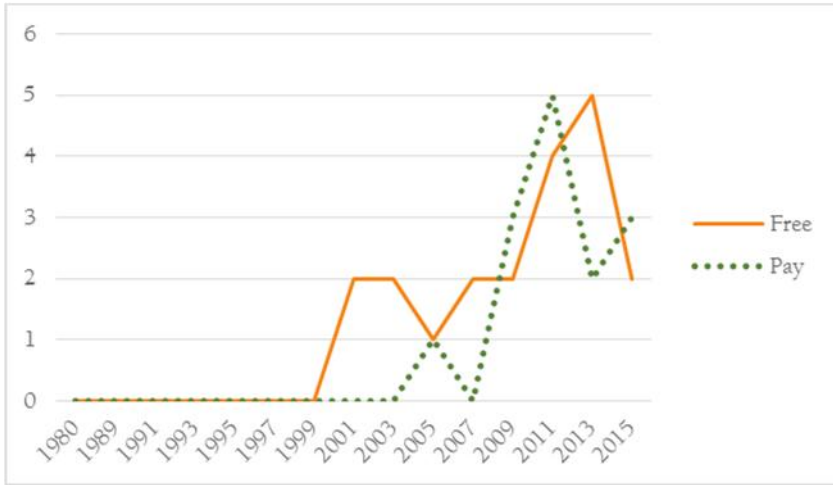
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	8	466	\$165,813	\$356
\$2-\$199	6	268	\$37,840	\$141
Free	20	745		
Total	34	1,479	\$203,653	\$138

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	13	15%	595	6%
Univ/college	8	100%	494	100%
Miscellaneous	10	80%	330	52%
Society/govt	2	50%	35	60%
Open Access	1	100%	25	100%

One traditional publisher accounts for 12 of the 13 journals.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	8.8%	
Grew 10-49%	8	23.5%	32.4%
Even, ±9.99%	9	26.5%	58.8%
Shrank 10-49%	11	32.4%	91.2%
Shrank 50%+	1	2.9%	94.1%

More shrinkage than growth, very little extreme change.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	1	5%	19
Journals/Pay	0	0%	14
Articles/Free	15	2%	730
Articles/Pay	0	0%	734

Near-perfect retention, with only one very small delisted journal.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Zoology	6	50%	407	17%
Other Sciences	1	100%	215	100%
Biology	6	17%	212	25%
Medicine	4	50%	119	31%
Computer Science	2	100%	112	100%
Mathematics	1	0%	91	0%
Technology	2	100%	70	100%
Agriculture	2	0%	64	0%
Miscellany	1	100%	42	100%
Language & Literature	2	100%	41	100%
Ecology	2	50%	32	97%
Economics	1	100%	28	100%
Anthropology	1	100%	21	100%
Education	1	100%	15	100%
Library Science	1	100%	6	100%
Physics	1	100%	4	100%

Zoology as the most popular topic, mostly in three pay journals.

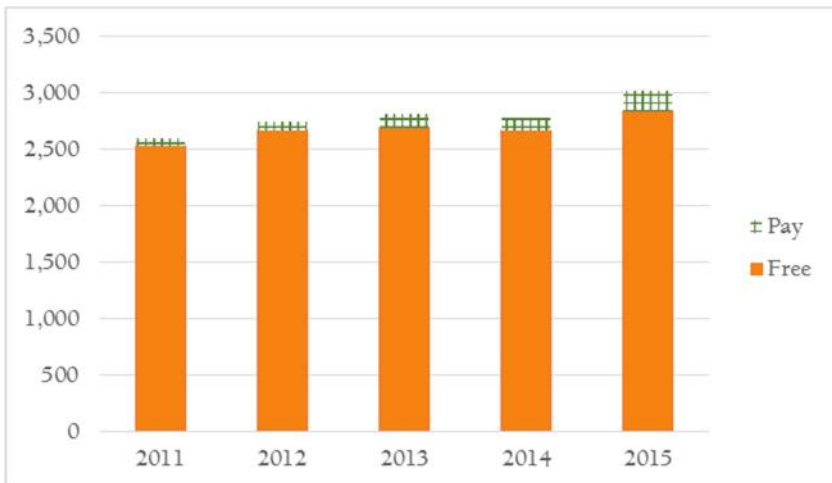


# Croatia

Croatia has 103 OAWorld open access journal. Average 2015 cost per article in APC-charging journals: \$356. Overall average: a very low \$22.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	95	102	101	100	99
%Free	95%	95%	96%	97%	97%
Articles	3,022	2,786	2,814	2,743	2,599
%Free	94%	96%	96%	97%	97%



After small dip in 2014, growth resumed in 2015.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	100%	215	100%
Med.: 60-149	12	92%	884	92%
Small: 20-59	52	92%	1,556	92%
Smallest: 0-19	38	100%	367	100%

Most articles are in small journals.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	38	\$36,708	\$966
\$200-\$599	1	26	\$15,574	\$599
\$2-\$199	3	121	\$13,603	\$112
Free	98	2,837		
Total	103	3,022	\$65,885	\$22

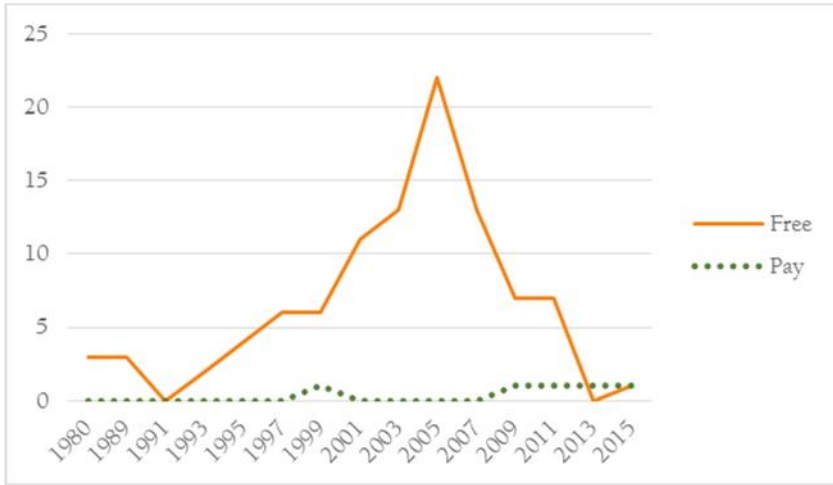
Most potential revenues go to one small technology journal.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	52	98%	1,489	99%
Society/govt	28	100%	784	100%
Miscellaneous	20	85%	699	80%
Open Access	2	50%	37	30%
Traditional	1	100%	13	100%

University publications account for just under half of all articles.

**Starting Date**



An unusual pattern, with most new journals starting in 2000-2007 and almost none since 2011.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	22	21.4%	
Grew 10-49%	27	26.2%	47.6%
Even, ±9.99%	19	18.4%	66.0%
Shrank 10-49%	22	21.4%	87.4%
Shrank 50%+	12	11.7%	99.0%

Mostly positive, with lots of growth and little rapid shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	26	27%	72
Journals/Pay	0	0%	5
Articles/Free	599	21%	2,238
Articles/Pay	0	0%	185

Fairly typical free delisting rate, but all pay journals still in *DOAJ*.

## Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	10	100%	457	100%
Agriculture	10	100%	350	100%
Engineering	6	83%	327	92%
Sociology	4	100%	248	100%
Economics	10	90%	225	70%
Anthropology	7	100%	154	100%
Language & Literature	5	100%	154	100%
Ecology	5	80%	131	75%
Chemistry	3	100%	109	100%
Technology	3	67%	104	63%
Earth Sciences	7	86%	100	80%
Law	3	100%	100	100%
History	4	100%	96	100%
Arts & Architecture	3	100%	63	100%
Library Science	3	100%	52	100%
Biology	1	100%	48	100%
Political Science	3	100%	48	100%
Computer Science	2	100%	47	100%
Religion	2	100%	43	100%
Zoology	2	100%	42	100%
Media & Communications	2	100%	37	100%
Mathematics	2	100%	26	100%
Psychology	1	100%	25	100%
Miscellany	1	100%	15	100%
Philosophy	3	100%	14	100%
Education	1	100%	7	100%

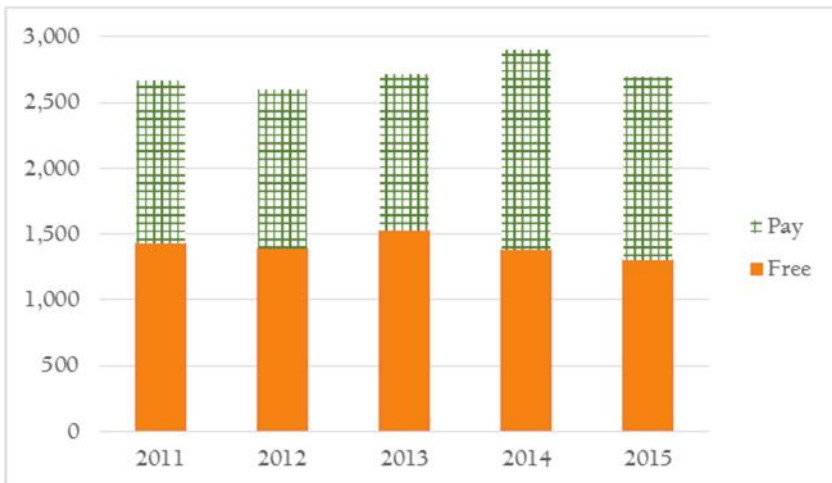
Medical first is not unusual; all of it free is.

# Czech Republic

The Czech Republic has 87 OAWorld open access journals. 2015 average cost per article in fee journals: \$434. Overall average: \$224.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	85	84	83	80	71
%Free	73%	73%	72%	71%	70%
Articles	2,696	2,899	2,720	2,600	2,665
%Free	48%	48%	56%	53%	54%



Free journals peaked in 2013, pay journals in 2014.

### Article Volume

	Journals	%Free	Articles	%Free
Large: 150-599	2	0%	450	0%
Med.: 60-149	9	33%	774	26%
Small: 20-59	31	77%	967	71%
Smallest: 0-19	45	82%	505	82%

Classic pattern: the larger the journal, the more likely it charges APCs.

### APC Levels and Revenues

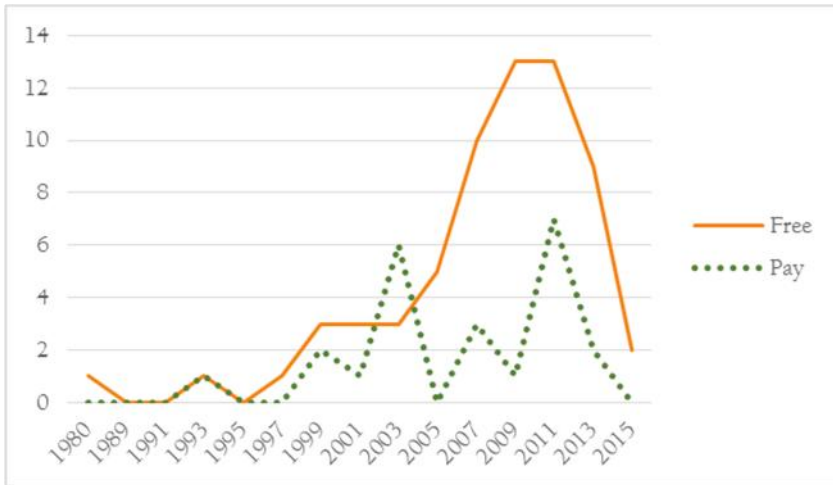
	Journals	Articles	Revenue	\$/article
\$1,400+	1	160	\$293,120	\$1,832
\$600-\$1,399	1	88	\$58,520	\$665
\$200-\$599	12	696	\$187,956	\$270
\$2-\$199	9	448	\$65,006	\$145
Free	64	1,304		
Total	87	2,696	\$604,602	\$224

### Publisher Category

Category	Journals	%Free	Articles	%Free
Univ/college	52	71%	1,524	53%
Miscellaneous	19	63%	730	30%
Society/govt	8	88%	324	51%
Traditional	6	100%	82	100%
Open Access	2	100%	36	100%

Typically, OA and traditional publishers *don't* charge.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	12	13.8%	
Grew 10-49%	13	14.9%	28.7%
Even, ±9.99%	22	25.3%	54.0%
Shrank 10-49%	28	32.2%	86.2%
Shrank 50%+	9	10.3%	96.6%

More shrinkage than growth, but more rapid growth than shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	14	22%	50
Journals/Pay	5	22%	18
Articles/Free	208	16%	1,096
Articles/Pay	638	46%	754

Moderately low journal delisting rate, but a high rate of loss among APC-charging journals.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	13	38%	567	16%
Other Sciences	2	50%	355	18%
Engineering	6	83%	338	62%
Economics	14	79%	212	82%
Chemistry	3	67%	198	19%
Medicine	6	50%	188	36%
Miscellany	3	0%	105	0%
Political Science	5	100%	84	100%
Anthropology	5	100%	77	100%
Computer Science	3	100%	64	100%
Language & Literature	4	100%	61	100%
Zoology	1	0%	60	0%
Education	3	100%	57	100%
Mathematics	2	100%	52	100%
Earth Sciences	3	100%	47	100%
Physics	2	100%	47	100%
Ecology	2	50%	39	77%
Psychology	2	100%	37	100%
Media & Communications	2	100%	35	100%
Biology	1	100%	26	100%
Technology	2	100%	21	100%
Sociology	2	50%	17	71%
Library Science	1	100%	9	100%

Lots of agriculture, not much medicine.

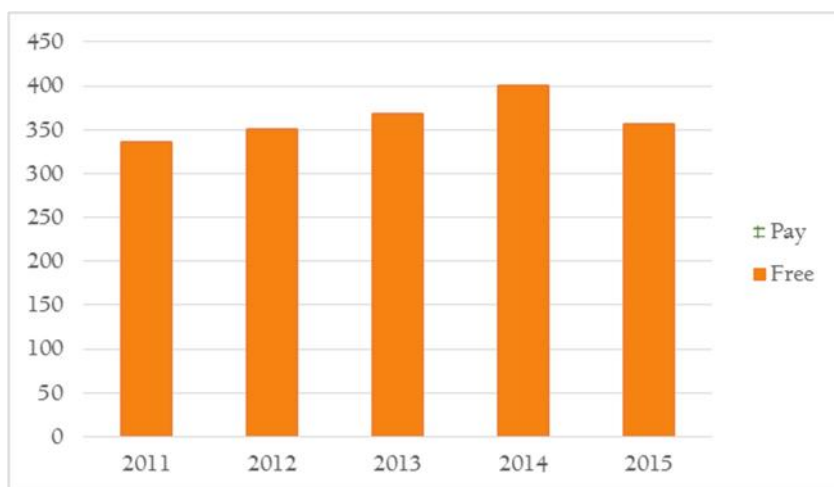


# Estonia

Estonia has 22 OAWorld open access journals, *none* of which has article processing charges, so most tables are modified or omitted.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	19	20	22	20	19
Articles	356	400	368	351	336



Two journals account for most of the dip in 2015.

**Article Volume**

	Journals	Articles
Small: 20-59	7	203
Smallest: 0-19	15	153

All small journals, some smaller than others.

**Publisher Category**

Category	Journals	Articles
Univ/college	11	177
Miscellaneous	7	143
Society/govt	3	36
Open Access	1	0

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 10-49%	4	18.2%	18.2%
Even, $\pm$ 9.99%	9	40.9%	59.1%
Shrank 10-49%	4	18.2%	77.3%
Shrank 50%+	3	13.6%	90.9%

High degree of stability but more shrinkage than growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	5	23%	17
Articles/Free	88	25%	268

Slightly low delisting rate.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Language & Literature	7	137
Anthropology	3	69
Earth Sciences	1	36
Agriculture	3	30
Education	1	21
Political Science	1	15
Law	1	14
Philosophy	1	13
Economics	1	11
History	2	10
Mathematics	1	0

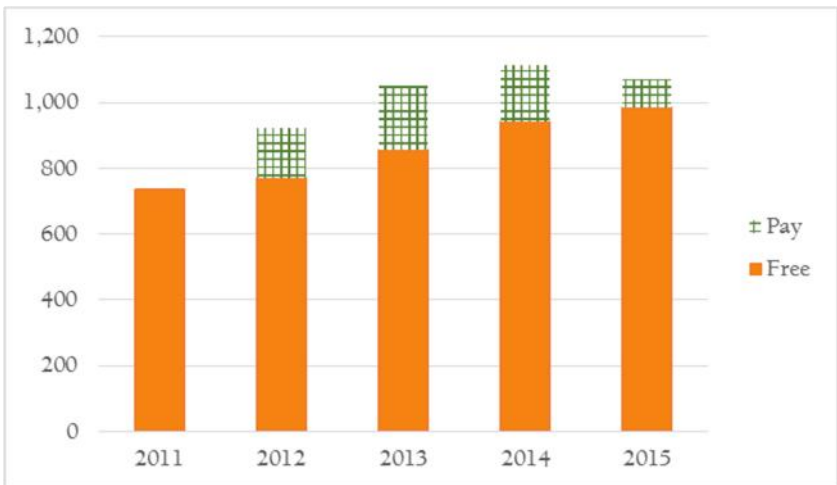
Definitely not the usual suspects: no medicine, and four out of five 2015 articles are in the humanities and social sciences.

# Hungary

Hungary has 33 OAWorld OA journals. In 2015, average cost per article in the single fee-charging journal was \$109; overall average was \$9.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	32	32	31	30	27
%Free	97%	97%	97%	97%	100%
Articles	1,070	1,114	1,052	921	735
%Free	92%	85%	81%	83%	100%



Free journals continue to grow, but the pay journal had a slow 2015.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	6	83%	579	85%
Small: 20-59	12	100%	355	100%
Smallest: 0-19	15	100%	136	100%

Another country with no large OA journals.

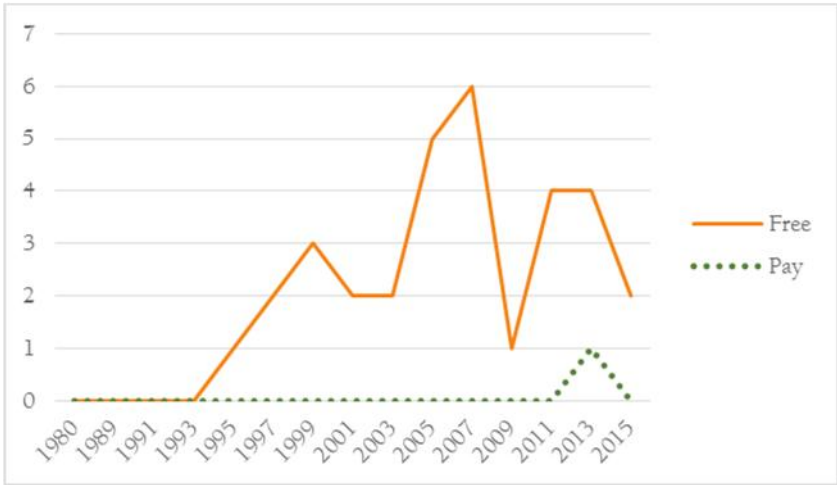
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$2-\$199	1	84	\$9,156	\$109
Free	32	986		
Total	33	1,070	\$9,156	\$9

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	19	100%	631	100%
Miscellaneous	7	86%	275	69%
Society/govt	6	100%	154	100%
Traditional	1	100%	10	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	5	15.2%	
Grew 10-49%	7	21.2%	36.4%
Even, $\pm 9.99\%$	6	18.2%	54.5%
Shrank 10-49%	10	30.3%	84.8%
Shrank 50%+	4	12.1%	97.0%

Slightly more shrinkage than growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	11	34%	21
Journals/Pay	0	0%	1
Articles/Free	328	33%	658
Articles/Pay	0	0%	84

Slightly high delisting percentage among free journals.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Mathematics	3	100%	235	100%
Technology	2	100%	208	100%
Ecology	3	100%	95	100%
Chemistry	2	50%	94	11%
Language & Literature	6	100%	92	100%
Agriculture	3	100%	69	100%
Medicine	3	100%	51	100%
History	1	100%	49	100%
Engineering	2	100%	37	100%
Earth Sciences	1	100%	30	100%
Zoology	1	100%	25	100%
Economics	1	100%	23	100%
Sociology	1	100%	22	100%
Education	1	100%	16	100%
Media & Communications	1	100%	15	100%
Anthropology	1	100%	9	100%
Political Science	1	100%	0	

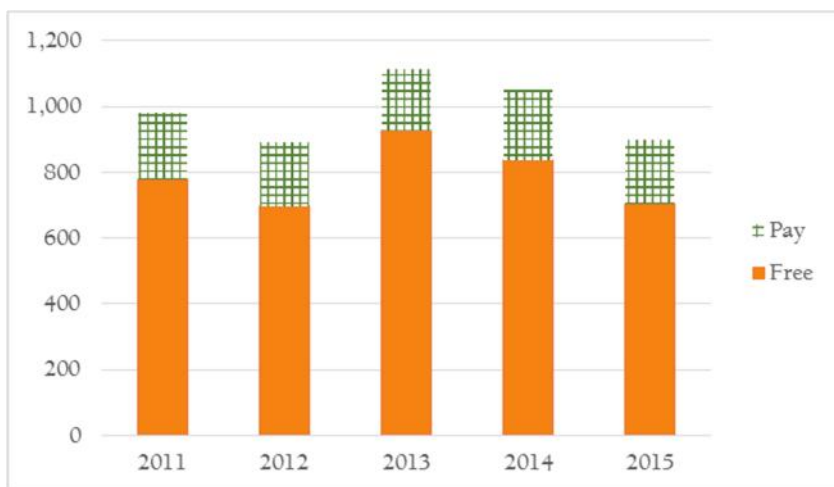
An interesting mix at the top: math, technology, ecology and chemistry.

# Lithuania

Lithuania has 35 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$368. Overall average: \$79.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	33	33	34	29	28
%Free	91%	91%	91%	90%	93%
Articles	898	1,051	1,113	893	982
%Free	79%	80%	83%	78%	79%



Most of the 2015 decline is among free journals.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	3	67%	260	56%
Small: 20-59	13	85%	418	81%
Smallest: 0-19	19	100%	220	100%

**APC Levels and Revenues**

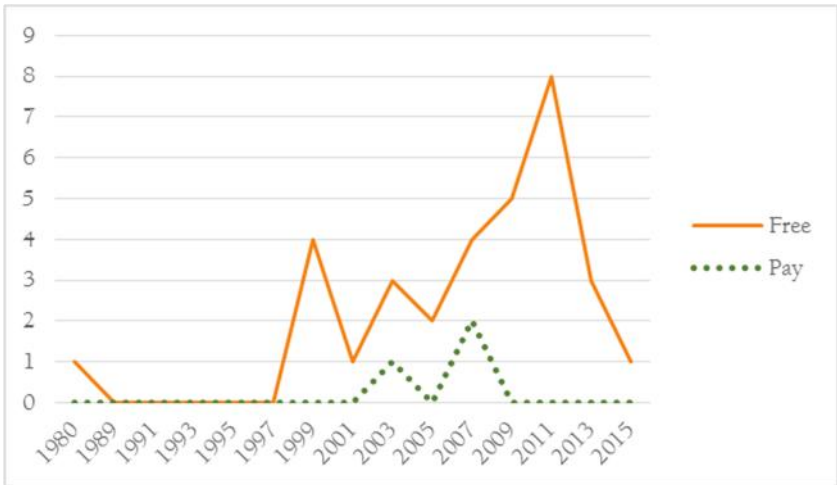
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	114	\$63,612	\$558
\$2-\$199	2	78	\$7,122	\$91
Free	32	706		
Total	35	898	\$70,734	\$79

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	29	90%	815	76%
Miscellaneous	5	100%	67	100%
Open Access	1	100%	16	100%

Primarily university publishing; somewhat unusual in that all APC-charging journals are from universities.

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	5.7%	
Grew 10-49%	7	20.0%	25.7%
Even, $\pm 9.99\%$	9	25.7%	51.4%
Shrank 10-49%	11	31.4%	82.9%
Shrank 50%+	4	11.4%	94.3%

Considerably more shrinkage than growth.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	6	19%	26
Journals/Pay	0	0%	3
Articles/Free	102	14%	604
Articles/Pay	0	0%	192

Low delisting percentage, even lower article percentage.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Economics	4	75%	139	63%
Language & Literature	6	100%	123	100%
Technology	1	0%	114	0%
Education	2	100%	84	100%
Biology	1	100%	82	100%
Mathematics	3	100%	65	100%
Sociology	3	67%	50	46%
Library Science	2	100%	41	100%
Law	2	100%	35	100%
Political Science	3	100%	35	100%
Ecology	2	100%	31	100%
Computer Science	2	100%	25	100%
Religion	1	100%	23	100%
Medicine	1	100%	21	100%
Media & Communications	1	100%	17	100%
Psychology	1	100%	13	100%

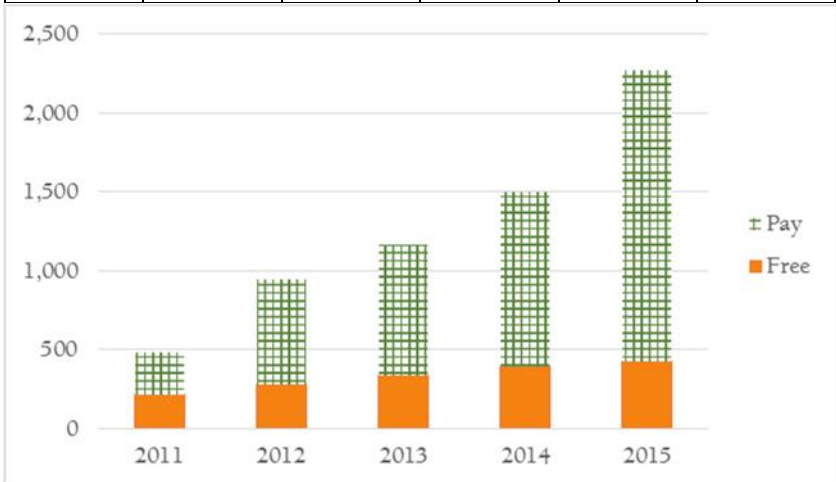
Varied coverage, strong on HSS and low on medicine.

# Macedonia, the Former Yugoslav Republic of

Macedonia has 19 OAWorld OA journals. In 2015, average cost per article in APC-charging journals was \$118; overall average was \$96.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	18	17	17	15	14
%Free	72%	76%	76%	80%	79%
Articles	2,268	1,498	1,168	943	481
%Free	19%	26%	29%	30%	44%



Free journals have grown each year, but one fast-growing APC-charging multidisciplinary journal is much larger than all of them put together. (Note: pre-2015 counts for that complex journal are approximations.)

### Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	1	0%	1,645	0%
Med.: 60-149	3	67%	273	53%
Small: 20-59	8	88%	290	84%
Smallest: 0-19	7	71%	60	65%

### APC Levels and Revenues

	Journals	Articles	Revenue	\$/article
\$200-\$599	3	186	\$45,310	\$244
\$2-\$199	2	1,655	\$172,150	\$104
Free	14	427		
Total	19	2,268	\$217,460	\$96

### Publisher Category

Category	Journals	%Free	Articles	%Free
Miscellaneous	5	40%	1,915	5%
Univ/college	9	89%	183	95%
Society/govt	4	100%	159	100%
Open Access	1	0%	11	0%

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	15.8%	
Grew 10-49%	4	21.1%	36.8%
Even, $\pm 9.99\%$	4	21.1%	57.9%
Shrank 10-49%	3	15.8%	73.7%
Shrank 50%+	3	15.8%	89.5%

More growth than shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	4	29%	10
Journals/Pay	0	0%	5
Articles/Free	114	27%	313
Articles/Pay	0	0%	1,841

Typical free-journal delisting rate, with no pay-journal losses.

**Subjects**

Subject	Journals	%Free	Articles	%Free
Miscellany	1	0%	1,645	0%
Anthropology	5	100%	192	100%
Medicine	3	67%	158	18%
Sociology	2	100%	82	100%
Biology	2	0%	57	0%
Chemistry	1	100%	41	100%
Economics	1	100%	33	100%
Political Science	3	67%	30	67%
Zoology	1	100%	30	100%

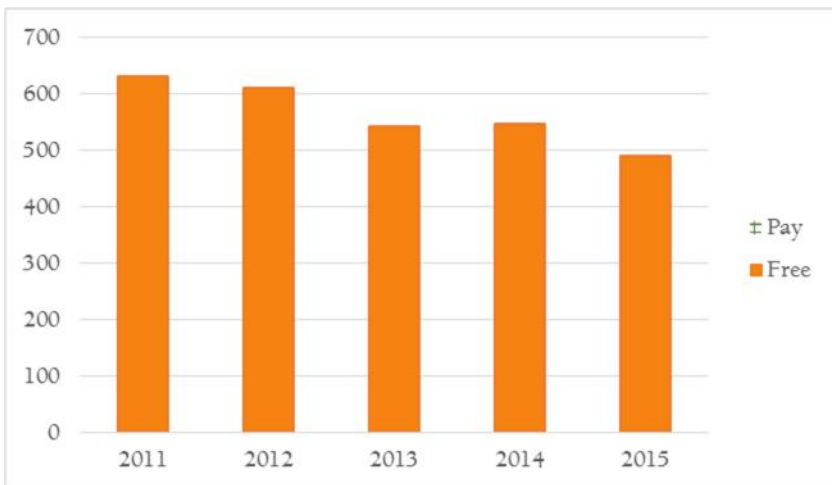
Since the interdisciplinary journal is primarily HSS (despite “Science” in the title), it’s fair to say HSS dominates the Macedonian OA field.

# Moldova

Moldova has a dozen OAWorld open access journals. None of them charge APCs, and all of them are still in *DOAJ*, making this a very brief chapter. More than half of them started in 2006-2007.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	11	12	12	12	12
Articles	490	548	542	612	632



**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Med.: 60-149	3	193
Small: 20-59	6	263
Smallest: 0-19	3	34

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	8	341
Society/govt	4	149

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 10-49%	2	16.7%	
Even, $\pm 9.99\%$	4	33.3%	50.0%
Shrank 10-49%	5	41.7%	91.7%
Shrank 50%+	1	8.3%	100.0%

Much more shrinkage than growth.



**Subjects**

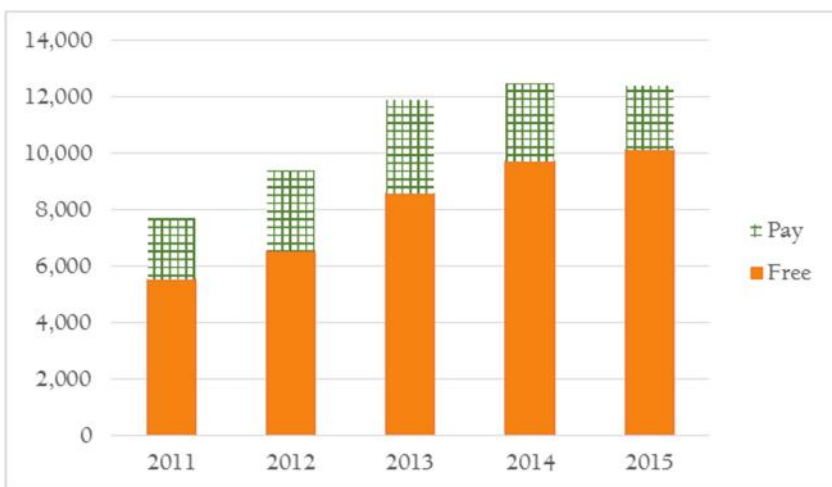
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Chemistry	2	92
Education	1	73
Arts & Architecture	1	60
Sociology	1	57
Economics	1	52
History	1	51
Technology	1	46
Computer Science	1	25
Mathematics	1	18
Language & Literature	2	16

# Poland

Poland has 343 OAWorld open access journals. For 2015, average cost per article in fee journals was \$475; overall average was \$87.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	322	334	303	236	192
%Free	90%	90%	89%	87%	85%
Articles	12,389	12,487	11,921	9,401	7,719
%Free	82%	78%	72%	69%	71%



Predominantly free, with a tiny drop (pay articles) in 2015.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	100%	630	100%
Large: 150-599	8	75%	2,047	70%
Med.: 60-149	41	68%	3,507	68%
Small: 20-59	140	91%	4,691	90%
Smallest: 0-19	153	97%	1,514	98%

The usual pattern except that the one very large journal is free.

**APC Levels and Revenues**

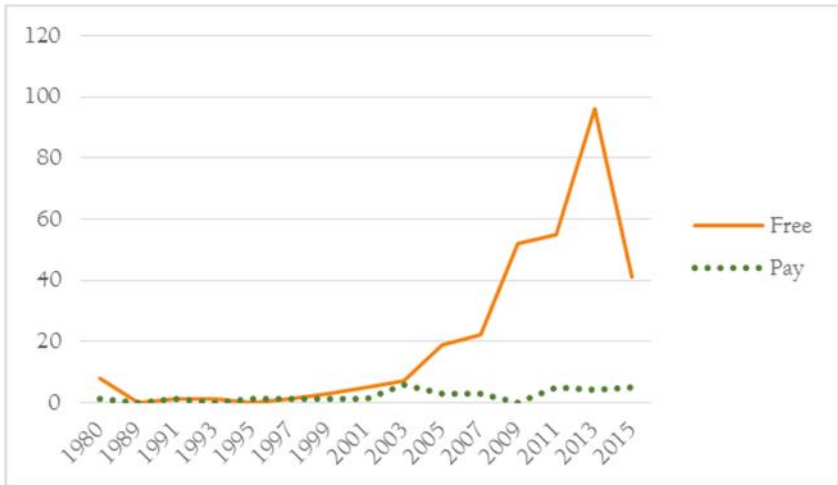
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	102	\$166,872	\$1,636
\$600-\$1.399	7	571	\$563,277	\$986
\$200-\$599	9	549	\$221,694	\$404
\$2-\$199	14	1,053	\$129,084	\$123
Free	311	10,114		
Total	343	12,389	\$1,080,927	\$87

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	188	97%	4,871	94%
Univ/college	85	86%	3,657	85%
Miscellaneous	32	84%	1,583	80%
Society/govt	16	56%	1,250	35%
Open Access	22	86%	1,028	69%

Primarily one traditional publisher with a very large OA division, mostly publishing society-sponsored journals without APCs. (Depending on dates checked, the number with APCs might be two or three higher than shown here, with no real effect on the overall picture.)

### Starting Date



In some cases—here and elsewhere—the date started may be the date the current publisher took over or the date the journal became OA.

### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	47	13.7%	
Grew 10-49%	57	16.6%	30.3%
Even, ±9.99%	94	27.4%	57.7%
Shrank 10-49%	83	24.2%	81.9%
Shrank 50%+	53	15.5%	97.4%

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	29	9%	282
Journals/Pay	7	22%	25
Articles/Free	1,003	10%	9,111
Articles/Pay	693	30%	1,582

Very low rate of delisting for free journals.

**Subjects**

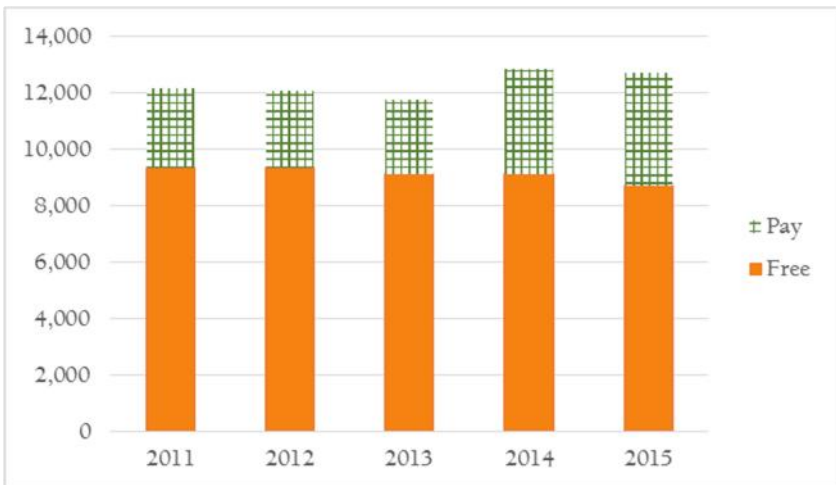
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	53	83%	2,561	76%
Physics	11	91%	1,156	96%
Technology	11	82%	1,113	82%
Agriculture	26	77%	799	61%
Sociology	13	100%	757	100%
Engineering	22	95%	711	95%
Economics	23	91%	585	88%
Mathematics	20	95%	554	86%
Earth Sciences	21	100%	544	100%
Ecology	17	94%	529	80%
Other Sciences	2	50%	477	8%
Anthropology	15	87%	420	80%
Biology	14	86%	337	52%
Language & Literature	20	100%	279	100%
Education	8	88%	238	98%
Chemistry	7	86%	227	66%
Zoology	9	89%	216	93%
Philosophy	8	100%	151	100%
Computer Science	10	90%	130	92%
Psychology	4	100%	113	100%
Arts & Architecture	5	100%	112	100%
Political Science	7	100%	112	100%
Religion	5	100%	104	100%
Library Science	4	100%	78	100%
History	3	100%	40	100%
Media & Communications	2	100%	25	100%
Law	3	100%	21	100%

# Romania

Romania has 322 OAWorld open access journals. Average 2015 cost per article in APC-charging journals: \$93. Overall average: \$30.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	302	310	306	284	264
%Free	84%	84%	85%	86%	86%
Articles	12,734	12,841	11,768	12,077	12,169
%Free	69%	71%	77%	77%	77%



Free journals down in 2015, pay journals up.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	1,004	0%
Large: 150-599	8	75%	1,606	76%
Med.: 60-149	51	59%	4,547	57%
Small: 20-59	128	87%	4,177	86%
Smallest: 0-19	134	93%	1,400	94%

Slightly atypical, with six of eight large journals free.

**APC Levels and Revenues**

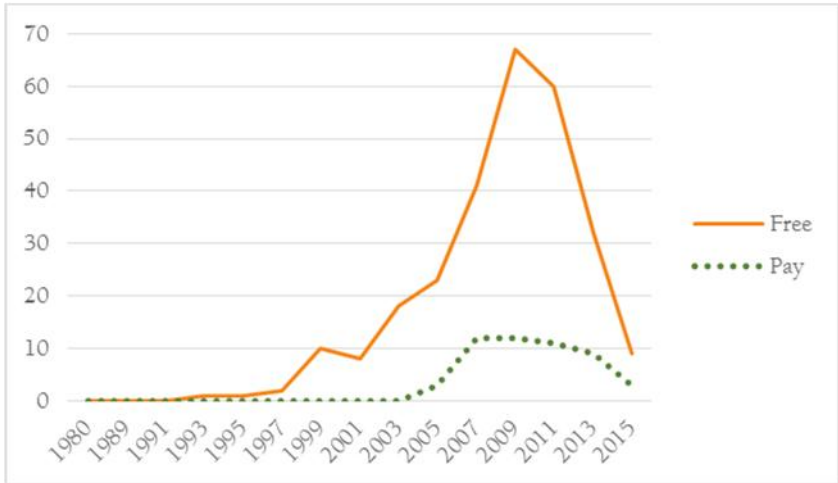
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	75	\$48,825	\$651
\$200-\$599	5	304	\$94,765	\$312
\$2-\$199	44	3,630	\$233,787	\$64
Free	272	8,725		
Total	322	12,734	\$377,377	\$30

Almost all fees are fairly nominal, thus the low average costs.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	199	85%	7,922	73%
Miscellaneous	87	86%	3,330	61%
Society/govt	21	81%	853	71%
Open Access	10	50%	516	39%
Traditional	5	100%	113	100%

**Starting Date**



Mostly fairly recent, but with earlier-than-usual new-journal peaks.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	50	15.5%	
Grew 10-49%	68	21.1%	36.6%
Even, ±9.99%	73	22.7%	59.3%
Shrank 10-49%	80	24.8%	84.2%
Shrank 50%+	39	12.1%	96.3%

Almost precisely equal shrinkage and growth, but more *fast* growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	57	21%	215
Journals/Pay	5	10%	45
Articles/Free	2,134	24%	6,591
Articles/Pay	460	11%	3,549

Slightly low free delisting rate, very low pay delisting rate,



**Subjects**

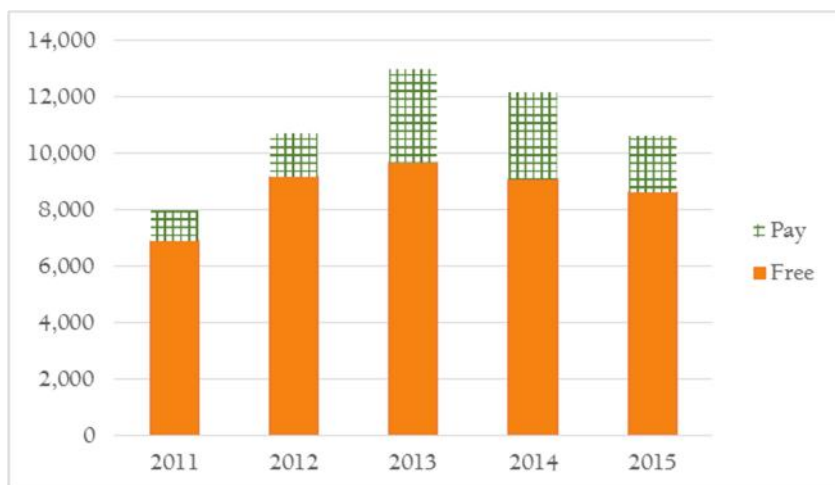
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Economics	61	72%	2,582	64%
Sociology	13	85%	1,513	25%
Medicine	21	71%	1,071	66%
Agriculture	17	82%	1,035	71%
Engineering	13	92%	762	97%
Zoology	12	50%	634	56%
Political Science	24	100%	602	100%
Language & Literature	11	100%	473	100%
Computer Science	18	78%	455	53%
Anthropology	10	70%	403	43%
Law	11	100%	385	100%
Miscellany	4	50%	317	44%
Earth Sciences	19	100%	307	100%
Education	12	92%	290	91%
Arts & Architecture	9	89%	274	64%
Technology	8	88%	270	71%
Biology	7	86%	247	81%
Mathematics	13	100%	239	100%
Philosophy	8	88%	205	81%
Ecology	4	75%	153	54%
History	7	100%	135	100%
Chemistry	3	100%	107	100%
Physics	3	100%	97	100%
Media & Communications	5	100%	59	100%
Other Sciences	4	100%	54	100%
Religion	3	100%	51	100%
Psychology	1	100%	14	100%
Library Science	1	100%	0	

# Russian Federation

Russia has 147 OAWorld open access journals. The 2015 average cost per article in APC-charging journals was \$187; overall average, \$35.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	145	143	142	127	103
%Free	94%	94%	94%	93%	93%
Articles	10,625	12,181	12,979	10,738	8,003
%Free	81%	75%	75%	85%	86%



Drop in publishing since 2013 is mostly, but not all, pay journals.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	50%	2,047	40%
Large: 150-599	6	83%	1,774	75%
Med.: 60-149	44	93%	3,796	94%
Small: 20-59	73	96%	2,748	97%
Smallest: 0-19	22	95%	260	95%

**APC Levels and Revenues**

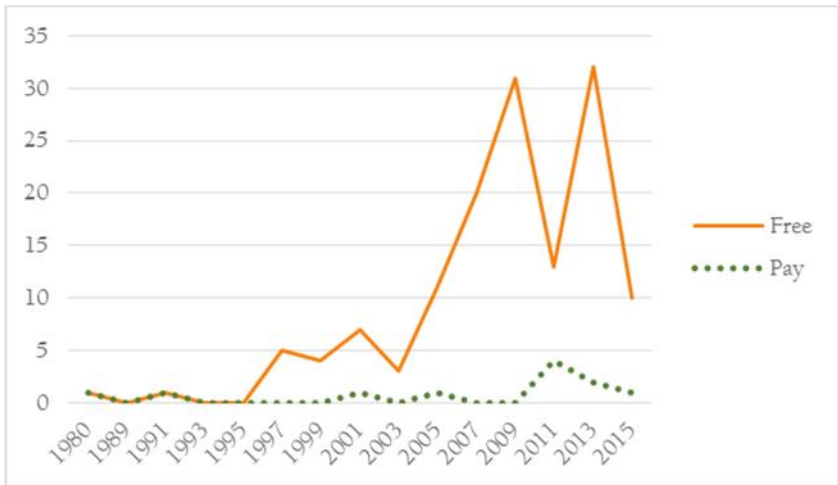
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	67	\$67,302	\$1,005
\$200-\$599	3	1,268	\$276,074	\$218
\$2-\$199	5	653	\$27,745	\$42
Free	138	8,637		
Total	147	10,625	\$371,121	\$35

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	81	96%	5,678	98%
Miscellaneous	50	90%	4,329	56%
Open Access	9	100%	343	100%
Traditional	4	100%	141	100%
Society/govt	3	67%	134	91%

Unusual in that all journals from multijournal OA and traditional publishers are free.

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	13	8.8%	
Grew 10-49%	27	18.4%	27.2%
Even, ±9.99%	46	31.3%	58.5%
Shrank 10-49%	43	29.3%	87.8%
Shrank 50%+	14	9.5%	97.3%

Sizable steady-state group, but considerably more shrinkage than growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	33	24%	105
Journals/Pay	1	11%	8
Articles/Free	2,189	25%	6,448
Articles/Pay	28	1%	1,960

Moderate free delisting, but only one small delisted pay journal.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellany	11	64%	2,104	33%
Other Sciences	3	67%	1,284	65%
Medicine	24	100%	1,116	100%
Education	5	80%	874	97%
Language & Literature	9	100%	610	100%
Psychology	12	100%	533	100%
Economics	8	100%	523	100%
Engineering	6	100%	397	100%
Law	7	100%	388	100%
Arts & Architecture	4	100%	355	100%
History	6	100%	351	100%
Chemistry	3	100%	341	100%
Computer Science	4	100%	284	100%
Earth Sciences	6	100%	214	100%
Sociology	4	100%	188	100%
Agriculture	4	75%	165	62%
Mathematics	3	100%	142	100%
Philosophy	3	100%	123	100%
Physics	5	80%	116	90%
Religion	2	100%	109	100%
Ecology	3	67%	101	66%
Political Science	3	100%	93	100%
Technology	3	100%	73	100%
Anthropology	4	100%	51	100%
Zoology	2	100%	40	100%
Media & Communications	2	100%	33	100%
Biology	1	100%	17	100%

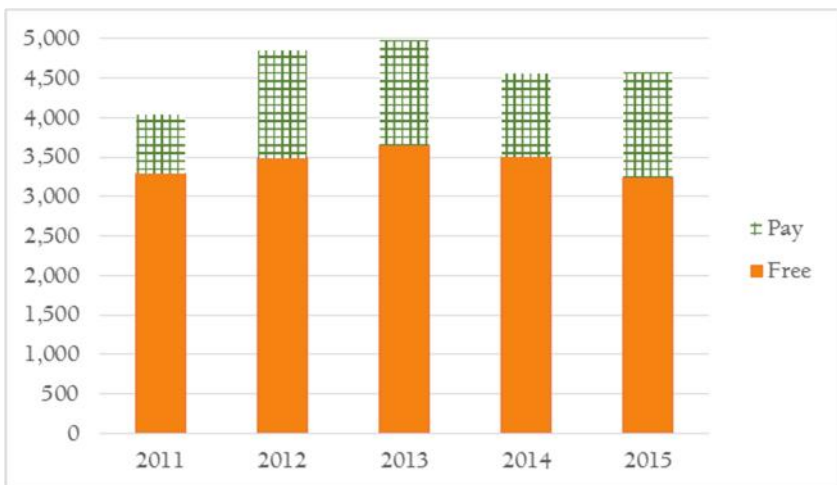
Very strong on multidisciplinary journals of all varieties.

# Serbia

Serbia has 102 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$395; overall, it was \$115.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	95	98	99	94	91
%Free	94%	94%	95%	96%	96%
Articles	4,576	4,565	4,978	4,850	4,037
%Free	71%	77%	73%	72%	82%



Decline in free publishing since 12013, but pay back to 2013 level.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	841	0%
Large: 150-599	4	75%	893	65%
Med.: 60-149	8	88%	731	91%
Small: 20-59	48	94%	1,680	93%
Smallest: 0-19	41	100%	431	100%

**APC Levels and Revenues**

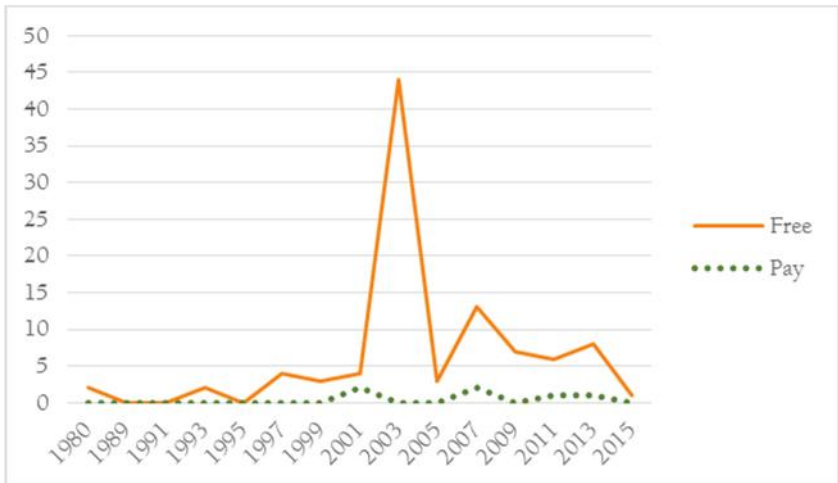
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	841	\$458,345	\$545
\$2-\$199	5	492	\$67,972	\$138
Free	96	3,243		
Total	102	4,576	\$526,317	\$115

The one big journal is also the most expensive journal.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	60	98%	2,035	84%
Miscellaneous	20	85%	1,451	36%
Society/govt	20	90%	1,056	92%
Traditional	2	100%	34	100%

## Starting Date



2002 was a banner year for free OA in what is now Serbia (nearly all of those in 2002-2003 show 2002 start dates).

## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	3.9%	
Grew 10-49%	26	25.5%	29.4%
Even, $\pm 9.99\%$	28	27.5%	56.9%
Shrank 10-49%	29	28.4%	85.3%
Shrank 50%+	11	10.8%	96.1%

Much more shrinkage than growth.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	20	21%	76
Journals/Pay	1	17%	5
Articles/Free	775	24%	2,468
Articles/Pay	841	63%	492

The only delisted pay journal is also the largest journal.



**Subjects**

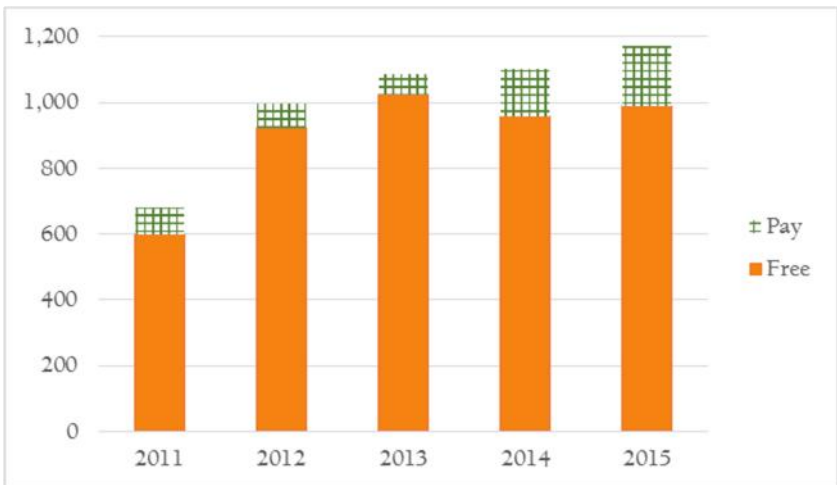
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Chemistry	6	67%	1,175	23%
Medicine	10	90%	574	95%
Engineering	10	90%	559	43%
Mathematics	5	100%	367	100%
Economics	11	91%	293	78%
Biology	2	100%	267	100%
Sociology	3	100%	168	100%
Agriculture	5	100%	164	100%
Anthropology	6	100%	156	100%
Education	5	80%	121	78%
Philosophy	3	100%	118	100%
Technology	3	100%	96	100%
Computer Science	3	100%	82	100%
Language & Literature	7	100%	78	100%
Zoology	3	100%	75	100%
History	4	100%	65	100%
Earth Sciences	5	100%	54	100%
Arts & Architecture	4	100%	47	100%
Ecology	1	100%	28	100%
Psychology	1	100%	27	100%
Other Sciences	2	100%	25	100%
Political Science	2	100%	23	100%
Law	1	100%	14	100%

# Slovakia

Slovakia has 43 OAWorld open access journals. The average 2015 cost per article in fee-charging journals was \$137; overall average was \$21.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	42	41	39	35	34
%Free	90%	90%	92%	94%	94%
Articles	1,172	1,102	1,088	996	680
%Free	84%	87%	94%	93%	88%



Slight dip in free journal activity, but overall shows increase.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	100%	165	100%
Med.: 60-149	3	67%	227	59%
Small: 20-59	17	88%	530	86%
Smallest: 0-19	22	95%	250	95%

**APC Levels and Revenues**

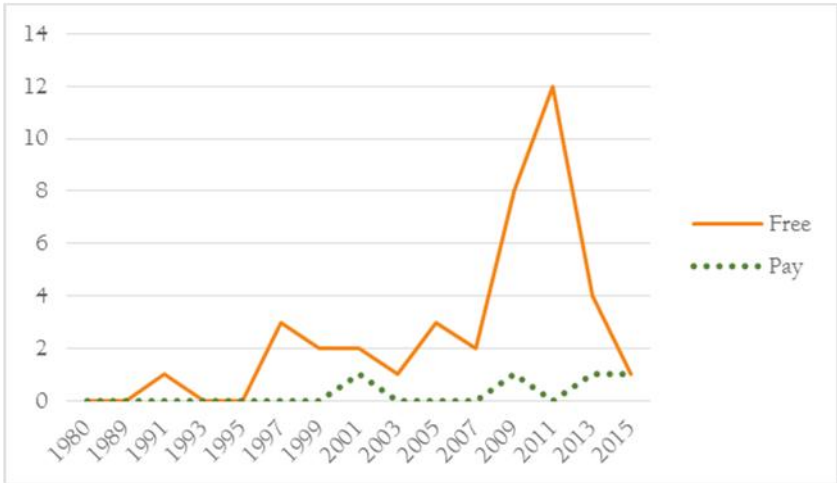
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	55	\$12,155	\$221
\$2-\$199	3	127	\$12,836	\$101
Free	39	990		
Total	43	1,172	\$24,991	\$21

What few fees there are, are typically low.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	14	93%	489	96%
Miscellaneous	12	83%	311	78%
Society/govt	3	67%	153	39%
Traditional	10	100%	147	100%
Open Access	4	100%	72	100%

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	6	14.0%	
Grew 10-49%	6	14.0%	27.9%
Even, $\pm 9.99\%$	10	23.3%	51.2%
Shrank 10-49%	16	37.2%	88.4%
Shrank 50%+	3	7.0%	95.3%

Much more moderate shrinkage—but more fast growth than shrinkage.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	10	26%	29
Journals/Pay	0	0%	4
Articles/Free	210	21%	780
Articles/Pay	0	0%	182

Fairly typical free delisting, no pay delisting.

**Subjects**

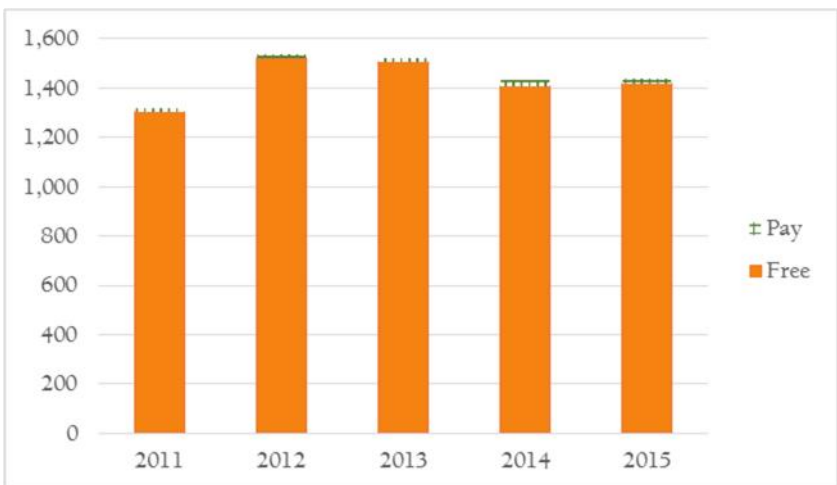
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	5	80%	218	57%
Technology	2	100%	184	100%
Language & Literature	4	75%	121	55%
Mathematics	3	100%	88	100%
Medicine	3	100%	63	100%
Chemistry	1	100%	61	100%
Earth Sciences	2	100%	56	100%
Philosophy	1	100%	45	100%
Education	3	100%	44	100%
Engineering	3	67%	39	69%
Computer Science	2	100%	35	100%
Economics	3	67%	33	36%
Anthropology	1	100%	30	100%
History	1	100%	30	100%
Arts & Architecture	1	100%	26	100%
Political Science	1	100%	23	100%
Biology	1	100%	21	100%
Zoology	2	100%	17	100%
Media & Communications	1	100%	14	100%
Religion	2	100%	13	100%
Psychology	1	100%	11	100%

# Slovenia

Slovenia has 54 OAWorld open access journals. In 2015, articles in the sole fee-charging journals cost \$220 each; overall average was \$3.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	53	54	54	51	46
%Free	98%	98%	98%	98%	98%
Articles	1,437	1,434	1,524	1,539	1,319
%Free	99%	98%	99%	99%	99%



Down slightly from 2012 peak.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	100%	155	100%
Med.: 60-149	3	100%	306	100%
Small: 20-59	25	100%	711	100%
Smallest: 0-19	25	96%	265	93%

The only pay journal is very small.

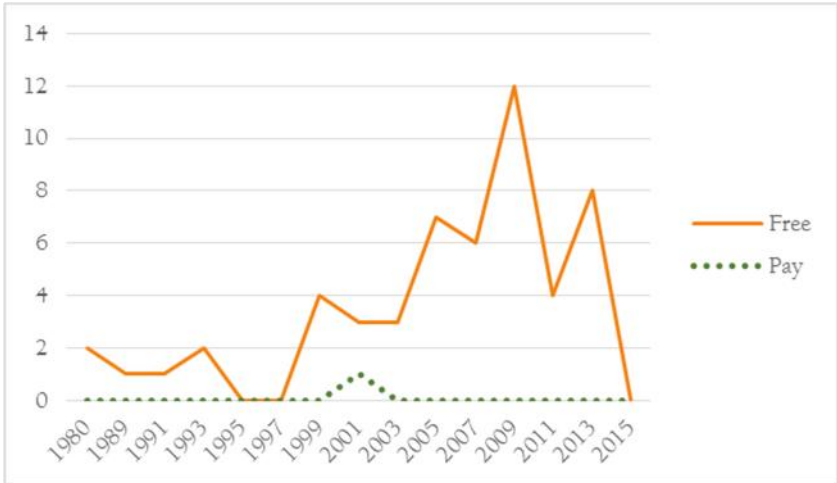
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	18	\$3,960	\$220
Free	53	1,419		
Total	54	1,437	\$3,960	\$3

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	29	100%	710	100%
Society/govt	7	86%	426	96%
Miscellaneous	15	100%	218	100%
Traditional	3	100%	83	100%

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	6	11.1%	
Grew 10-49%	14	25.9%	37.0%
Even, $\pm 9.99\%$	18	33.3%	70.4%
Shrank 10-49%	10	18.5%	88.9%
Shrank 50%+	6	11.1%	100.0%

More growth than shrinkage.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	11	21%	42
Journals/Pay	0	0%	1
Articles/Free	216	15%	1,203
Articles/Pay	0	0%	18

Slightly low free-journal delisting, mostly smaller journals.



**Subjects**

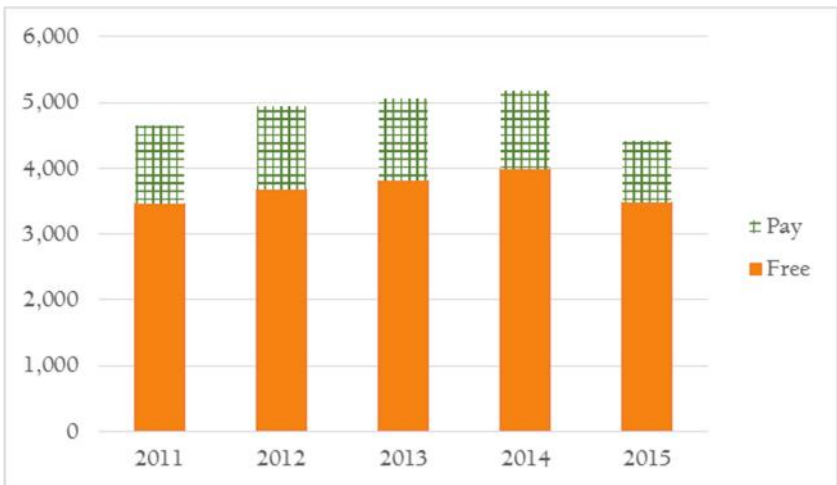
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Language & Literature	9	100%	191	100%
Medicine	3	67%	157	89%
Technology	1	100%	155	100%
Chemistry	1	100%	149	100%
Anthropology	5	100%	143	100%
Economics	7	100%	139	100%
Earth Sciences	4	100%	85	100%
Education	4	100%	83	100%
Agriculture	3	100%	63	100%
Computer Science	1	100%	45	100%
Arts & Architecture	4	100%	44	100%
Miscellany	1	100%	32	100%
Zoology	2	100%	31	100%
Sociology	1	100%	29	100%
History	1	100%	28	100%
Library Science	2	100%	28	100%
Political Science	2	100%	16	100%
Biology	1	100%	10	100%
Philosophy	1	100%	9	100%
Law	1	100%	0	

# Ukraine

Ukraine has 69 OAWorld open access journals. Average cost per article in 2015 in APC-charging journals: \$43. Average cost overall: \$9.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	64	68	63	58	49
%Free	89%	90%	89%	88%	88%
Articles	4,416	5,185	5,064	4,947	4,644
%Free	79%	77%	75%	74%	74%



Paid activity peaked in 2012, free journals in 2014.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	618	0%
Large: 150-599	3	100%	578	100%
Med.: 60-149	20	90%	1,726	91%
Small: 20-59	33	88%	1,408	88%
Smallest: 0-19	12	100%	86	100%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$2-\$199	7	935	\$40,179	\$43
Free	62	3,481		
Total	69	4,416	\$40,179	\$9

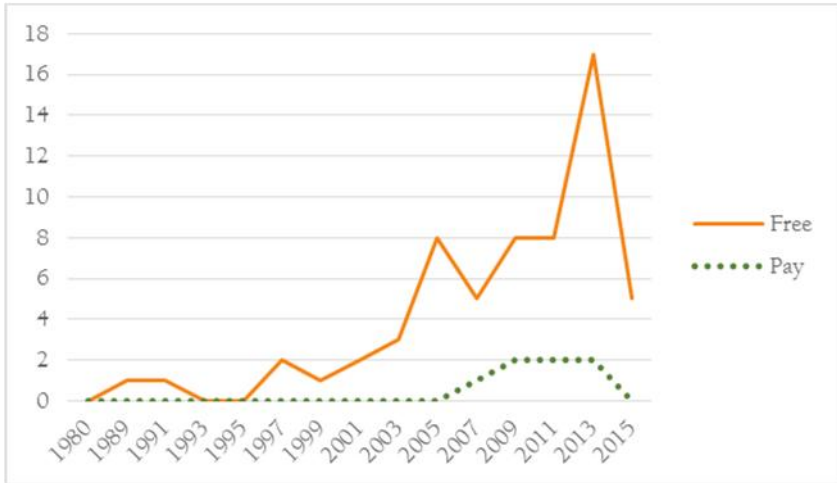
All APCs are fairly nominal.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	54	91%	3,637	76%
Miscellaneous	9	78%	495	86%
Society/govt	5	100%	226	100%
Traditional	1	100%	58	100%

Dominated by university publications, which is fairly typical.

### Starting Date



More recent peak than usual, in 2012-2013.

### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	7	10.1%	
Grew 10-49%	15	21.7%	31.9%
Even, $\pm 9.99\%$	12	17.4%	49.3%
Shrank 10-49%	24	34.8%	84.1%
Shrank 50%+	10	14.5%	98.6%

Considerably more shrinkage than growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	12	19%	50
Journals/Pay	0	0%	7
Articles/Free	607	17%	2,874
Articles/Pay	0	0%	935

Relatively low delisting rate for free journals, none among the paid ones.

**Subjects**

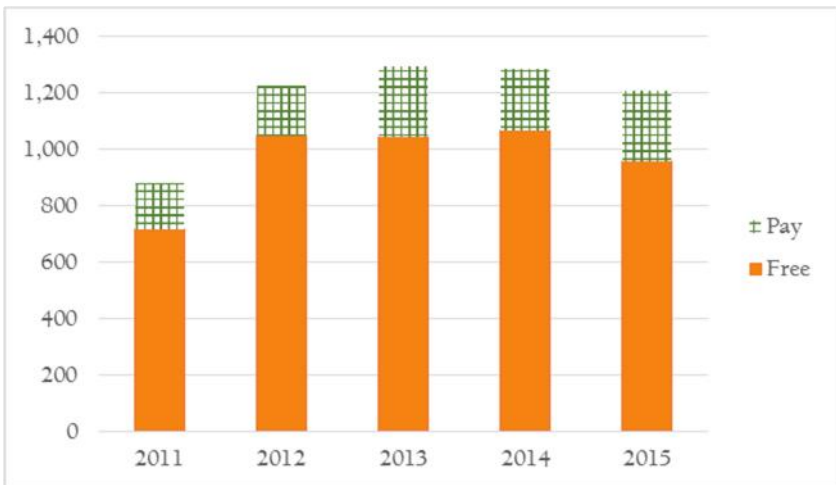
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Economics	10	60%	1,022	21%
Physics	7	100%	664	100%
Engineering	5	80%	300	86%
Miscellany	3	100%	266	100%
Medicine	5	100%	258	100%
Computer Science	6	100%	220	100%
Education	2	100%	220	100%
Anthropology	2	100%	219	100%
Mathematics	4	100%	187	100%
Philosophy	3	100%	161	100%
Technology	4	75%	151	65%
Agriculture	3	100%	146	100%
Biology	3	100%	134	100%
Zoology	2	50%	96	60%
Chemistry	2	100%	83	100%
Ecology	1	100%	83	100%
Other Sciences	1	100%	65	100%
Political Science	2	100%	53	100%
History	1	100%	42	100%
Sociology	2	100%	31	100%
Language & Literature	1	100%	15	100%

# Other Eastern European Countries

This group of countries has 34 OAWorld open access journals. Average cost per article in 2015 in APC-charging journals: \$138. Overall: \$29.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	34	33	30	30	26
%Free	85%	88%	87%	87%	85%
Articles	1,208	1,284	1,294	1,226	882
%Free	79%	83%	81%	86%	81%



Free journals down in 2015, pay up.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	5	60%	519	66%
Small: 20-59	18	94%	566	91%
Smallest: 0-19	11	82%	123	80%

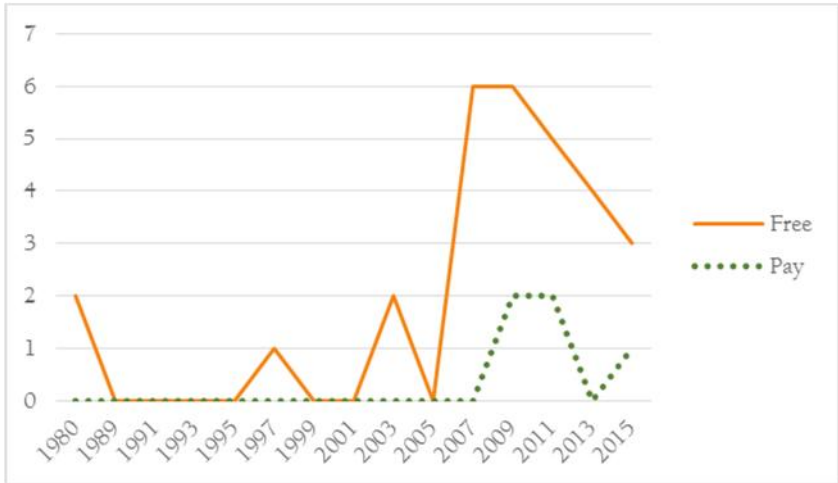
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	52	\$10,556	\$203
\$2-\$199	4	200	\$24,191	\$121
Free	29	956		
Total	34	1,208	\$34,747	\$29

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	21	90%	813	90%
Miscellaneous	9	78%	256	54%
Open Access	2	50%	87	40%
Traditional	1	100%	32	100%
Society/govt	1	100%	20	100%

**Starting Date**



Almost all 2006 and beyond, no pay before 2008.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	11.8%	
Grew 10-49%	9	26.5%	38.2%
Even, ±9.99%	7	20.6%	58.8%
Shrank 10-49%	9	26.5%	85.3%
Shrank 50%+	4	11.8%	97.1%

Entirely symmetrical, which is unusual.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	5	17%	24
Journals/Pay	0	0%	5
Articles/Free	230	24%	726
Articles/Pay	0	0%	252

Slightly low free delisting, another country with no pay losses.



**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	2	50%	197	67%
Economics	4	50%	186	37%
Miscellany	1	100%	137	100%
Sociology	3	100%	82	100%
Education	3	100%	78	100%
Other Sciences	2	50%	75	31%
Psychology	1	100%	75	100%
Computer Science	3	100%	56	100%
Language & Literature	3	100%	54	100%
Physics	2	100%	49	100%
Mathematics	3	67%	48	65%
Ecology	1	100%	43	100%
Engineering	1	100%	35	100%
Chemistry	1	100%	31	100%
Technology	1	100%	26	100%
Biology	1	100%	22	100%
Anthropology	1	100%	10	100%
Political Science	1	100%	4	100%

**Country Summaries****Albania**

Four journals, the largest (and one of two with APCs) starting in 2015, the second largest (also with APCs) falling sharply in 2015. Total 240 articles in 2015, down from 244 in 2014.

### **Armenia**

Three free university-published journals, two small, one even smaller. Sixty articles in both 2014 and 2015.

### **Azerbaijan**

Three journals, one of which is large and charges APCs. 174 articles in 2015, down from 225 in 2014.

### **Belarus**

Two small free journals. 49 articles in 2015, down from 73 in 2014.

### **Cyprus**

Four free journals, all in humanities and social sciences, one small and three smallest. Total of 55 articles in 2015, down from 66 in 2014.

### **Georgia**

Two free university-published journals, one medium-sized, one small. In all, 85 articles in 2015, down from 152 in 2014.

### **Kazakhstan**

One free university-published journal, shrinking since 2012. 31 articles in 2015, down from 55 in 2014.

### **Kosova**

Two APC-charging journals, both very small. 25 articles in 2015, down from 30 in 2014.

### **Latvia**

Six journals, all small, one with APCs. Total of 187 articles in 2015, up from 139 in 2014.

**Montenegro**

Seven journals, all free, including two medium-sized, two small and three smallest. Total of 302 articles in 2015, up from 240 in 2014.

# Latin America

Latin America has 1,917 OAWorld open access journals. In 2015, average cost per article in APC-charging journals: \$372. Overall: \$39

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	1,783	1,902	1,918	1,864	1,787
%Free	95%	95%	95%	95%	95%
Articles	65,298	67,847	66,044	65,597	62,383
%Free	90%	90%	90%	89%	89%

Predominantly free, both free and pay off a bit from 2014 to 2015.

## Article Volume

	Journals	%Free	Articles	%Free
Large: 150-599	36	75%	8,437	73%
Med.: 60-149	228	85%	19,321	84%
Small: 20-59	925	96%	30,255	96%
Smallest: 0-19	782	98%	7,285	98%

No very large journal, predominantly small and smallest.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	3	351	\$545,530	\$1,554
\$600-\$1.399	12	987	\$881,040	\$893
\$200-\$599	35	2,534	\$845,783	\$334
\$2-\$199	45	2,886	\$243,011	\$84
Free	1,876	58,540		
Total	1,971	65,298	\$2,515,364	\$39

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	1,499	96%	45,401	92%
Society/govt	270	89%	13,355	84%
Miscellaneous	193	95%	6,250	86%
Open Access	8	100%	219	100%
Traditional	1	100%	73	100%

Predominantly university-published journals.

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	246	12.5%	
Grew 10-49%	372	18.9%	31.4%
Even, $\pm$ 9.99%	543	27.5%	58.9%
Shrank 10-49%	480	24.4%	83.3%
Shrank 50%+	261	13.2%	96.5%

A large even contingent, but more shrinkage than growth.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	619	33%	1,257
Journals/Pay	34	36%	61
Articles/Free	16,647	28%	41,893
Articles/Pay	1,653	24%	5,105

Journal delistings on the high side, articles roughly typical.

**Subjects**

Medicine far out in front of any other field, with agriculture and education following. Biology and zoology tie for the largest presence of pay articles, still only 37% in each case.

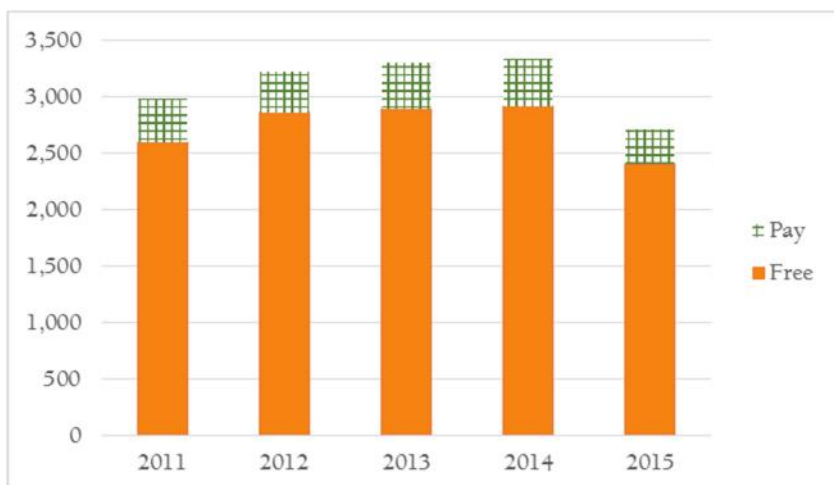
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	309	94%	16,533	90%
Agriculture	127	75%	5,763	59%
Education	140	99%	4,067	99%
Sociology	128	100%	3,260	100%
Economics	153	98%	3,231	97%
Zoology	58	76%	2,940	63%
Language & Literature	106	100%	2,588	100%
Biology	41	83%	2,447	63%
Law	91	100%	2,075	100%
Earth Sciences	79	97%	1,887	98%
Engineering	48	100%	1,859	100%
History	76	100%	1,753	100%
Psychology	59	97%	1,750	93%
Anthropology	67	97%	1,582	96%
Ecology	58	90%	1,495	91%
Other Sciences	35	100%	1,428	100%
Miscellany	46	100%	1,424	100%
Technology	31	97%	1,422	95%
Media & Communications	49	98%	1,267	99%
Political Science	51	100%	1,060	100%
Philosophy	60	100%	1,009	100%
Religion	24	96%	936	97%
Arts & Architecture	42	100%	824	100%
Chemistry	12	92%	808	95%
Computer Science	24	96%	578	96%
Library Science	27	100%	503	100%
Mathematics	21	100%	447	100%
Physics	9	78%	362	91%

# Argentina

Argentina has 159 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$454; overall average, \$52.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	128	153	156	151	140
%Free	92%	93%	93%	93%	92%
Articles	2,712	3,344	3,301	3,230	2,986
%Free	89%	87%	88%	89%	87%



Both free and pay articles peaked in 2014.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	100%	150	100%
Med.: 60-149	4	75%	342	72%
Small: 20-59	42	88%	1,316	88%
Smallest: 0-19	112	96%	904	94%

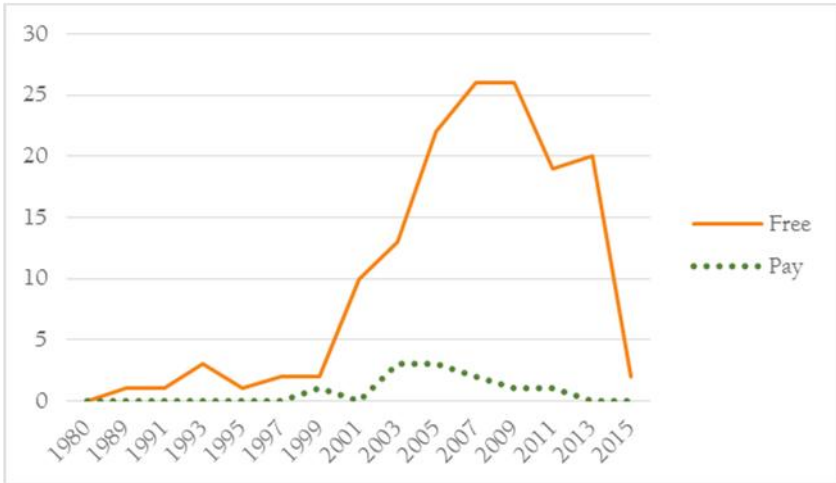
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	3	160	\$119,000	\$744
\$200-\$599	3	54	\$15,100	\$280
\$2-\$199	5	97	\$7,247	\$75
Free	148	2,401		
Total	159	2,712	\$141,347	\$52

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	102	99%	1,562	100%
Society/govt	34	79%	723	76%
Miscellaneous	22	86%	419	68%
Open Access	1	100%	8	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	21	13.2%	
Grew 10-49%	24	15.1%	28.3%
Even, $\pm$ 9.99%	24	15.1%	43.4%
Shrank 10-49%	40	25.2%	68.6%
Shrank 50%+	44	27.7%	96.2%

Much more shrinkage than growth, with few steady-state journals.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	44	30%	104
Journals/Pay	2	18%	9
Articles/Free	782	33%	1,619
Articles/Pay	56	18%	255

Typical free-journal delisting rates for Latin America

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	19	89%	599	78%
Sociology	15	100%	247	100%
Media & Communications	5	100%	225	100%
Anthropology	16	100%	196	100%
Language & Literature	11	100%	185	100%
History	12	100%	172	100%
Biology	9	89%	167	71%
Agriculture	10	60%	125	54%
Earth Sciences	10	90%	98	78%
Zoology	4	75%	95	85%
Law	4	100%	84	100%
Education	5	100%	72	100%
Economics	8	100%	65	100%
Other Sciences	2	100%	59	100%
Miscellany	2	100%	50	100%
Computer Science	2	50%	45	51%
Political Science	2	100%	42	100%
Ecology	5	100%	40	100%
Arts & Architecture	4	100%	33	100%
Religion	1	100%	26	100%
Philosophy	7	100%	22	100%
Technology	1	100%	19	100%
Physics	1	0%	17	0%
Library Science	2	100%	16	100%
Mathematics	1	100%	13	100%
Psychology	1	100%	0	

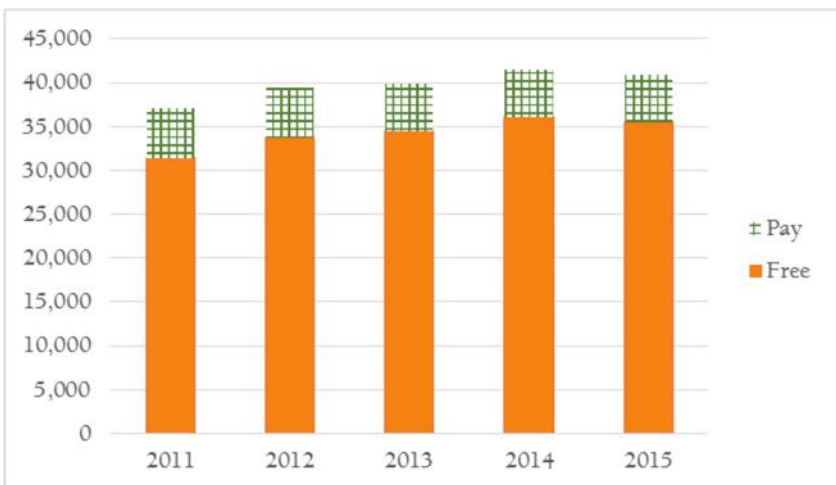
Interesting that the next five busiest subjects after medicine are all in the humanities and social sciences (and all entirely free).

# Brazil

Brazil has 992 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$364; overall average was \$48.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	914	958	960	926	884
%Free	94%	94%	94%	94%	94%
Articles	40,884	41,518	39,824	39,425	37,026
%Free	87%	87%	86%	86%	85%



Free and pay both down 1-2% from 2014 peak.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	30	73%	7,186	71%
Med.: 60-149	163	82%	13,861	80%
Small: 20-59	515	97%	17,268	96%
Smallest: 0-19	284	98%	2,569	98%

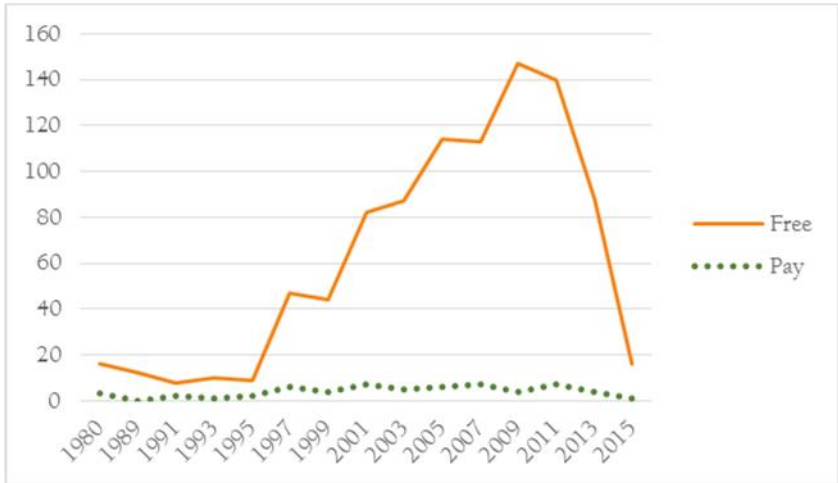
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	3	351	\$545,530	\$1,554
\$600-\$1.399	5	556	\$538,160	\$968
\$200-\$599	22	2,174	\$703,321	\$324
\$2-\$199	29	2,343	\$188,109	\$80
Free	933	35,460		
Total	992	40,884	\$1,975,120	\$48

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	732	95%	26,926	88%
Society/govt	143	89%	9,193	83%
Miscellaneous	111	95%	4,492	85%
Open Access	5	100%	200	100%
Traditional	1	100%	73	100%

**Starting Date**



Some early OA journals, picking up after 1995 to 2009 peak.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	122	12.3%	
Grew 10-49%	193	19.5%	31.8%
Even, ±9.99%	306	30.8%	62.6%
Shrank 10-49%	232	23.4%	86.0%
Shrank 50%+	105	10.6%	96.6%

Strong even group, *slightly* more shrinkage than growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	251	27%	682
Journals/Pay	16	27%	43
Articles/Free	7,007	20%	28,453
Articles/Pay	937	17%	4,487

Delisted journals tend to have fewer articles.

**Subjects**

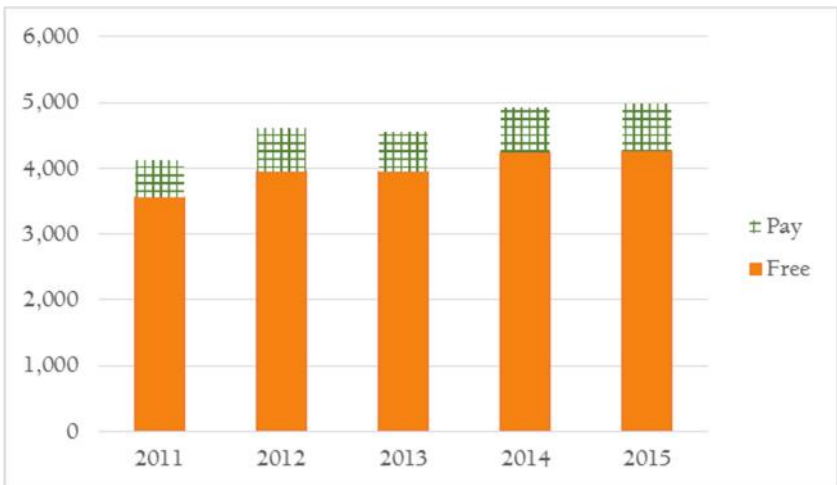
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	146	92%	10,560	90%
Agriculture	67	67%	3,930	45%
Education	81	100%	2,758	100%
Economics	86	99%	2,109	98%
Zoology	28	68%	1,962	50%
Biology	22	73%	1,892	54%
Language & Literature	66	100%	1,770	100%
Sociology	49	100%	1,390	100%
Earth Sciences	42	100%	1,255	100%
Law	43	100%	1,047	100%
Anthropology	30	93%	1,037	94%
History	39	100%	1,031	100%
Ecology	29	83%	1,003	89%
Psychology	26	96%	993	89%
Technology	16	100%	914	100%
Engineering	18	100%	877	100%
Miscellany	28	100%	830	100%
Religion	17	94%	775	97%
Media & Communications	28	100%	770	100%
Philosophy	33	100%	650	100%
Chemistry	6	100%	630	100%
Other Sciences	13	100%	576	100%
Arts & Architecture	19	100%	505	100%
Political Science	24	100%	505	100%
Library Science	15	100%	363	100%
Computer Science	10	100%	287	100%
Physics	3	100%	234	100%
Mathematics	8	100%	231	100%

# Chile

Chile has 148 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$439; overall average was \$64.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	136	145	145	140	133
%Free	93%	93%	93%	93%	92%
Articles	4,991	4,917	4,551	4,606	4,131
%Free	86%	86%	87%	86%	86%



Both free and pay journals continue to grow slowly.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	50%	485	51%
Med.: 60-149	19	79%	1,618	82%
Small: 20-59	67	93%	2,220	92%
Smallest: 0-19	60	100%	668	100%

**APC Levels and Revenues**

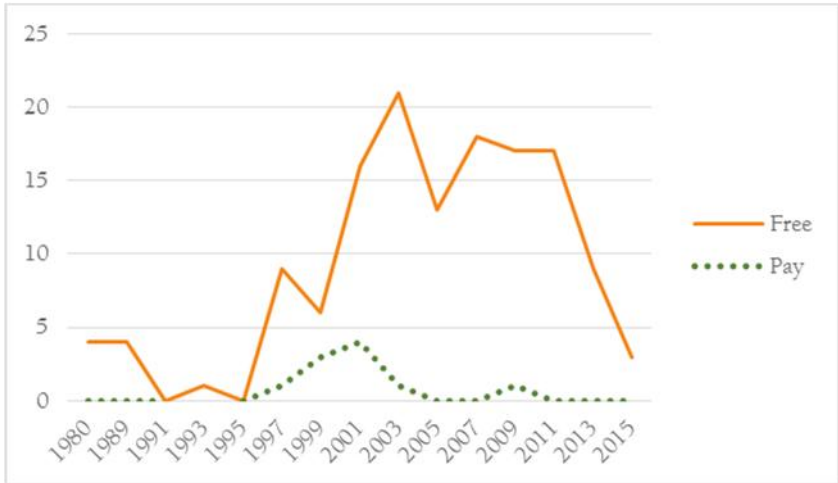
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	3	236	\$188,880	\$800
\$200-\$599	5	225	\$101,045	\$449
\$2-\$199	2	262	\$27,400	\$105
Free	138	4,268		
Total	148	4,991	\$317,325	\$64

Oddly even distribution of articles at various APC levels.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	113	94%	3,277	90%
Society/govt	19	89%	1,415	78%
Miscellaneous	15	93%	299	70%
Open Access	1	100%	0	

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	17	11.5%	
Grew 10-49%	36	24.3%	35.8%
Even, $\pm 9.99\%$	50	33.8%	69.6%
Shrank 10-49%	31	20.9%	90.5%
Shrank 50%+	11	7.4%	98.0%

More growth than shrinkage, and a large steady group.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	66	48%	72
Journals/Pay	7	70%	3
Articles/Free	2,406	56%	1,862
Articles/Pay	514	71%	209

Very high delisting rates, especially among pay journals.

**Subjects**

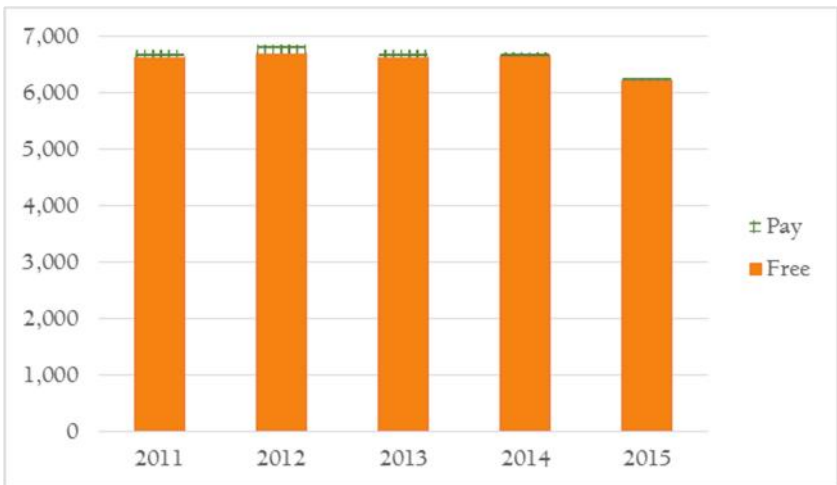
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	22	82%	1,240	66%
Agriculture	12	83%	496	84%
Language & Literature	13	100%	324	100%
Technology	4	75%	318	75%
Law	9	100%	285	100%
Sociology	9	100%	253	100%
Other Sciences	1	100%	247	100%
Education	4	75%	145	61%
Engineering	4	100%	130	100%
Philosophy	7	100%	127	100%
Political Science	7	100%	127	100%
Arts & Architecture	7	100%	118	100%
Anthropology	6	100%	117	100%
Psychology	5	100%	113	100%
Miscellany	2	100%	111	100%
Biology	1	100%	108	100%
Media & Communications	5	100%	101	100%
Chemistry	1	100%	92	100%
History	4	100%	92	100%
Earth Sciences	4	100%	88	100%
Zoology	2	0%	87	0%
Religion	3	100%	69	100%
Mathematics	3	100%	61	100%
Computer Science	3	100%	50	100%
Ecology	3	100%	48	100%
Economics	6	100%	41	100%
Library Science	1	100%	3	100%

# Colombia

Colombia has 263 OAWorld open access journals. The 2015 average cost per article in APC-charging journals was \$234; overall average, \$2.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	240	257	259	257	249
%Free	99%	98%	98%	98%	98%
Articles	6,267	6,735	6,762	6,855	6,769
%Free	99%	99%	98%	98%	98%



Both pay and free articles peaked in 2012, with significant drop in 2015.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	100%	433	100%
Med.: 60-149	12	100%	947	100%
Small: 20-59	118	99%	3,513	99%
Smallest: 0-19	131	98%	1,374	99%

Unusual that all fee journals are small or very small.

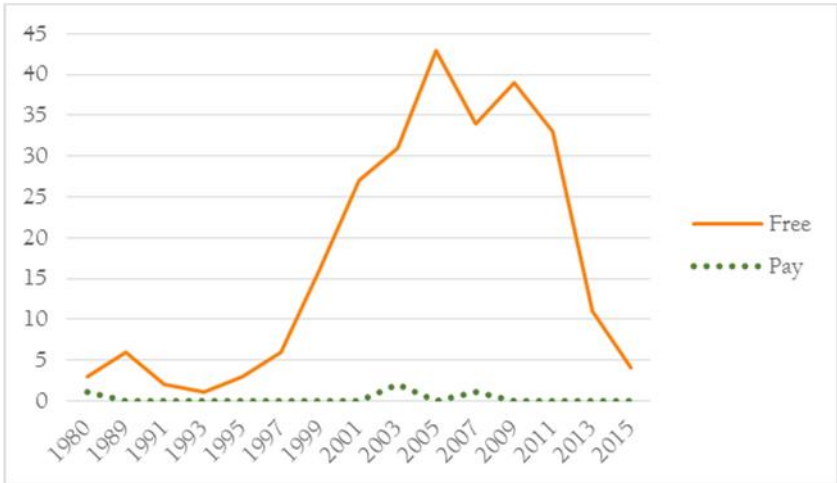
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	3	38	\$9,900	\$261
\$2-\$199	1	5	\$165	\$33
Free	259	6,224		
Total	263	6,267	\$10,065	\$2

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	238	99%	5,707	99%
Society/govt	17	88%	410	99%
Miscellaneous	8	100%	150	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	29	11.0%	
Grew 10-49%	48	18.3%	29.3%
Even, $\pm 9.99\%$	65	24.7%	54.0%
Shrank 10-49%	78	29.7%	83.7%
Shrank 50%+	37	14.1%	97.7%

Much more shrinkage than growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	86	33%	173
Journals/Pay	3	75%	1
Articles/Free	2,112	34%	4,112
Articles/Pay	20	47%	23

Fairly typical delisting rate for free journals—but only one pay journal remains in DOAJ.

**Subjects**

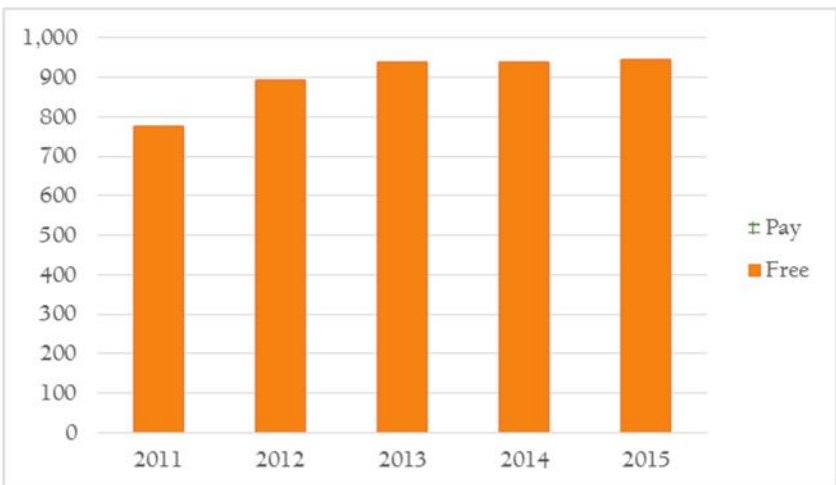
Subject	Journals	%Free	Articles	%Free
Medicine	44	100%	1,393	100%
Engineering	13	100%	496	100%
Sociology	20	100%	477	100%
Zoology	10	80%	443	99%
Economics	23	100%	385	100%
Psychology	14	93%	376	94%
Law	22	100%	370	100%
Agriculture	13	92%	355	96%
History	10	100%	260	100%
Education	18	100%	242	100%
Language & Literature	8	100%	203	100%
Political Science	7	100%	180	100%
Biology	4	100%	142	100%
Miscellany	5	100%	134	100%
Earth Sciences	6	100%	89	100%
Philosophy	4	100%	89	100%
Media & Communications	3	100%	81	100%
Other Sciences	6	100%	77	100%
Mathematics	4	100%	74	100%
Technology	4	100%	73	100%
Anthropology	4	100%	70	100%
Computer Science	5	100%	62	100%
Ecology	5	100%	60	100%
Arts & Architecture	5	100%	55	100%
Religion	2	100%	35	100%
Chemistry	2	100%	30	100%
Library Science	1	100%	16	100%
Physics	1	100%	0	

# Costa Rica

All 31 of Costa Rica's OAWorld open access journals are free.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	40	41	41	39	39
Articles	946	939	939	891	775



Growing, if slowly.



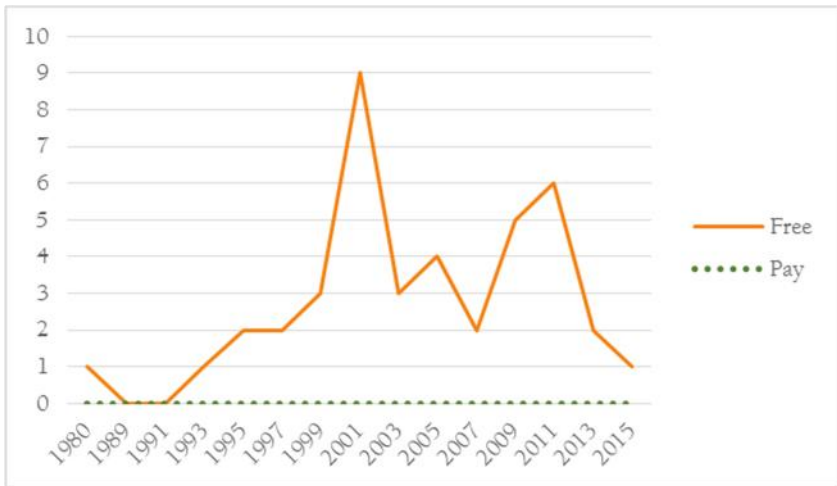
**Article Volume**

	Journals	Articles
Med.: 60-149	3	237
Small: 20-59	12	414
Smallest: 0-19	26	295

**Publisher Category**

Category	Journals	Articles
Univ/college	36	864
Society/govt	3	57
Miscellaneous	2	25

**Starting Date**



**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	8	19.5%	
Grew 10-49%	9	22.0%	41.5%
Even, $\pm$ 9.99%	4	9.8%	51.2%
Shrank 10-49%	15	36.6%	87.8%
Shrank 50%+	5	12.2%	100.0%

More shrinkage than growth, and very few stable journals.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	10	24%	31
Articles/Free	260	27%	686

Fairly typical delisting percentage.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Education	4	188
Medicine	8	170
Agriculture	4	161
Other Sciences	3	105
Anthropology	4	51
Economics	3	41
Psychology	3	40
Religion	1	31
History	1	28
Mathematics	1	24
Earth Sciences	2	22
Sociology	2	21
Law	1	20
Philosophy	1	18
Library Science	1	17
Ecology	1	5
Political Science	1	4

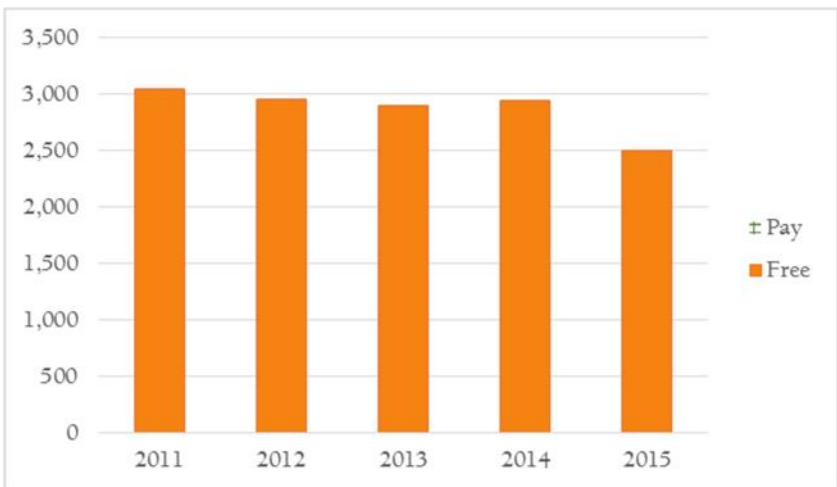
# Cuba

Cuba has 68 OAWorld open access journals. None of them have APCs.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	63	64	67	65	65
Articles	2,493	2,944	2,892	2,955	3,040

Down sharply in 2015 after mild declines from peak in 2011.



**Article Volume**

	Journals	Articles
Large: 150-599	1	183
Med.: 60-149	9	738
Small: 20-59	43	1,452
Smallest: 0-19	15	120

**Publisher Category**

Category	Journals	Articles
Univ/college	36	1,463
Society/govt	26	896
Miscellaneous	6	134

Most “Society/govt” is government in this case.

**Starting Date**



**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	5.9%	
Grew 10-49%	9	13.2%	19.1%
Even, $\pm 9.99\%$	21	30.9%	50.0%
Shrank 10-49%	21	30.9%	80.9%
Shrank 50%+	9	13.2%	94.1%

Much more shrinkage than growth.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	36	53%	32
Articles/Free	1,475	59%	1,018

Very high delisting rate.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Medicine	34	1,495
Agriculture	7	247
Engineering	5	140
Education	3	95
Miscellany	1	89
Technology	3	71
Computer Science	1	56
Earth Sciences	2	39
Other Sciences	1	36
Arts & Architecture	2	35
Sociology	1	34
Library Science	2	32
Biology	1	30
Zoology	1	30
Mathematics	1	28
Ecology	1	23
Political Science	1	13
Anthropology	1	0

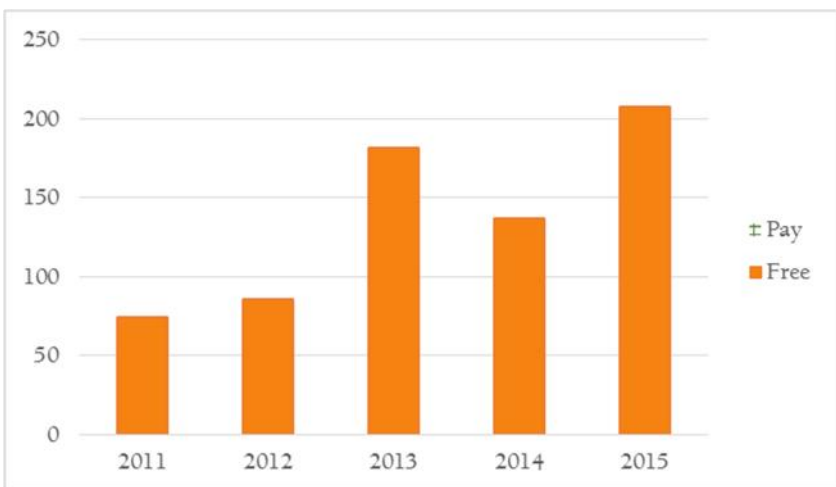
Half the journals and more than half the articles are medical.

# Ecuador

Ecuador has 11 OAWorld open access journals—all free and all still in DOAJ.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	10	11	10	8	6
Articles	208	137	182	86	74





**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Small: 20-59	4	132
Smallest: 0-19	7	76

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	10	172
Miscellaneous	1	36

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	6	54.5%	
Grew 10-49%	2	18.2%	72.7%
Even, $\pm$ 9.99%	1	9.1%	81.8%
Shrank 10-49%	1	9.1%	90.9%
Shrank 50%+	1	9.1%	100.0%

**Subjects**

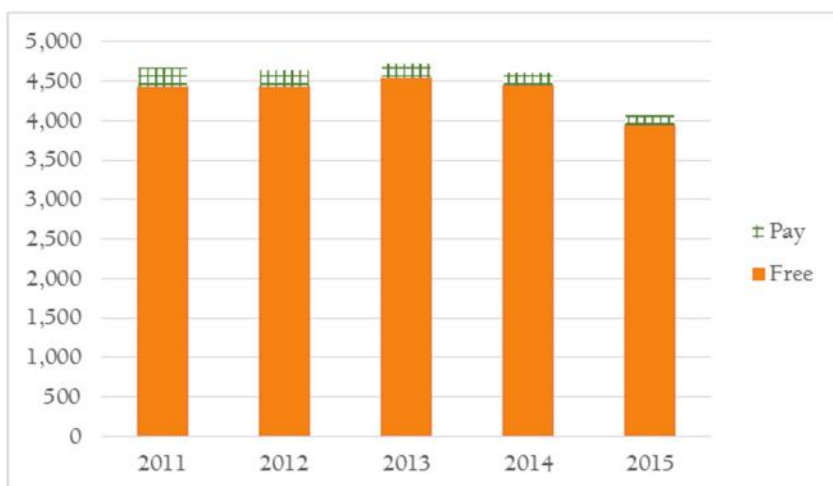
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Sociology	2	55
Education	2	36
Engineering	1	32
History	1	25
Media & Communications	1	17
Computer Science	1	16
Ecology	1	16
Arts & Architecture	1	7
Law	1	4

# Mexico

Mexico has 155 OAWorld open access journals. In 2015, average cost for articles in APC-charging journals was \$197; overall average, \$6.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	141	149	151	150	145
%Free	96%	96%	96%	96%	96%
Articles	4,068	4,606	4,728	4,641	4,676
%Free	97%	97%	96%	96%	95%



Slight drop in 2015, both free and pay.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	13	100%	1,069	100%
Small: 20-59	76	96%	2,406	96%
Smallest: 0-19	66	95%	593	93%

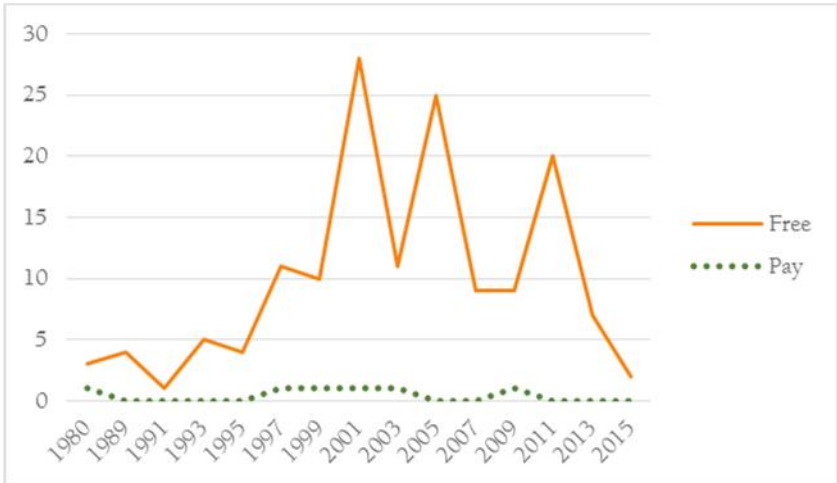
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	43	\$16,417	\$382
\$2-\$199	4	86	\$8,950	\$104
Free	149	3,939		
Total	155	4,068	\$25,367	\$6

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	125	98%	3,381	98%
Society/govt	15	80%	357	86%
Miscellaneous	14	100%	319	100%
Open Access	1	100%	11	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	18	11.6%	
Grew 10-49%	25	16.1%	27.7%
Even, $\pm$ 9.99%	44	28.4%	56.1%
Shrank 10-49%	37	23.9%	80.0%
Shrank 50%+	25	16.1%	96.1%

More shrinkage than growth, with a solid even group.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	70	47%	79
Journals/Pay	4	67%	2
Articles/Free	1,600	41%	2,339
Articles/Pay	68	53%	61

Very high delisting percentage, especially among pay journals.

**Subjects**

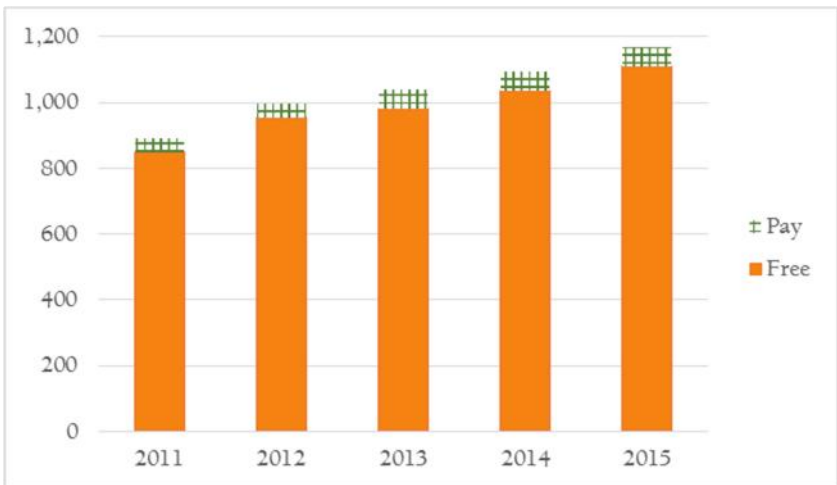
Subject	Journals	%Free	Articles	%Free
Sociology	20	100%	613	100%
Education	15	100%	429	100%
Agriculture	8	63%	371	82%
Economics	15	93%	371	93%
Medicine	10	100%	280	100%
Earth Sciences	10	90%	252	92%
Ecology	7	100%	195	100%
Political Science	7	100%	167	100%
Law	6	100%	161	100%
Engineering	5	100%	140	100%
Miscellany	5	100%	120	100%
Other Sciences	3	100%	117	100%
History	6	100%	113	100%
Psychology	4	100%	112	100%
Zoology	5	100%	107	100%
Physics	3	67%	99	85%
Anthropology	4	100%	86	100%
Arts & Architecture	4	100%	71	100%
Computer Science	2	100%	62	100%
Media & Communications	4	100%	50	100%
Biology	2	100%	46	100%
Library Science	1	100%	33	100%
Language & Literature	2	100%	22	100%
Philosophy	3	100%	22	100%
Mathematics	2	100%	16	100%
Technology	1	100%	13	100%
Chemistry	1	100%	0	

# Peru

Peru has 45 OAWorld open access journals. In 2015, the average cost per article in APC-charging journals was \$132; overall average was \$7.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	39	42	44	45	44
%Free	95%	95%	95%	96%	95%
Articles	1,169	1,094	1,038	996	893
%Free	95%	95%	94%	96%	95%



Free journals grow every year; pay flat at 58 articles since 2013.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	3	100%	315	100%
Small: 20-59	19	89%	649	91%
Smallest: 0-19	23	100%	205	100%

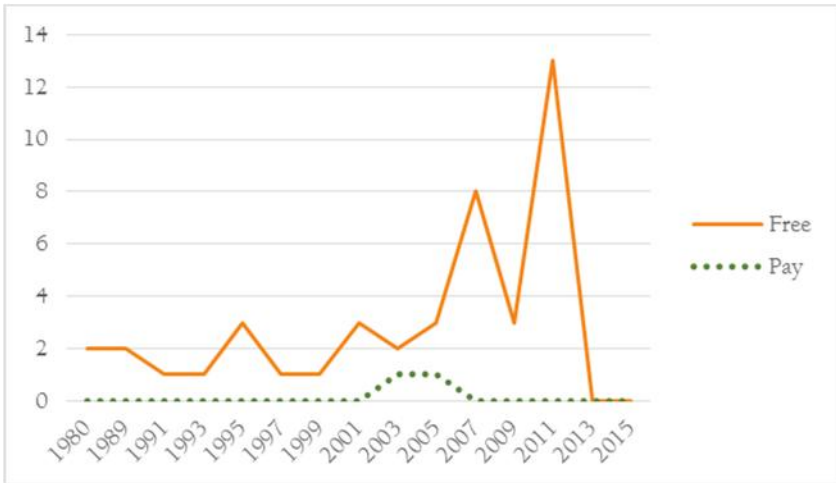
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$2-\$199	2	58	\$7,640	\$132
Free	43	1,111		
Total	45	1,169	\$7,640	\$7

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	37	97%	946	98%
Society/govt	5	80%	172	78%
Miscellaneous	3	100%	51	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	8	17.8%	
Grew 10-49%	10	22.2%	40.0%
Even, $\pm 9.99\%$	13	28.9%	68.9%
Shrank 10-49%	7	15.6%	84.4%
Shrank 50%+	4	8.9%	93.3%

Considerably more growth than shrinkage.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	12	28%	31
Journals/Pay	2	100%	0
Articles/Free	364	33%	747
Articles/Pay	58	100%	0

Fairly typical free journal delisting; unusual that all pay journals gone.



**Subjects**

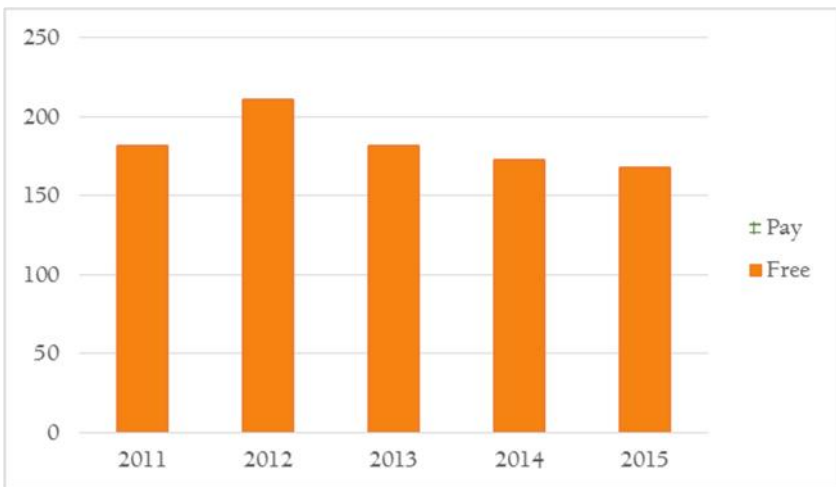
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	9	100%	497	100%
Zoology	3	100%	138	100%
Biology	2	100%	62	100%
Psychology	3	100%	53	100%
Other Sciences	1	100%	50	100%
Economics	3	100%	47	100%
Language & Literature	2	100%	41	100%
Law	2	100%	38	100%
Chemistry	1	0%	37	0%
Philosophy	2	100%	37	100%
Ecology	2	50%	35	40%
Education	3	100%	35	100%
Anthropology	2	100%	25	100%
Agriculture	1	100%	23	100%
Media & Communications	2	100%	13	100%
Sociology	2	100%	13	100%
Political Science	1	100%	12	100%
Earth Sciences	1	100%	8	100%
Miscellany	1	100%	5	100%
History	1	100%	0	
Library Science	1	100%	0	

# Uruguay

Uruguay has ten OAWorld open access journals, all free and all still in DOAJ.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	9	10	10	10	10
Articles	168	173	182	211	182



Slightly down each year since 2012 peak.

**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Small: 20-59	4	115
Smallest: 0-19	6	53

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	7	124
Miscellaneous	3	44

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1	10.0%	
Grew 10-49%	1	10.0%	20.0%
Even, ±9.99%	4	40.0%	60.0%
Shrank 10-49%	2	20.0%	80.0%
Shrank 50%+	2	20.0%	100.0%

More shrinkage than growth.

**Subjects**

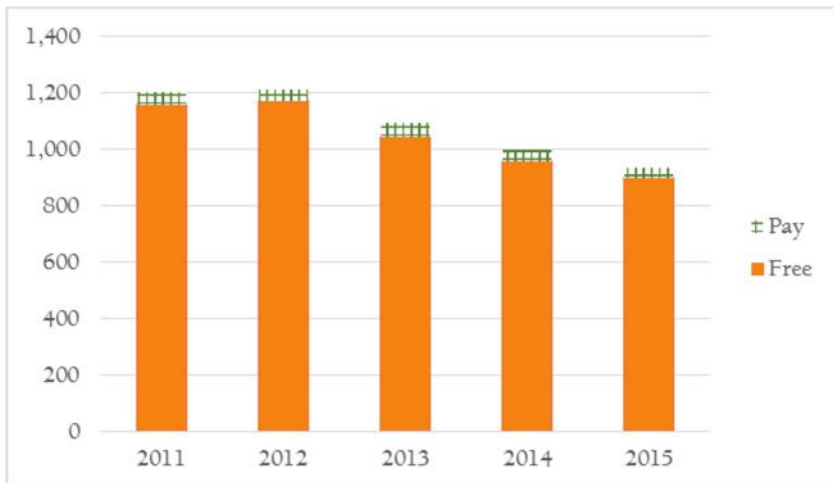
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Psychology	2	56
Ecology	1	34
Law	1	25
Medicine	1	16
Education	1	15
Technology	1	10
Engineering	1	7
Library Science	1	5
Economics	1	0

# Venezuela, Bolivarian Republic of

Venezuela has 53 OAWorld open access journals. Average cost per article in 2015 in APC-charging journals was \$100; overall average, \$4.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	40	48	51	52	52
%Free	95%	96%	96%	96%	96%
Articles	936	997	1,095	1,212	1,204
%Free	96%	96%	95%	97%	96%



Slow ongoing losses from 2012 peak.

### Article Volume

	Journals	%Free	Articles	%Free
Med.: 60-149	2	100%	194	100%
Small: 20-59	13	92%	420	94%
Smallest: 0-19	38	97%	322	97%

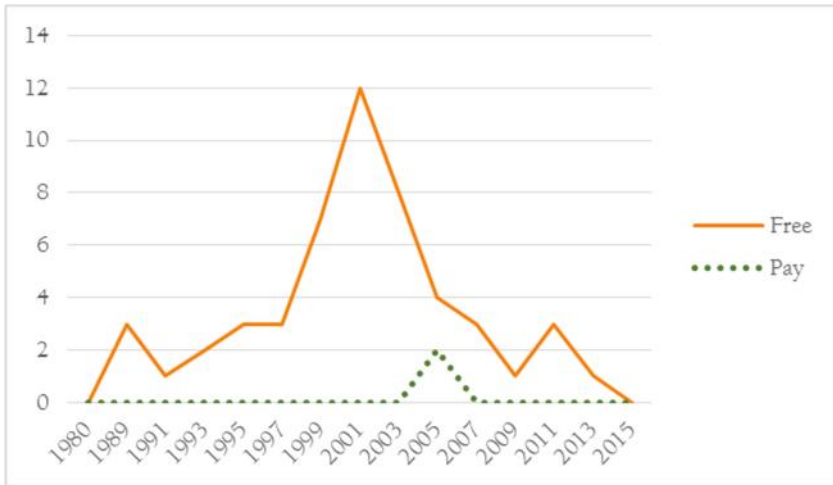
### APC Levels and Revenues

	Journals	Articles	Revenue	\$/article
\$2-\$199	2	35	\$3,500	\$100
Free	51	901		
Total	53	936	\$3,500	\$4

### Publisher Category

Category	Journals	%Free	Articles	%Free
Univ/college	44	95%	679	95%
Miscellaneous	4	100%	183	100%
Society/govt	5	100%	74	100%

**Starting Date**



2001 was a big year for Venezuelan OA.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	8	15.1%	
Grew 10-49%	7	13.2%	28.3%
Even, ±9.99%	7	13.2%	41.5%
Shrank 10-49%	13	24.5%	66.0%
Shrank 50%+	13	24.5%	90.6%

Much more shrinkage than growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	33	65%	18
Journals/Pay	0	0%	2
Articles/Free	493	55%	408
Articles/Pay	0	0%	35

Very high rate of delisting among free journals.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	9	100%	151	100%
Other Sciences	3	100%	119	100%
Sociology	7	100%	119	100%
Economics	4	75%	88	72%
Miscellany	2	100%	85	100%
Zoology	5	100%	78	100%
Agriculture	5	100%	55	100%
Engineering	1	100%	37	100%
Language & Literature	3	100%	37	100%
Philosophy	2	100%	35	100%
Education	3	100%	23	100%
History	1	100%	23	100%
Chemistry	1	100%	19	100%
Library Science	1	100%	18	100%
Earth Sciences	1	100%	15	100%
Ecology	1	100%	14	100%
Media & Communications	1	0%	10	0%
Political Science	1	100%	10	100%
Law	1	100%	0	
Mathematics	1	100%	0	

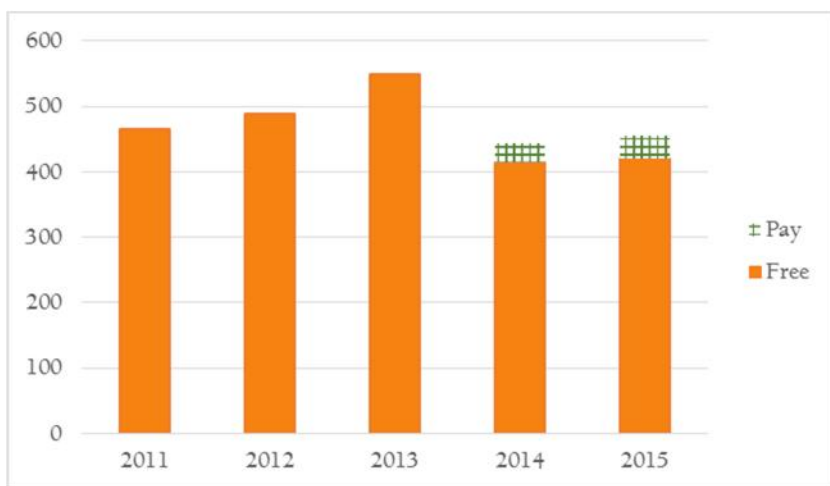


## Other Latin American and Caribbean Countries

This group has 26 OAWorld open access journals. Average cost per article in the fee journal in 2015 was \$1,000; average overall, \$77.

### Journals and Articles

	2015	2014	2013	2012	2011
Journals	23	24	24	21	20
%Free	96%	96%	100%	100%	100%
Articles	456	443	550	489	465
%Free	92%	93%	100%	100%	100%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	12	92%	350	90%
Smallest: 0-19	14	100%	106	100%

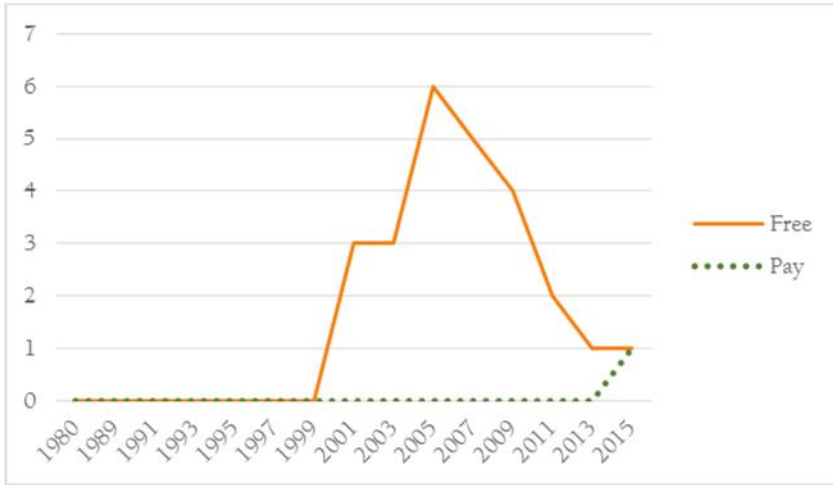
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	35	\$35,000	\$1,000
Free	25	421		
Total	26	456	\$35,000	\$77

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	19	95%	300	88%
Miscellaneous	4	100%	98	100%
Society/govt	3	100%	58	100%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	15.4%	
Grew 10-49%	8	30.8%	46.2%
Even, ±9.99%	4	15.4%	61.5%
Shrank 10-49%	3	11.5%	73.1%
Shrank 50%+	5	19.2%	92.3%

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	11	44%	14
Journals/Pay	0	0%	1
Articles/Free	148	35%	273
Articles/Pay	0	0%	35

High delisting rate among free journals.

## Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	7	86%	132	73%
Economics	4	100%	84	100%
Other Sciences	2	100%	42	100%
Law	1	100%	41	100%
Sociology	1	100%	38	100%
Education	1	100%	29	100%
Ecology	2	100%	22	100%
Earth Sciences	1	100%	21	100%
Physics	1	100%	12	100%
History	1	100%	9	100%
Philosophy	1	100%	9	100%
Psychology	1	100%	7	100%
Language & Literature	1	100%	6	100%
Technology	1	100%	4	100%
Library Science	1	100%	0	

## Country Summaries

### Bahamas

One very small free education journal with nine articles in 2014 and in 2015.

### Barbados

One small free education journal with 29 2015 articles, up from 22 in 2014.

### **Bolivia, Plurinational State of**

Seven free journals, three small, four very small, with three in medicine; six of the seven journals are now gray OA. In all, 122 articles in 2015, down from 143 in 2014.

### **British Virgin Islands**

One very small free language & literature journal with six articles in 2015, up from four in 2014.

### **Dominican Republic**

One small free economics journal, now gray OA, with 30 articles in 2015, down from 34 in 2014.

### **Guatemala**

Three free journals, one small and two very small; one now gray OA. Total of 28 articles in 2015, up from 21 in 2014.

### **Jamaica**

Technically, two journals—but one moved to a different URL in 2014 and became a subscription journal, spinning off the other as an APC-charging journal. 35 articles in 2015, down from 56 in 2014.

### **Martinique**

One free small economics journal with 30 articles in 2015, up from 25 in 2014.

### **Nicaragua**

Four free journals, two small and two very small. Total of 67 articles in 2015, up from 36 in 2014.

### **Paraguay**

Three free small journals. In all, 87 articles in 2015, up from 64 in 2014.

**Puerto Rico**

Two free journals, one now very small and one with no articles since 2013; both are now gray OA. 13 articles in 2015, down from 29 in 2014.

## Middle East

The Middle East has 675 OAWorld open access journals. 2015 average cost per article in APC-charging journals: \$291. Overall average: \$62.

### Journals and Articles

	2015	2014	2013	2012	2011
Journals	642	657	626	556	458
%Free	85%	85%	85%	84%	85%
Articles	31,237	30,189	27,457	24,583	19,149
%Free	79%	77%	78%	76%	77%

Pay journals published fewer articles in 2015, but overall output increased every year.

### Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	2	100%	1,652	100%
Large: 150-599	28	50%	6,366	47%
Med.: 60-149	105	84%	9,153	84%
Small: 20-59	350	87%	12,236	86%
Smallest: 0-19	190	88%	1,830	91%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	40	\$79,800	\$1,995
\$600-\$1.399	10	739	\$694,785	\$940
\$200-\$599	31	2,457	\$808,155	\$329
\$2-\$199	59	3,443	\$363,213	\$105
Free	574	24,558		
Total	675	31,237	\$1,945,953	\$62

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	367	89%	15,892	85%
Miscellaneous	162	86%	7,858	78%
Open Access	67	57%	3,271	56%
Society/govt	60	93%	2,998	91%
Traditional	19	63%	1,218	28%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	98	14.5%	
Grew 10-49%	154	22.8%	37.3%
Even, $\pm$ 9.99%	169	25.0%	62.4%
Shrank 10-49%	163	24.1%	86.5%
Shrank 50%+	73	10.8%	97.3%

Slightly more growth than shrinkage.



**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	202	35%	372
Journals/Pay	20	20%	81
Articles/Free	9,345	38%	15,213
Articles/Pay	1,546	23%	5,133

Fairly high delisting percentage for free journals, fairly low for pay.

**Subjects**

Medicine accounts for almost half of all articles.

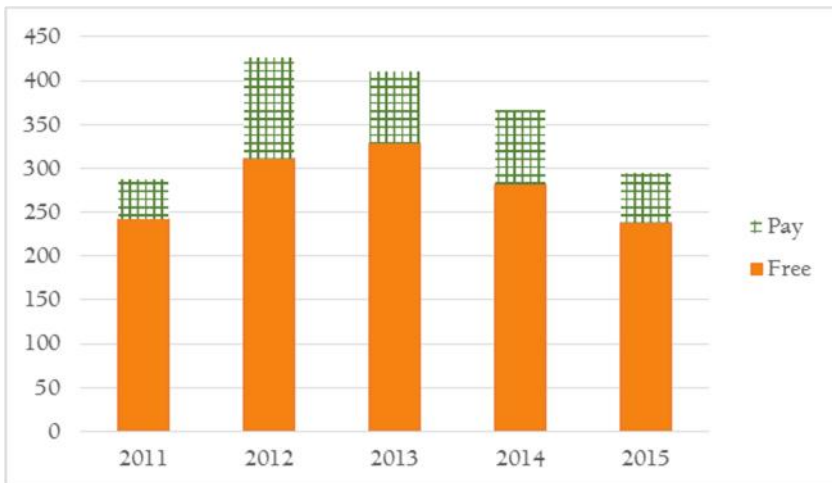
Subject	Journals	%Free	Articles	%Free
Medicine	283	89%	15,070	82%
Education	65	91%	1,839	83%
Agriculture	25	64%	1,317	78%
Economics	30	67%	1,259	44%
Engineering	26	85%	1,228	77%
Biology	28	86%	1,135	71%
Sociology	20	80%	1,134	74%
Other Sciences	18	61%	1,093	37%
Language & Literature	17	88%	1,050	99%
Miscellany	7	100%	1,048	100%
Zoology	20	50%	952	60%
Mathematics	24	88%	666	82%
Computer Science	16	75%	594	55%
Arts & Architecture	13	92%	405	100%
Chemistry	8	100%	389	100%
Anthropology	10	80%	383	67%
History	10	100%	276	100%
Ecology	8	63%	233	49%
Earth Sciences	9	100%	231	100%
Physics	5	100%	206	100%
Library Science	7	100%	150	100%
Political Science	7	100%	137	100%
Religion	7	86%	124	84%
Media & Communications	3	100%	89	100%
Psychology	3	100%	84	100%
Technology	2	100%	75	100%
Philosophy	3	67%	54	85%
Law	1	100%	16	100%

# Egypt

Egypt has 16 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$234; overall average was \$46.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	13	15	15	14	14
%Free	77%	73%	73%	79%	79%
Articles	295	366	410	427	288
%Free	80%	77%	80%	73%	84%



Pay journals peaked in 2012, free journals in 2013.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	1	100%	69	100%
Small: 20-59	6	67%	169	73%
Smallest: 0-19	9	78%	57	79%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	3	37	\$11,450	\$309
\$2-\$199	1	21	\$2,100	\$100
Free	12	237		
Total	16	295	\$13,550	\$46

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	8	75%	193	81%
Society/govt	3	100%	40	100%
Univ/college	2	50%	35	100%
Open Access	3	67%	27	22%

Note that Hindawi is part of APCLand and not included in this book.

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1	6.3%	
Grew 10-49%	1	6.3%	12.5%
Even, $\pm 9.99\%$	4	25.0%	37.5%
Shrank 10-49%	5	31.3%	68.8%
Shrank 50%+	4	25.0%	93.8%

Much more shrinkage than growth.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	5	42%	7
Journals/Pay	2	50%	2
Articles/Free	48	20%	189
Articles/Pay	33	57%	25

High delisting percentage for both free and pay journals.

**Subjects**

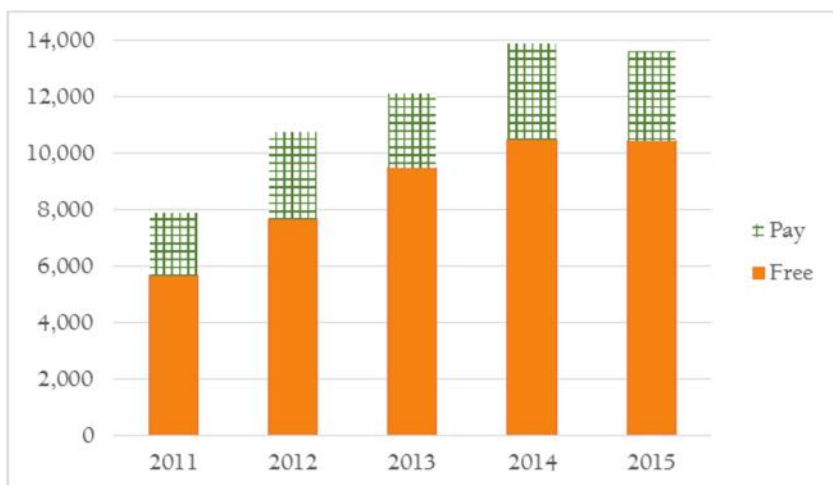
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	3	100%	93	100%
Mathematics	3	67%	62	66%
Other Sciences	2	50%	49	49%
History	1	100%	41	100%
Library Science	1	100%	23	100%
Anthropology	1	0%	12	0%
Computer Science	2	100%	8	100%
Biology	2	100%	7	100%
Language & Literature	1	0%	0	

# Iran, Islamic Republic of

Iran has 297 OAWorld open access journals. In 2015, average cost per article for APC-charging journals was \$275; overall average, \$64.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	284	291	267	226	168
%Free	84%	84%	83%	81%	82%
Articles	13,621	13,905	12,143	10,767	7,900
%Free	77%	75%	78%	71%	71%



The small dip in 2015 is mostly pay journals.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	14	57%	3,060	53%
Med.: 60-149	42	76%	3,718	77%
Small: 20-59	177	89%	6,240	87%
Smallest: 0-19	64	84%	603	85%

**APC Levels and Revenues**

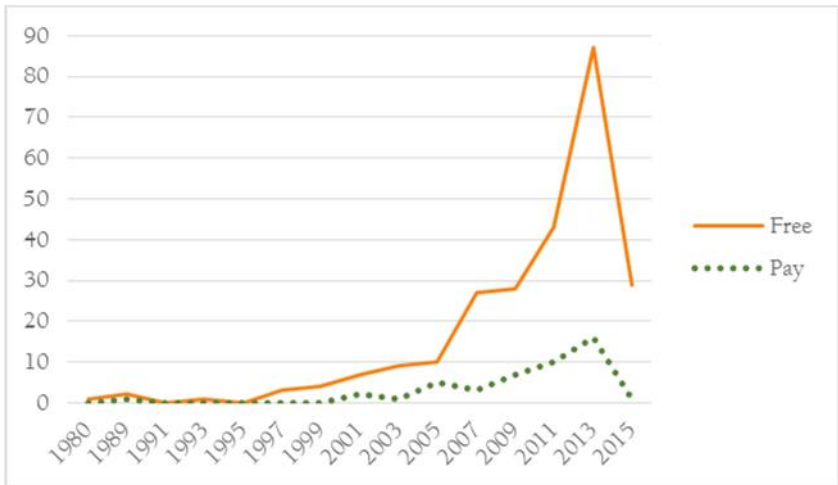
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	5	329	\$246,284	\$749
\$200-\$599	11	1,200	\$427,427	\$356
\$2-\$199	30	1,631	\$193,900	\$119
Free	251	10,461		
Total	297	13,621	\$867,611	\$64

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	216	90%	10,135	84%
Miscellaneous	35	86%	1,394	78%
Traditional	15	60%	852	28%
Society/govt	18	94%	725	91%
Open Access	13	0%	515	0%

University publishers dominate even more than elsewhere.

### Starting Date



Several universities started or expanded OA in 2012-2013.

### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	34	11.4%	
Grew 10-49%	69	23.2%	34.7%
Even, $\pm 9.99\%$	89	30.0%	64.6%
Shrank 10-49%	67	22.6%	87.2%
Shrank 50%+	32	10.8%	98.0%

Just slightly more growth than shrinkage; sizable even group.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	75	30%	176
Journals/Pay	9	20%	37
Articles/Free	3,480	33%	6,981
Articles/Pay	626	20%	2,534

Typical delisting rate for free journals, fairly low for pay journals.



**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	175	88%	9,312	77%
Biology	17	76%	796	58%
Engineering	10	100%	495	100%
Mathematics	13	92%	407	90%
Zoology	10	30%	381	41%
Agriculture	7	57%	329	81%
Education	10	100%	290	100%
Ecology	6	67%	201	54%
Earth Sciences	7	100%	190	100%
Economics	6	100%	183	100%
Computer Science	3	67%	179	37%
Other Sciences	4	50%	139	60%
Chemistry	3	100%	122	100%
Sociology	4	50%	110	57%
Language & Literature	5	80%	88	88%
Psychology	3	100%	84	100%
Physics	2	100%	76	100%
Library Science	3	100%	65	100%
Technology	1	100%	59	100%
Political Science	1	100%	34	100%
Philosophy	2	50%	33	76%
Anthropology	2	100%	20	100%
Religion	2	50%	20	0%
Media & Communications	1	100%	8	100%

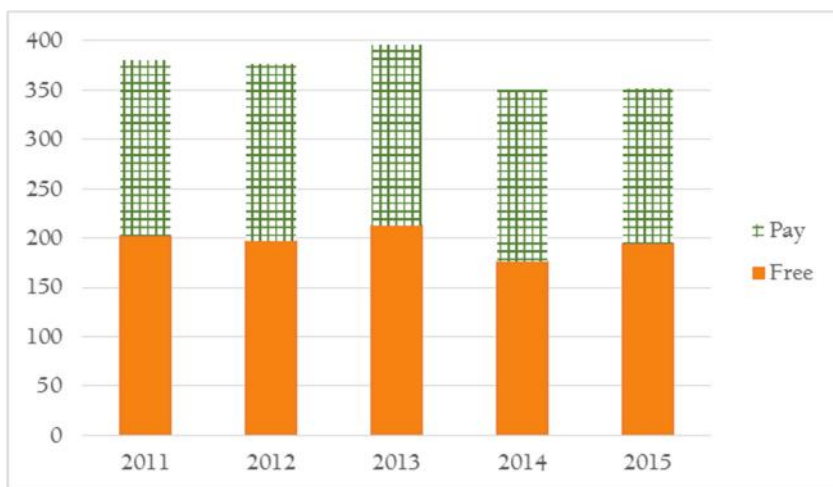
Medicine accounts for more than two-thirds of all articles.

# Israel

Israel has 13 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$29; overall average was \$13.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	11	12	13	13	11
%Free	82%	83%	85%	85%	91%
Articles	352	350	396	377	380
%Free	55%	50%	54%	52%	53%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	0%	156	0%
Small: 20-59	5	100%	156	100%
Smallest: 0-19	7	86%	40	95%

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$200-\$599	1	2	\$520	\$260
\$2-\$199	1	156	\$4,056	\$26
Free	11	194		
Total	13	352	\$4,576	\$13

The one large journal charges nominal fees.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Society/govt	4	50%	168	6%
Univ/college	5	100%	94	100%
Miscellaneous	4	100%	90	100%

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	15.4%	
Grew 10-49%	2	15.4%	30.8%
Even, ±9.99%	3	23.1%	53.8%
Shrank 10-49%	2	15.4%	69.2%
Shrank 50%+	3	23.1%	92.3%

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	5	45%	6
Journals/Pay	1	50%	1
Articles/Free	73	38%	121
Articles/Pay	156	99%	2

High delisting percentage, including the only large journal.

**Subjects**

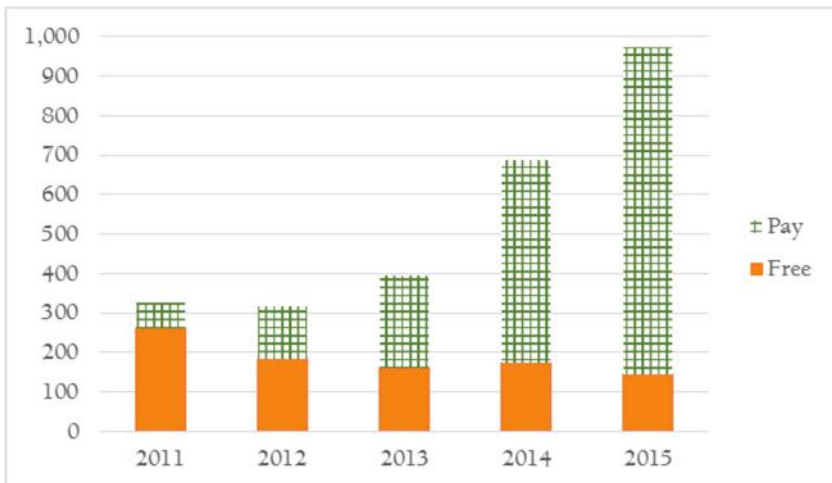
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	2	50%	199	22%
Political Science	3	100%	49	100%
History	2	100%	39	100%
Language & Literature	3	100%	36	100%
Arts & Architecture	2	50%	29	93%
Zoology	1	100%	0	

# Jordan

Jordan has ten OAWorld open access journals. In 2015, the average cost per article in APC-charging journals was \$160; overall average \$137.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	8	9	10	10	9
%Free	63%	67%	70%	70%	78%
Articles	973	687	394	318	325
%Free	15%	25%	41%	57%	80%



An extreme case: 85% of articles from the 37% pay journals.

**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	2	0%	734	0%
Med.: 60-149	1	0%	95	0%
Small: 20-59	3	100%	122	100%
Smallest: 0-19	4	100%	22	100%

**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$200-\$599	2	245	\$71,500	\$292
\$2-\$199	1	584	\$61,320	\$105
Free	7	144		
Total	10	973	\$132,820	\$137

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Miscellaneous	5	40%	876	5%
Univ/college	4	100%	97	100%
Society/govt	1	100%	0	

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	1	10.0%	
Grew 10-49%	3	30.0%	40.0%
Even, $\pm$ 9.99%	2	20.0%	60.0%
Shrank 10-49%	2	20.0%	80.0%
Shrank 50%+	1	10.0%	90.0%

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	4	57%	3
Journals/Pay	1	33%	2
Articles/Free	69	48%	75
Articles/Pay	150	18%	679

High delisting percentage for free journals and articles.

**Subjects**

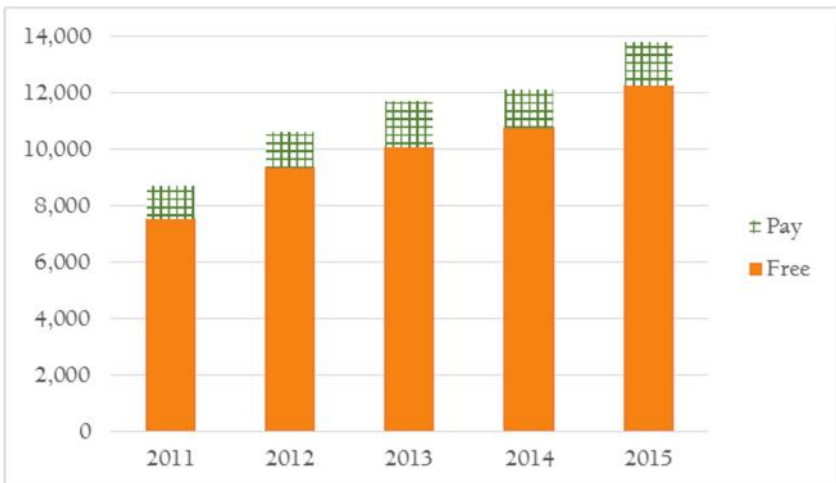
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Other Sciences	1	0%	584	0%
Education	1	0%	150	0%
Computer Science	5	80%	144	34%
Biology	1	100%	53	100%
Engineering	1	100%	32	100%
Medicine	1	100%	10	100%

# Turkey

Turkey has 295 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$313; overall average was \$36.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	285	290	281	256	228
%Free	92%	91%	91%	91%	92%
Articles	13,838	12,136	11,719	10,614	8,724
%Free	88%	89%	86%	88%	86%



Pay articles not quite back to 2013 peak; free keep rising.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	100%	1,652	100%
Large: 150-599	9	56%	1,960	60%
Med.: 60-149	51	94%	4,371	93%
Small: 20-59	140	90%	4,835	91%
Smallest: 0-19	93	96%	1,020	97%

Unusual, with largest journals free.

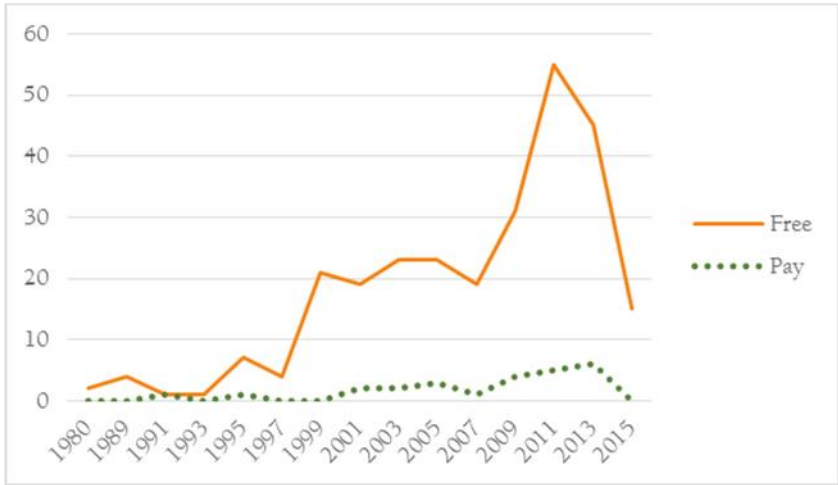
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	2	140	\$177,120	\$1,265
\$200-\$599	10	801	\$262,858	\$328
\$2-\$199	13	651	\$57,916	\$89
Free	270	12,246		
Total	295	13,838	\$497,894	\$36

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	103	90%	5,002	89%
Univ/college	119	93%	4,801	90%
Open Access	39	85%	2,178	76%
Society/govt	32	97%	1,841	98%
Traditional	2	100%	16	100%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	54	18.3%	
Grew 10-49%	69	23.4%	41.7%
Even, ±9.99%	59	20.0%	61.7%
Shrank 10-49%	81	27.5%	89.2%
Shrank 50%+	27	9.2%	98.3%

Much more fast growth than fast shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	104	39%	166
Journals/Pay	5	20%	20
Articles/Free	4,979	41%	7,267
Articles/Pay	320	20%	1,272

Somewhat high delisting rate for free journals, on low side for pay.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	86	99%	4,344	99%
Education	51	92%	1,272	90%
Miscellany	5	100%	1,023	100%
Sociology	15	93%	985	79%
Economics	22	64%	958	39%
Language & Literature	7	100%	926	100%
Agriculture	16	69%	782	82%
Zoology	7	71%	517	69%
Engineering	9	89%	496	63%
Arts & Architecture	11	100%	376	100%
Anthropology	7	86%	351	67%
Biology	8	100%	279	100%
Other Sciences	8	88%	274	94%
Chemistry	5	100%	267	100%
Computer Science	4	100%	206	100%
History	7	100%	196	100%
Mathematics	7	100%	141	100%
Religion	5	100%	104	100%
Media & Communications	2	100%	81	100%
Library Science	3	100%	62	100%
Political Science	3	100%	54	100%
Earth Sciences	2	100%	41	100%
Physics	1	100%	34	100%
Ecology	2	50%	32	19%
Philosophy	1	100%	21	100%
Technology	1	100%	16	100%

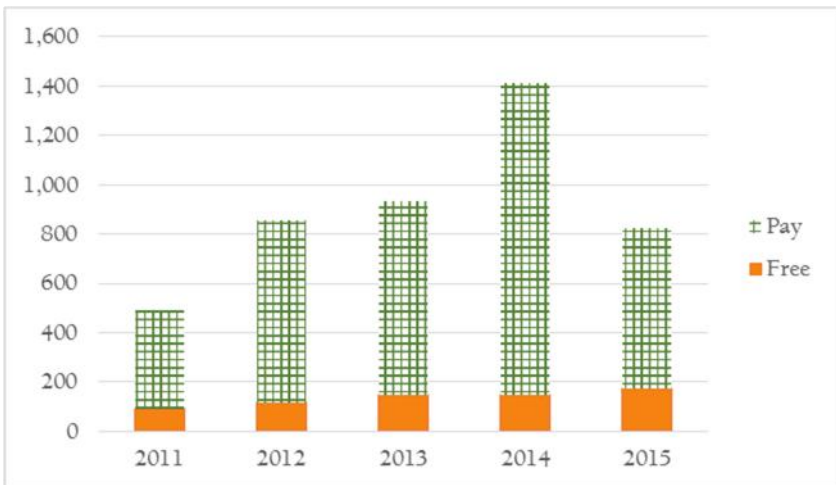
Medicine largest subject but not dominant or majority.

# United Arab Emirates

The UAE have 14 OAWorld open access journals. Average cost per article in APC-charging journals in 2015: \$484. Overall average: \$381

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	13	13	13	13	8
%Free	23%	23%	23%	23%	38%
Articles	823	1,411	933	857	491
%Free	21%	10%	16%	13%	18%



One very large (in 2014) pay journal has no more recent articles.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	0%	259	0%
Med.: 60-149	3	33%	244	49%
Small: 20-59	8	13%	308	14%
Smallest: 0-19	2	50%	12	100%

UAE unusual in having fees for most journals.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	259	\$260,036	\$1,004
\$200-\$599	3	141	\$28,200	\$200
\$2-\$199	7	249	\$25,690	\$103
Free	3	174		
Total	14	823	\$313,926	\$381

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	8	0%	368	0%
Traditional	1	0%	259	0%
Univ/college	1	100%	120	100%
Miscellaneous	4	50%	76	71%

Two OA publishers, four journals each.

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	21.4%	
Grew 10-49%	5	35.7%	57.1%
Even, $\pm 9.99\%$	2	14.3%	71.4%
Shrank 10-49%	2	14.3%	85.7%
Shrank 50%+	1	7.1%	92.9%

Much more growth than shrinkage at the journal level.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	3	100%	0
Journals/Pay	1	9%	10
Articles/Free	174	100%	0
Articles/Pay	259	40%	390

Only one delisted fee journal—but *all* the free journals delisted.

**Subjects**

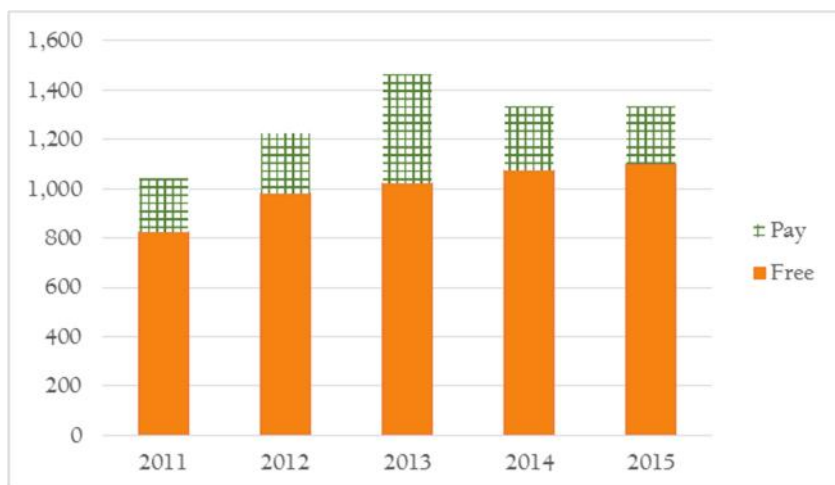
Subject	Journals	%Free	Articles	%Free
Medicine	2	0%	284	0%
Agriculture	1	100%	120	100%
Economics	2	0%	118	0%
Engineering	1	0%	60	0%
Computer Science	2	0%	57	0%
Mathematics	1	0%	56	0%
Education	2	50%	47	26%
Physics	1	100%	42	100%
Sociology	1	0%	39	0%
Other Sciences	1	0%	0	

## Other Middle East Countries

These countries have 30 OAWorld open access journals. Average cost per article in APC-charging journals in 2015: \$496. Overall: \$87.

### Journals and Articles

	2015	2014	2013	2012	2011
Journals	28	27	27	24	20
%Free	68%	70%	70%	71%	65%
Articles	1,335	1,334	1,462	1,223	1,041
%Free	83%	81%	70%	80%	79%



Free journals keep growing, pay journals peaked in 2013.

**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	100%	197	100%
Med.: 60-149	7	86%	656	87%
Small: 20-59	11	64%	406	70%
Smallest: 0-19	11	55%	76	68%

Just the opposite of typical pattern: higher fee % in smaller journals.

**APC Levels and Revenues**

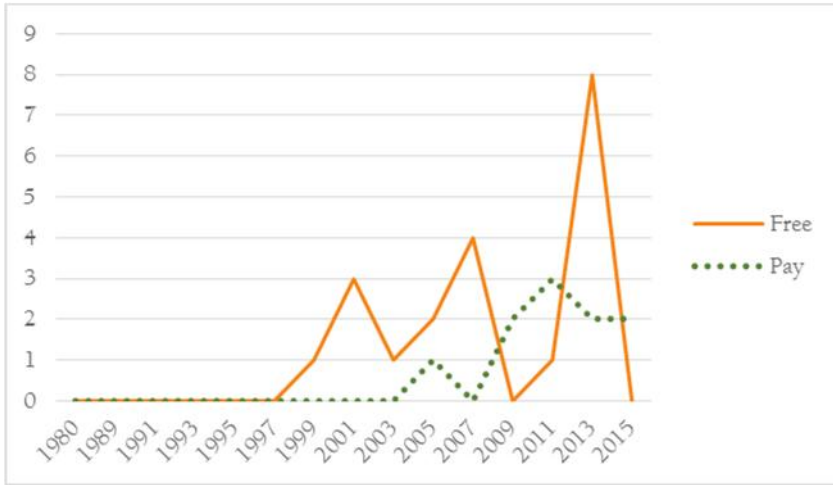
	Journals	Articles	Revenue	\$/article
\$1,400+	1	40	\$79,800	\$1,995
\$600-\$1,399	2	11	\$11,345	\$1,031
\$200-\$599	1	31	\$6,200	\$200
\$2-\$199	6	151	\$18,231	\$121
Free	20	1,102		
Total	30	1,335	\$115,576	\$87

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	20	55%	610	67%
Miscellaneous	3	100%	227	100%
Society/govt	2	100%	224	100%
Open Access	4	75%	183	83%
Traditional	1	100%	91	100%



**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	10.0%	
Grew 10-49%	5	16.7%	26.7%
Even, ±9.99%	10	33.3%	60.0%
Shrank 10-49%	4	13.3%	73.3%
Shrank 50%+	5	16.7%	90.0%

Slightly more shrinkage than growth, with a strong even core.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	6	30%	14
Journals/Pay	1	10%	9
Articles/Free	522	47%	580
Articles/Pay	2	1%	231

Typical free-journal delisting rate, trivial pay-journal rate.

## Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	14	64%	828	88%
Engineering	5	60%	145	72%
Agriculture	1	0%	86	0%
Education	1	100%	80	100%
Physics	1	100%	54	100%
Zoology	2	50%	54	100%
Other Sciences	2	50%	47	81%
Miscellany	2	100%	25	100%
Law	1	100%	16	100%
Language & Literature	1	100%	0	

## Country Summaries

### Bahrain

One medium-sized free education journal, now in gray OA. 80 articles in 2015, up from 79 in 2014.

### Iraq

Nine journals, all still in *DOAJ*: three APC-charging, six free. Total of 305 articles in 2015, down from 345 in 2014.

### Kuwait

Three free journals, all now in gray OA. Total of 167 articles in 2015, up from 161 in 2014.

### Oman

Two medium-sized free medical journals, both still in *DOAJ*. 201 articles in 2015, down from 207 in 2014.

### **Palestine, State of**

One small APC-charging engineering journal, still in *DOAJ*, with 32 articles in 2015, up from 24 in 2014.

### **Qatar**

Seven journals, one now gray OA. Three APC-charging, four free; two small, five very small; all but two medical. In all, 110 articles in 2015, up from 108 in 2014.

### **Saudi Arabia**

Five journals, all but one medical, and the fifth hasn't published any articles since 2011. Of the other four, one small one charges APCs; a medium sized free one is now gray OA, as is a free large one; and one free medium-sized one is still in *DOAJ*. Total of 426 articles in 2015, up from 386 in 2014.

### **Yemen**

Two very small journals, both still in *DOAJ*: one free, one with APCs. Total of 14 articles in 2015, down from 24 in 2014.

## Pacific/English

This group has 1,344 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$1,300. Overall: \$729.

### Journals and Articles

	2015	2014	2013	2012	2011
Journals	1,204	1,279	1,261	1,188	1,085
%Free	67%	66%	66%	67%	69%
Articles	55,372	51,276	46,039	42,991	39,109
%Free	44%	47%	50%	52%	52%

### Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	7	0%	11,938	0%
Large: 150-599	57	40%	15,977	37%
Med.: 60-149	111	56%	10,218	57%
Small: 20-59	334	72%	10,902	71%
Smallest: 0-19	835	69%	6,337	75%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	97	11,133	\$24,864,772	\$2,233
\$600-\$1.399	131	11,087	\$12,744,362	\$1,149
\$200-\$599	169	6,131	\$2,498,670	\$408
\$2-\$199	50	2,696	\$256,824	\$95
Free	897	24,325		
Total	1,344	55,372	\$40,364,628	\$729

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	335	79%	14,844	52%
Society/govt	180	79%	13,619	40%
Univ/college	486	95%	11,729	83%
Open Access	233	12%	11,721	11%
Traditional	110	3%	3,459	4%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	280	20.8%	
Grew 10-49%	217	16.1%	37.0%
Even, ±9.99%	217	16.1%	53.1%
Shrank 10-49%	304	22.6%	75.7%
Shrank 50%+	261	19.4%	95.2%

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	366	41%	531
Journals/Pay	153	34%	294
Articles/Free	9,332	38%	14,993
Articles/Pay	9,532	31%	21,515

High delisting rates, worse for free journals.

**Subjects**

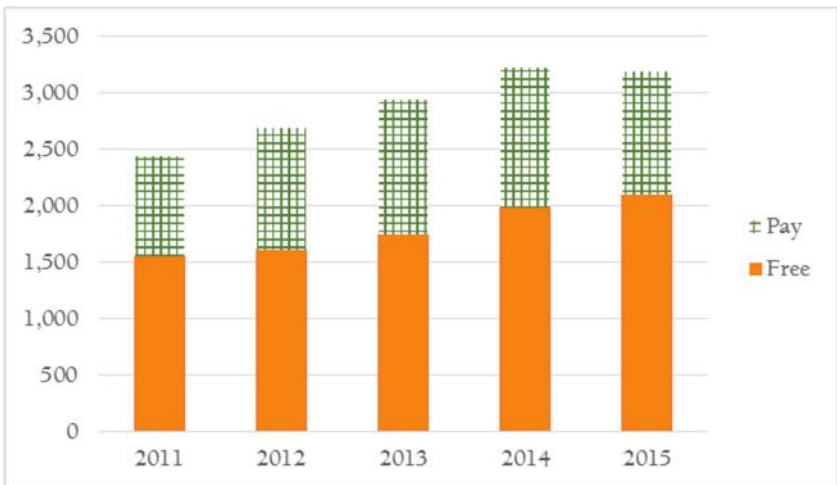
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	319	34%	19,524	31%
Physics	23	39%	5,514	12%
Education	138	90%	2,533	86%
Computer Science	42	55%	2,517	37%
Biology	47	36%	2,397	25%
Sociology	79	91%	2,373	62%
Language & Literature	82	94%	2,288	64%
Mathematics	47	91%	1,890	98%
History	48	98%	1,805	100%
Engineering	28	36%	1,766	7%
Other Sciences	18	50%	1,735	9%
Economics	63	70%	1,324	77%
Ecology	38	55%	1,217	62%
Religion	34	97%	932	47%
Library Science	38	97%	927	99%
Agriculture	34	44%	901	36%
Chemistry	11	27%	882	19%
Technology	18	61%	728	59%
Media & Communications	29	93%	692	80%
Arts & Architecture	34	94%	630	77%
Political Science	30	90%	564	92%
Zoology	15	27%	441	13%
Law	37	97%	378	100%
Anthropology	19	84%	358	82%
Psychology	21	48%	327	47%
Philosophy	24	96%	309	89%
Earth Sciences	17	47%	278	32%
Miscellany	11	82%	142	63%

# Australia

Australia has 114 OAWorld open access journals. Average cost in 2015 for articles in APC-charging journals: \$715. Overall average: \$245.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	104	110	105	96	92
%Free	86%	85%	85%	88%	88%
Articles	3,190	3,221	2,947	2,690	2,438
%Free	66%	61%	59%	60%	64%



Decline in 2015 is entirely pay journals; free ones keep growing.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	4	50%	701	52%
Med.: 60-149	9	44%	920	38%
Small: 20-59	29	83%	912	82%
Smallest: 0-19	72	94%	657	96%

No very large journals.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	5	534	\$676,586	\$1,267
\$200-\$599	2	205	\$55,624	\$271
\$2-\$199	9	356	\$50,514	\$142
Free	98	2,095		
Total	114	3,190	\$782,724	\$245

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	13	23%	1,027	21%
Univ/college	60	98%	1,011	99%
Miscellaneous	27	85%	944	74%
Society/govt	14	93%	208	88%

Universities publish most of the journals, but not most of the articles.

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	28	24.6%	
Grew 10-49%	13	11.4%	36.0%
Even, $\pm 9.99\%$	20	17.5%	53.5%
Shrank 10-49%	30	26.3%	79.8%
Shrank 50%+	19	16.7%	96.5%

More shrinkage than growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	39	40%	59
Journals/Pay	6	38%	10
Articles/Free	717	34%	1,378
Articles/Pay	229	21%	866

Moderately high delisting percentages.

**Subjects**

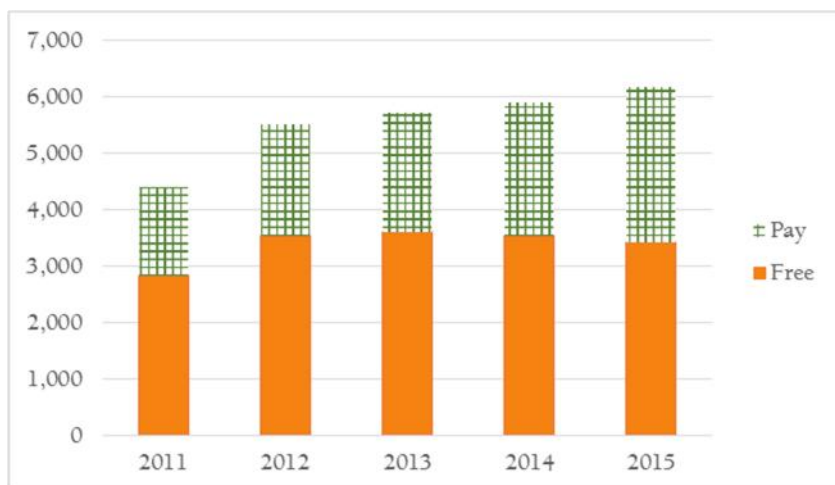
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	14	71%	711	38%
Language & Literature	8	75%	484	55%
Education	18	89%	420	92%
Agriculture	4	50%	302	32%
Computer Science	7	71%	245	95%
Media & Communications	12	100%	198	100%
Sociology	9	100%	175	100%
Biology	2	50%	145	10%
Economics	9	89%	131	81%
History	8	100%	104	100%
Political Science	5	100%	50	100%
Philosophy	1	100%	44	100%
Technology	1	100%	31	100%
Anthropology	2	50%	29	0%
Earth Sciences	2	100%	23	100%
Religion	1	100%	18	100%
Miscellany	1	100%	16	100%
Psychology	2	100%	16	100%
Arts & Architecture	1	100%	11	100%
Ecology	1	100%	11	100%
Law	2	100%	7	100%
Library Science	1	100%	7	100%
Engineering	1	100%	6	100%
Mathematics	1	100%	6	100%
Other Sciences	1	0%	0	

# Canada

Canada has 199 OAWorld open access journals. The 2015 average cost per article in APC-charging journals was \$911; overall average \$407.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	177	186	191	186	165
%Free	76%	77%	79%	80%	81%
Articles	6,175	5,898	5,714	5,524	4,402
%Free	55%	60%	63%	64%	65%



Free journals peaked in 2013; pay journals still growing.

**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	7	14%	1,835	21%
Med.: 60-149	14	57%	1,305	56%
Small: 20-59	61	70%	1,992	70%
Smallest: 0-19	117	89%	1,043	87%

No very large journals; standard size/APC pattern.

**APC Levels and Revenues**

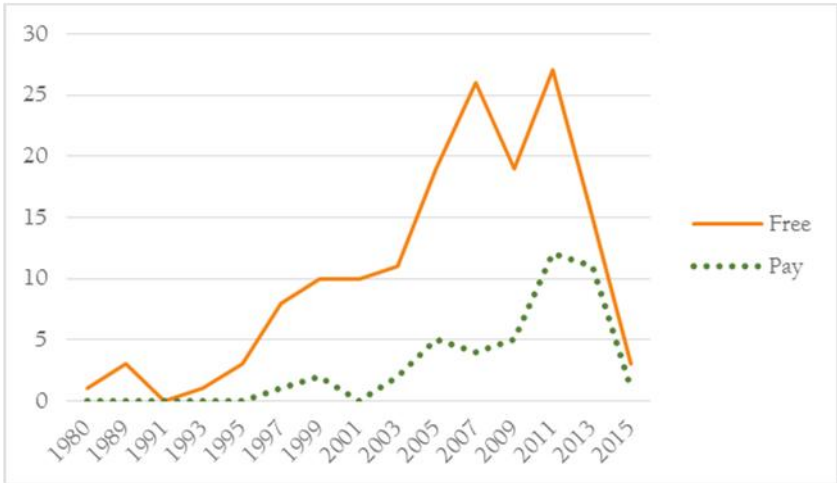
	Journals	Articles	Revenue	\$/article
\$1,400+	8	646	\$1,386,990	\$2,147
\$600-\$1.399	7	518	\$477,624	\$922
\$200-\$599	24	1,507	\$641,774	\$426
\$2-\$199	4	85	\$5,370	\$63
Free	156	3,419		
Total	199	6,175	\$2,511,758	\$407

Several very expensive journals: note the top-row average.

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	95	91%	2,767	72%
Open Access	25	24%	1,493	16%
Miscellaneous	52	83%	1,257	56%
Society/govt	26	81%	640	74%
Traditional	1	0%	18	0%

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	42	21.1%	
Grew 10-49%	31	15.6%	36.7%
Even, $\pm 9.99\%$	34	17.1%	53.8%
Shrank 10-49%	53	26.6%	80.4%
Shrank 50%+	26	13.1%	93.5%

More fast growth than fast shrinkage, more shrinkage than growth.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	62	40%	94
Journals/Pay	9	21%	34
Articles/Free	1,230	36%	2,189
Articles/Pay	792	29%	1,964

High rate of free-journal delisting, low rate for fee.

**Subjects**

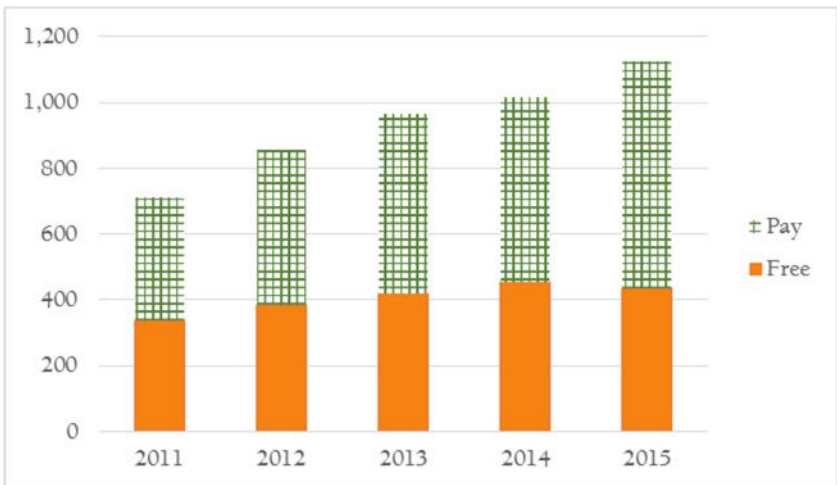
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	43	47%	2,191	32%
Sociology	19	89%	773	50%
Language & Literature	18	89%	664	50%
Education	28	100%	440	100%
Ecology	7	57%	318	27%
Economics	11	82%	246	87%
Mathematics	6	100%	236	100%
Computer Science	4	50%	204	79%
Media & Communications	4	100%	170	100%
Political Science	7	86%	117	74%
Library Science	3	100%	114	100%
Other Sciences	4	75%	82	29%
Philosophy	7	100%	81	100%
Earth Sciences	2	50%	67	9%
Anthropology	5	100%	59	100%
History	6	100%	59	100%
Biology	2	100%	55	100%
Miscellany	3	67%	54	17%
Agriculture	3	100%	51	100%
Engineering	2	100%	43	100%
Law	2	100%	36	100%
Religion	3	100%	29	100%
Psychology	3	0%	28	0%
Chemistry	1	100%	21	100%
Zoology	2	0%	20	0%
Physics	1	100%	11	100%
Arts & Architecture	3	100%	6	100%

# New Zealand

New Zealand has 79 OAWorld open access journals. For 2015, average cost per article for APC-charging journals: \$1,880. Overall: \$1,156.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	72	77	73	71	66
%Free	24%	27%	26%	28%	29%
Articles	1,126	1,016	965	856	711
%Free	39%	45%	44%	45%	47%



Free journals down slightly from 2014, pay still growing.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	4	50%	394	62%
Small: 20-59	11	27%	323	28%
Smallest: 0-19	64	27%	409	24%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	55	674	\$1,286,308	\$1,908
\$600-\$1,399	1	11	\$12,122	\$1,102
\$200-\$599	1	7	\$2,800	\$400
Free	22	434		
Total	79	1,126	\$1,301,230	\$1,156

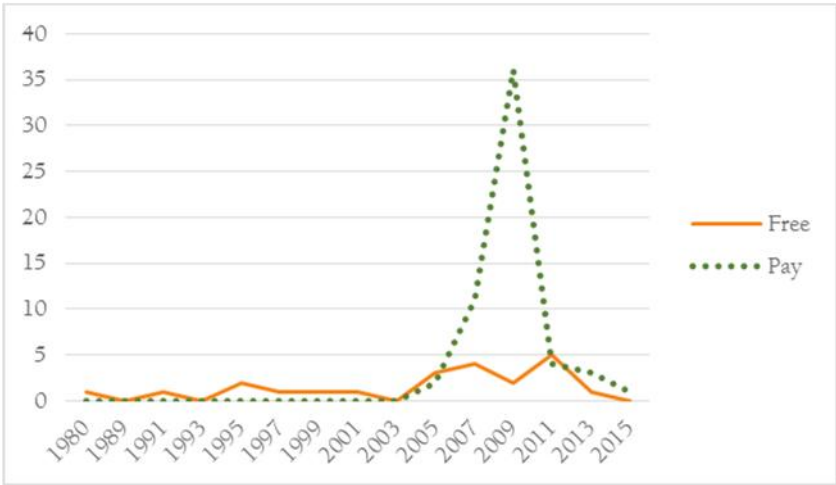
Dozens of expensive journals. mostly small. mostly biomed...

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	55	0%	646	0%
Univ/college	10	90%	192	96%
Miscellaneous	8	100%	181	100%
Society/govt	5	100%	68	100%
Traditional	1	0%	39	0%

...and almost all from one OA publisher.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	24	30.4%	
Grew 10-49%	10	12.7%	43.0%
Even, ±9.99%	4	5.1%	48.1%
Shrank 10-49%	19	24.1%	72.2%
Shrank 50%+	20	25.3%	97.5%

Slightly more shrinkage—and very few steady-state.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	8	36%	14
Journals/Pay	3	5%	54
Articles/Free	146	34%	288
Articles/Pay	47	7%	645

Very low pay delisting, somewhat high free.

**Subjects**

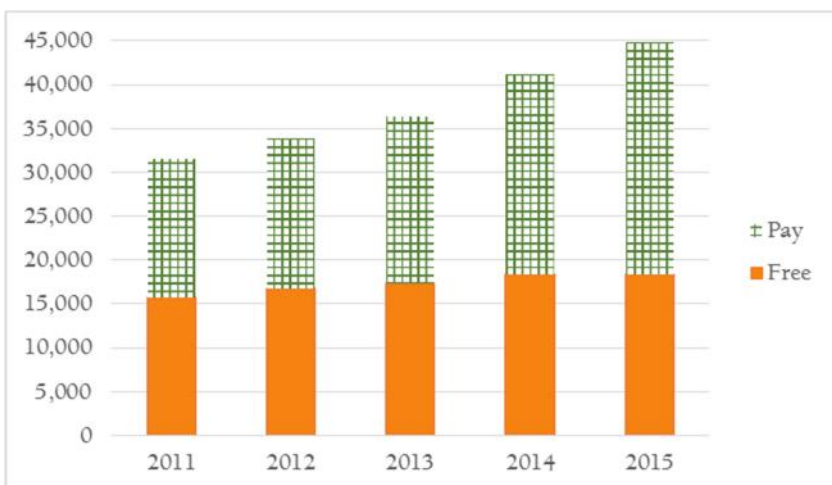
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	42	5%	559	7%
Biology	11	9%	144	13%
Computer Science	3	67%	126	99%
Technology	1	100%	123	100%
Education	3	100%	36	100%
Psychology	1	100%	26	100%
Sociology	2	100%	24	100%
Chemistry	2	0%	16	0%
Arts & Architecture	1	100%	14	100%
Mathematics	2	100%	12	100%
Agriculture	2	50%	11	27%
Religion	2	100%	10	100%
Ecology	1	0%	9	0%
Library Science	1	0%	7	0%
Zoology	1	0%	7	0%
Economics	1	100%	2	100%
Language & Literature	1	100%	0	
Law	1	100%	0	
Miscellany	1	100%	0	

# United States

The US has 952 OAWorld open access journals. Average cost per 2015 article in APC-charging journals was \$1,350; overall average was \$797.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	851	906	892	835	762
%Free	66%	65%	65%	66%	68%
Articles	44,881	41,141	36,413	33,921	31,558
%Free	41%	45%	48%	49%	50%



Free journals keep growing, but pay ones grow faster.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	7	0%	11,938	0%
Large: 150-599	46	43%	13,441	39%
Med.: 60-149	84	57%	7,599	59%
Small: 20-59	233	73%	7,675	72%
Smallest: 0-19	582	66%	4,228	74%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	34	9,813	\$22,191,474	\$2,261
\$600-\$1.399	118	10,024	\$11,578,030	\$1,155
\$200-\$599	142	4,412	\$1,798,472	\$408
\$2-\$199	37	2,255	\$200,940	\$89
Free	621	18,377		
Total	952	44,881	\$35,768,916	\$797

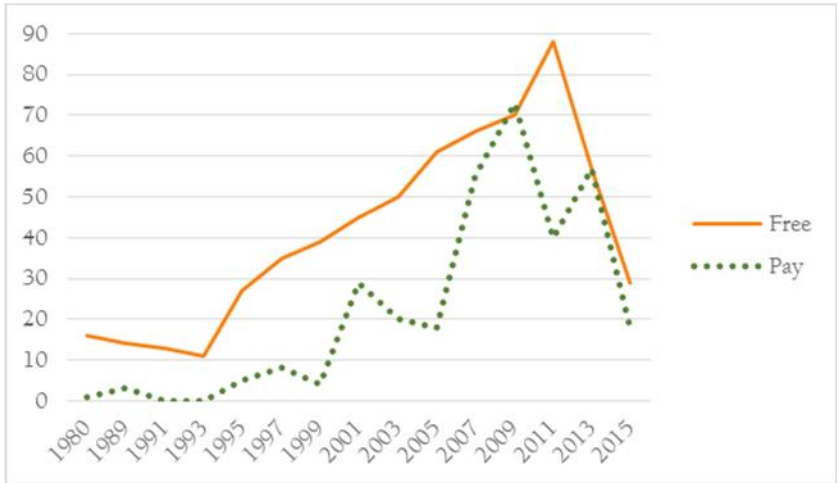
Most fee journals are on the expensive side.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Society/govt	135	76%	12,703	38%
Miscellaneous	248	77%	12,462	49%
Open Access	140	14%	8,555	10%
Univ/college	321	95%	7,759	84%
Traditional	108	3%	3,402	4%

University publishing plays a relatively small (and mostly free) role.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	186	19.5%	
Grew 10-49%	163	17.1%	36.7%
Even, ±9.99%	159	16.7%	53.4%
Shrank 10-49%	202	21.2%	74.6%
Shrank 50%+	196	20.6%	95.2%

More journals shrinking than growing.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	257	41%	364
Journals/Pay	135	41%	196
Articles/Free	7,239	39%	11,138
Articles/Pay	8,464	32%	18,040

Surprisingly high delisting rates for both free and pay journals.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	220	35%	16,063	32%
Physics	22	36%	5,503	12%
Biology	32	41%	2,053	25%
Computer Science	28	50%	1,942	22%
Engineering	25	28%	1,717	5%
Other Sciences	13	46%	1,653	8%
History	34	97%	1,642	100%
Education	89	87%	1,637	81%
Mathematics	38	89%	1,636	98%
Sociology	49	90%	1,401	64%
Language & Literature	55	98%	1,140	76%
Economics	42	62%	945	73%
Ecology	29	55%	879	74%
Religion	28	96%	875	44%
Chemistry	8	25%	845	17%
Library Science	33	100%	799	100%
Arts & Architecture	29	93%	599	76%
Technology	16	56%	574	48%
Agriculture	25	36%	537	32%
Zoology	12	33%	414	14%
Political Science	18	89%	397	96%
Law	32	97%	335	100%
Media & Communications	13	85%	324	58%
Anthropology	12	83%	270	86%
Psychology	15	47%	257	43%
Earth Sciences	13	38%	188	32%
Philosophy	16	94%	184	81%
Miscellany	6	83%	72	90%

# Western Europe

Western Europe has 2,106 OAWorld open access journals. In 2015, average cost per article for APC-charging journals: \$1,083. Overall: \$293.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	1,935	1,990	1,914	1,832	1,658
%Free	84%	85%	85%	86%	87%
Articles	81,267	83,549	75,745	70,403	59,956
%Free	73%	76%	74%	77%	78%

## Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	15	67%	23,459	75%
Large: 150-599	46	52%	12,050	45%
Med.: 60-149	138	64%	11,622	64%
Small: 20-59	735	84%	23,496	82%
Smallest: 0-19	1,172	90%	10,640	90%

Unusual: largest journals mostly free.



**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	54	7,501	\$15,859,247	\$2,114
\$600-\$1.399	89	6,409	\$5,848,121	\$912
\$200-\$599	126	4,794	\$1,757,177	\$367
\$2-\$199	51	3,279	\$353,570	\$108
Free	1,786	59,284		
Total	2,106	81,267	\$23,818,115	\$293

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	618	86%	32,531	80%
Univ/college	912	96%	20,314	88%
Open Access	224	48%	11,355	43%
Society/govt	247	91%	9,123	75%
Traditional	105	42%	7,944	47%

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	360	17.1%	
Grew 10-49%	411	19.5%	36.6%
Even, ±9.99%	410	19.5%	56.1%
Shrank 10-49%	517	24.5%	80.6%
Shrank 50%+	292	13.9%	94.5%

More rapid growth than rapid shrinkage, but more shrinkage than growth overall.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	431	24%	1,355
Journals/Pay	48	15%	272
Articles/Free	12,700	21%	46,584
Articles/Pay	1,698	8%	20,285

Fairly low delisting rate for free journals, considerably lower for pay.

**Subjects**

Medicine largest—and here, most medical articles appear in free journals.

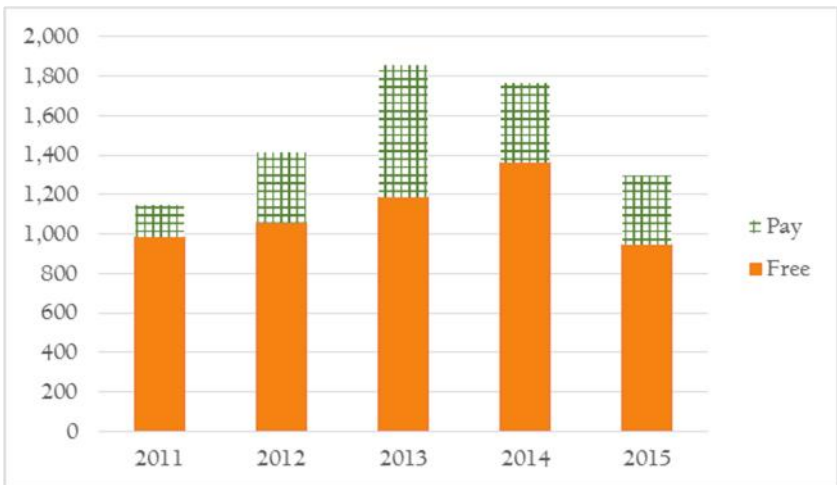
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	294	66%	14,978	57%
Physics	16	50%	8,375	86%
Engineering	24	54%	5,037	55%
Ecology	52	81%	4,826	59%
Other Sciences	30	67%	4,239	88%
Language & Literature	234	100%	4,081	100%
Earth Sciences	91	77%	3,903	50%
Education	152	95%	3,305	93%
Technology	32	72%	2,978	83%
Sociology	123	90%	2,818	93%
History	116	100%	2,531	100%
Agriculture	51	71%	2,397	59%
Biology	39	51%	2,375	46%
Anthropology	103	92%	1,944	96%
Arts & Architecture	110	95%	1,915	94%
Computer Science	52	71%	1,870	37%
Chemistry	13	54%	1,861	30%
Economics	84	76%	1,720	65%
Political Science	71	90%	1,585	89%
Media & Communications	75	95%	1,540	96%
Law	57	98%	1,063	99%
Psychology	52	85%	1,039	76%
Philosophy	62	95%	1,038	95%
Zoology	37	86%	929	75%
Library Science	40	95%	824	96%
Mathematics	35	77%	779	70%
Miscellany	31	90%	687	91%
Religion	30	93%	630	94%

# Austria

Austria has 50 OAWorld open access journals. The 2015 average cost per article in APC-charging journals was \$802; overall, \$217.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	46	46	41	39	39
%Free	89%	87%	88%	90%	90%
Articles	1,297	1,766	1,857	1,417	1,149
%Free	73%	77%	64%	75%	86%



Drop in 2015 in both free and pay journals.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	0%	195	0%
Med.: 60-149	4	50%	291	56%
Small: 20-59	19	95%	569	96%
Smallest: 0-19	26	92%	242	99%

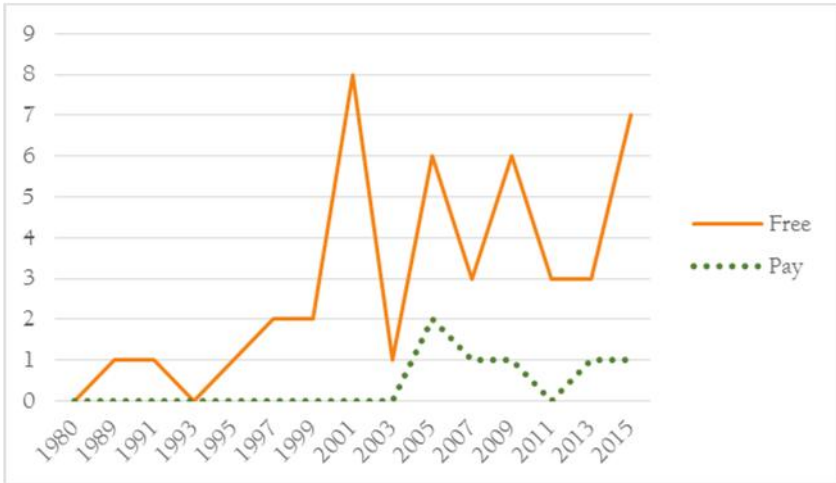
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	2	257	\$255,052	\$992
\$200-\$599	3	91	\$26,500	\$291
\$2-\$199	1	3	\$90	\$30
Free	44	946		
Total	50	1,297	\$281,642	\$217

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	23	87%	445	71%
Traditional	14	100%	346	100%
Univ/college	9	78%	213	87%
Open Access	1	0%	195	0%
Society/govt	3	100%	98	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	4	8.0%	
Grew 10-49%	7	14.0%	22.0%
Even, $\pm 9.99\%$	10	20.0%	42.0%
Shrank 10-49%	14	28.0%	70.0%
Shrank 50%+	11	22.0%	92.0%

More than twice as much shrinkage as growth.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	10	23%	34
Journals/Pay	1	17%	5
Articles/Free	180	19%	766
Articles/Pay	0	0%	351

Moderately low delisting among free journals, very low for pay.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	16	94%	428	85%
Computer Science	3	67%	323	40%
Education	3	67%	99	75%
Political Science	5	100%	66	100%
Biology	1	0%	62	0%
Mathematics	2	100%	60	100%
Law	2	100%	41	100%
Media & Communications	1	100%	40	100%
Philosophy	3	100%	34	100%
Religion	1	100%	33	100%
History	2	100%	29	100%
Agriculture	2	100%	25	100%
Psychology	2	100%	25	100%
Earth Sciences	1	100%	13	100%
Miscellany	1	100%	12	100%
Arts & Architecture	1	100%	4	100%
Anthropology	1	0%	3	0%
Language & Literature	1	100%	0	
Other Sciences	1	0%	0	
Sociology	1	100%	0	

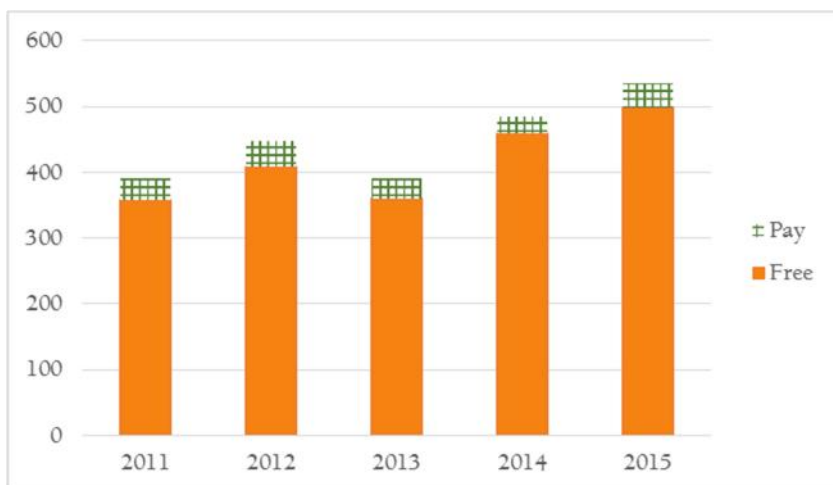
Medicine predominantly free, biology never free.

# Belgium

Belgium has 30 OAWorld open access journals. For 2015, the single APC-charging journal was \$216 per article; overall average cost \$15.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	29	29	26	23	23
%Free	97%	97%	96%	96%	96%
Articles	535	485	391	447	391
%Free	93%	95%	92%	91%	92%



Pay articles peaked in 2012; free journals growing since 2013.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	10	90%	295	88%
Smallest: 0-19	20	100%	240	100%

All small and smaller (none over 40 articles in 2015).

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	36	\$7,776	\$216
Free	29	499	\$0	
Total	30	535	\$7,776	\$15

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	14	100%	221	100%
Miscellaneous	8	88%	179	80%
Society/govt	8	100%	135	100%

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	11	36.7%	
Grew 10-49%	8	26.7%	63.3%
Even, $\pm 9.99\%$	3	10.0%	73.3%
Shrank 10-49%	4	13.3%	86.7%
Shrank 50%+	3	10.0%	96.7%

Very high growth rate, very little shrinkage.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	5	17%	24
Journals/Pay	0	0%	1
Articles/Free	88	18%	411
Articles/Pay	0	0%	36

Low delisting among free journals, and the single pay journal stays.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Language & Literature	8	100%	175	100%
Technology	5	100%	87	100%
Agriculture	2	50%	75	52%
Education	2	100%	43	100%
Earth Sciences	2	100%	30	100%
Arts & Architecture	2	100%	27	100%
Computer Science	2	100%	25	100%
Medicine	1	100%	24	100%
Economics	1	100%	16	100%
Sociology	1	100%	16	100%
Philosophy	2	100%	10	100%
Political Science	2	100%	7	100%

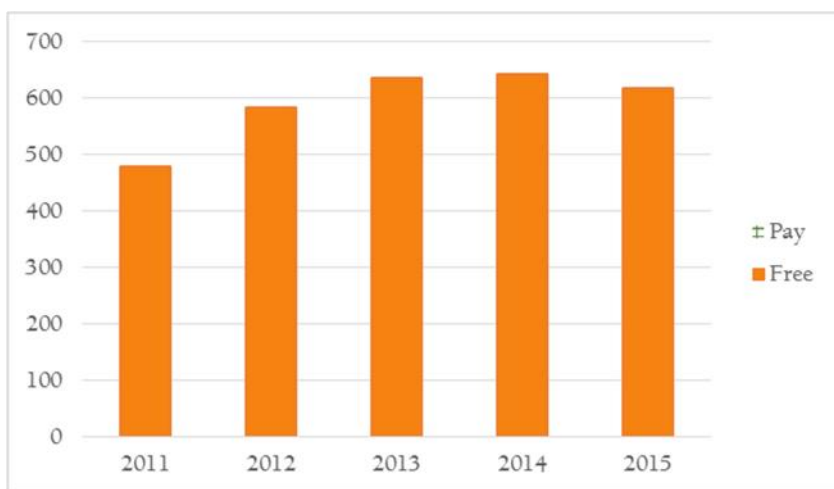
Truly distinctive: language & literature largest, one out of three articles.

# Denmark

Denmark has 38 OAWorld open access journals, none of which have article processing charges (APCs).

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	35	33	34	31	27
Articles	619	642	636	583	479



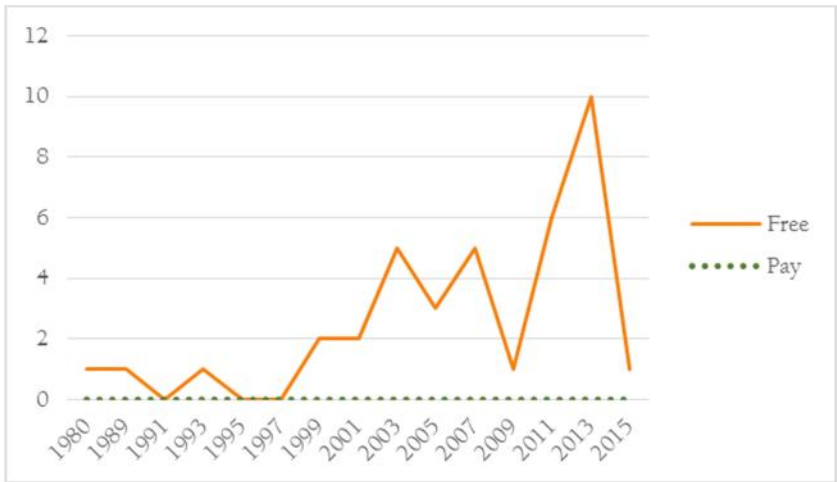
**Article Volume**

	Journals	Articles
Med.: 60-149	1	135
Small: 20-59	10	269
Smallest: 0-19	27	215

**Publisher Category**

Category	Journals	Articles
Univ/college	20	250
Miscellaneous	12	194
Society/govt	5	175
Open Access	1	

**Starting Date**



**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	5.3%	
Grew 10-49%	6	15.8%	21.1%
Even, $\pm 9.99\%$	10	26.3%	47.4%
Shrank 10-49%	12	31.6%	78.9%
Shrank 50%+	3	7.9%	86.8%

Much more shrinkage than growth.

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	16	42%	22
Articles/Free	326	53%	293

High delisting rate.

**Subjects**

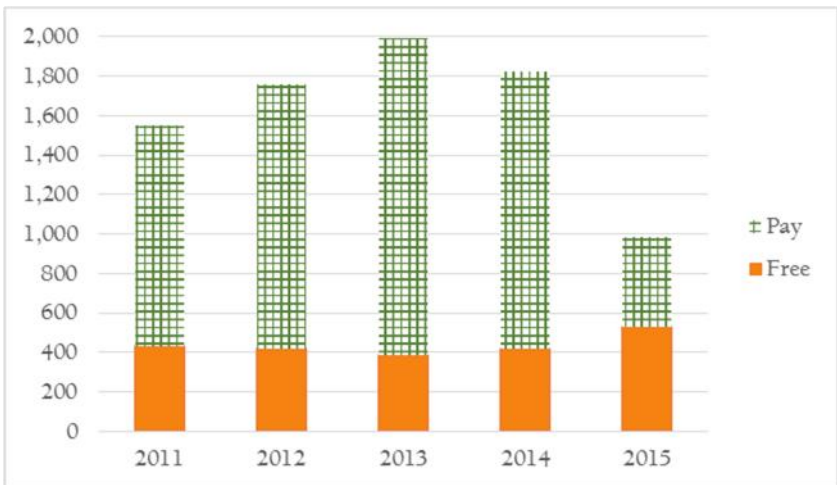
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Medicine	2	135
Media & Communications	4	84
Sociology	5	69
Earth Sciences	3	39
Anthropology	2	37
Ecology	2	36
Philosophy	3	36
Education	2	34
Economics	3	29
History	1	27
Language & Literature	4	23
Library Science	1	22
Political Science	1	17
Miscellany	1	10
Arts & Architecture	2	8
Psychology	1	8
Computer Science	1	5

# Finland

Finland has 37 OAWorld open access journals. Average 2015 cost per article in APC-charging journals was \$396; overall average was \$183.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	36	36	36	36	35
%Free	69%	69%	69%	69%	71%
Articles	982	1,823	1,994	1,762	1,550
%Free	54%	23%	20%	24%	28%



The drop in pay articles is *entirely* one six-journal publisher.



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	1	0%	121	0%
Small: 20-59	17	59%	680	54%
Smallest: 0-19	19	84%	181	91%

There were large (fee) journals prior to 2015, now medium or small.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	1	43	\$33,497	\$779
\$200-\$599	10	410	\$145,821	\$356
Free	26	529		
Total	37	982	\$179,318	\$183

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	7	0%	314	0%
Univ/college	9	67%	259	49%
Society/govt	10	90%	190	97%
Miscellaneous	10	100%	180	100%
Traditional	1	100%	39	100%

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	11	29.7%	
Grew 10-49%	7	18.9%	48.6%
Even, $\pm 9.99\%$	7	18.9%	67.6%
Shrank 10-49%	5	13.5%	81.1%
Shrank 50%+	6	16.2%	97.3%

Mostly growth; all five fast shrinkage are same OA publisher.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	8	31%	18
Journals/Pay	4	36%	7
Articles/Free	159	30%	370
Articles/Pay	220	49%	233

Somewhat high pay-journal delisting rate.

**Subjects**

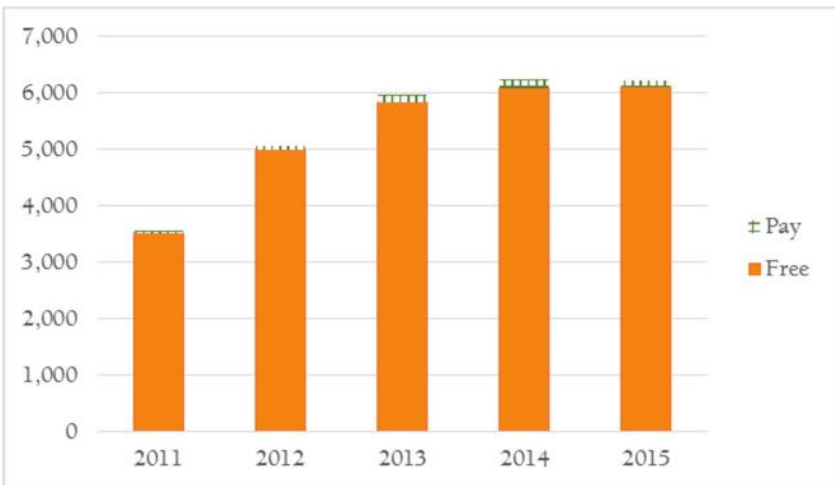
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Computer Science	6	33%	285	7%
Agriculture	3	100%	106	100%
Biology	2	0%	90	0%
Sociology	5	100%	89	100%
Earth Sciences	3	33%	65	25%
History	3	100%	63	100%
Mathematics	1	100%	58	100%
Economics	3	100%	55	100%
Ecology	1	100%	50	100%
Medicine	1	0%	39	0%
Language & Literature	3	100%	37	100%
Religion	1	100%	16	100%
Anthropology	2	100%	12	100%
Law	1	100%	7	100%
Other Sciences	1	0%	7	0%
Media & Communications	1	0%	3	0%

# France

France has 175 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$627; overall average, \$11.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	153	159	158	165	151
%Free	97%	97%	97%	98%	98%
Articles	6,229	6,247	5,977	5,057	3,550
%Free	98%	98%	98%	99%	99%



Pay articles down slightly in 2015, free up less than 1%.

**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	2	100%	2,342	100%
Large: 150-599	2	100%	371	100%
Med.: 60-149	9	100%	654	100%
Small: 20-59	59	97%	1,893	96%
Smallest: 0-19	103	97%	969	96%

Unusual: the few pay journals are all small or very small.

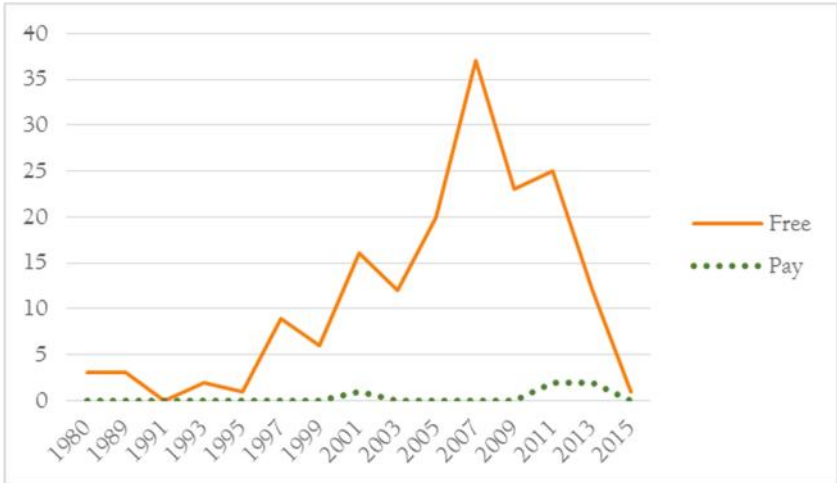
**APC Levels and Revenues**

	Journals	Articles	Revenue	\$/article
\$600-\$1.399	1	37	\$36,334	\$982
\$200-\$599	3	66	\$33,936	\$514
\$2-\$199	1	11	\$1,188	\$108
Free	170	6,115		
Total	175	6,229	\$71,458	\$11

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Traditional	14	79%	2,926	97%
Miscellaneous	66	98%	1,424	99%
Univ/college	53	100%	1,133	100%
Society/govt	33	97%	720	98%
Open Access	9	100%	26	100%

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	38	21.7%	
Grew 10-49%	30	17.1%	38.9%
Even, $\pm 9.99\%$	18	10.3%	49.1%
Shrank 10-49%	46	26.3%	75.4%
Shrank 50%+	27	15.4%	90.9%

Mostly dynamic, with few steady-state journals.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	36	21%	134
Journals/Pay	0	0%	5
Articles/Free	694	11%	5,421
Articles/Pay	0	0%	114

Fairly low free delisting, even lower articles, no pay delisting.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Physics	4	100%	1,442	100%
Technology	3	100%	1,049	100%
Language & Literature	38	100%	554	100%
Sociology	18	100%	447	100%
Anthropology	16	100%	436	100%
Other Sciences	2	100%	215	100%
History	12	100%	211	100%
Earth Sciences	8	75%	167	66%
Ecology	7	86%	153	94%
Medicine	3	67%	141	74%
Chemistry	2	100%	134	100%
Agriculture	4	100%	115	100%
Mathematics	5	100%	111	100%
Political Science	6	100%	108	100%
Zoology	4	100%	105	100%
Biology	2	100%	102	100%
Economics	6	83%	102	89%
Education	6	100%	96	100%
Religion	3	100%	94	100%
Miscellany	3	100%	85	100%
Library Science	3	100%	74	100%
Law	4	100%	69	100%
Computer Science	4	100%	63	100%
Arts & Architecture	4	100%	52	100%
Engineering	1	100%	39	100%
Media & Communications	3	100%	30	100%
Philosophy	3	100%	21	100%
Psychology	1	100%	14	100%

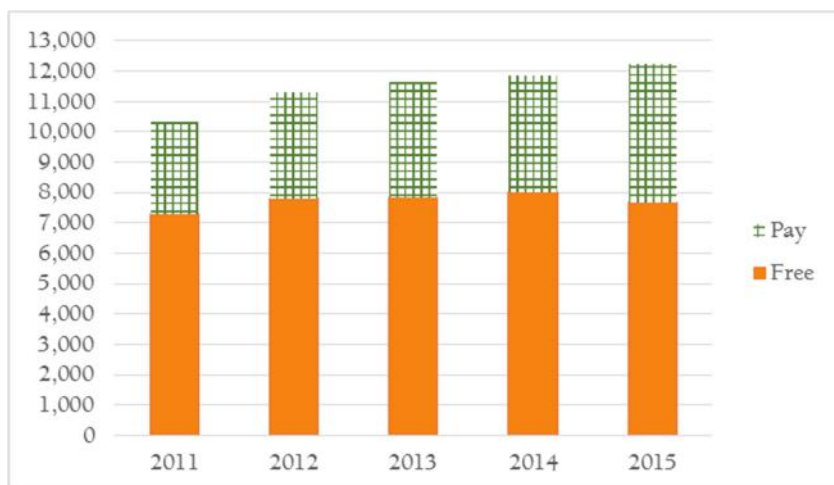
Varied strong subjects, little biomed.

# Germany

Germany has 246 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$677; overall average, \$252.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	227	230	222	216	195
%Free	83%	83%	84%	86%	86%
Articles	12,218	11,854	11,652	11,293	10,348
%Free	63%	68%	67%	69%	70%





**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	3	67%	2,265	64%
Large: 150-599	19	63%	4,940	53%
Med.: 60-149	18	56%	1,683	50%
Small: 20-59	68	81%	2,172	78%
Smallest: 0-19	138	92%	1,158	92%

**APC Levels and Revenues**

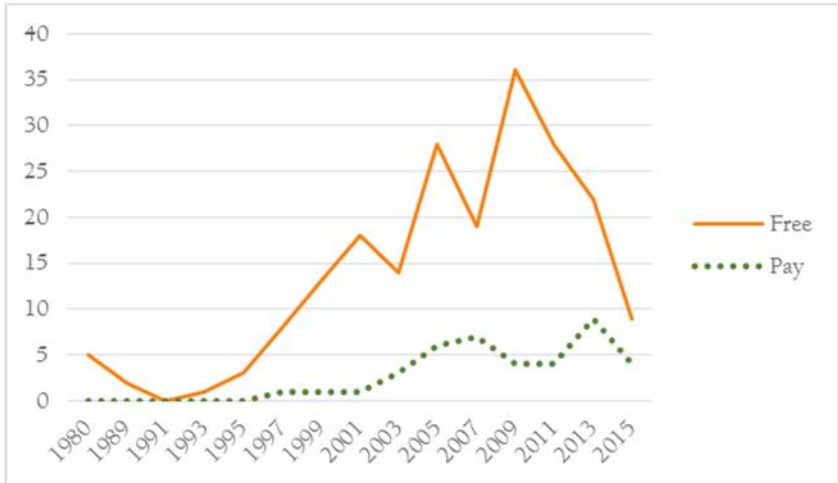
	Journals	Articles	Revenue	\$/article
\$1,400+	3	211	\$382,329	\$1,812
\$600-\$1.399	11	2,982	\$2,414,572	\$810
\$200-\$599	17	697	\$260,505	\$374
\$2-\$199	9	653	\$19,891	\$30
Free	206	7,675		
Total	246	12,218	\$3,077,297	\$252

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Open Access	55	60%	6,783	50%
Univ/college	84	92%	2,579	69%
Miscellaneous	87	93%	2,444	95%
Traditional	11	82%	236	33%
Society/govt	9	67%	176	51%

Multijournal OA dominates, with one 45-journal publisher.

### Starting Date



### Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	45	18.3%	
Grew 10-49%	46	18.7%	37.0%
Even, $\pm 9.99\%$	56	22.8%	59.8%
Shrank 10-49%	51	20.7%	80.5%
Shrank 50%+	32	13.0%	93.5%

Slightly more growth than shrinkage.

### Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	68	33%	138
Journals/Pay	1	3%	39
Articles/Free	1,450	19%	6,225
Articles/Pay	0	0%	4,543

Slightly high free-journal delisting rate, low article rate, very low pay journal delisting rate, and that one hasn't had articles since 2013.

**Subjects**

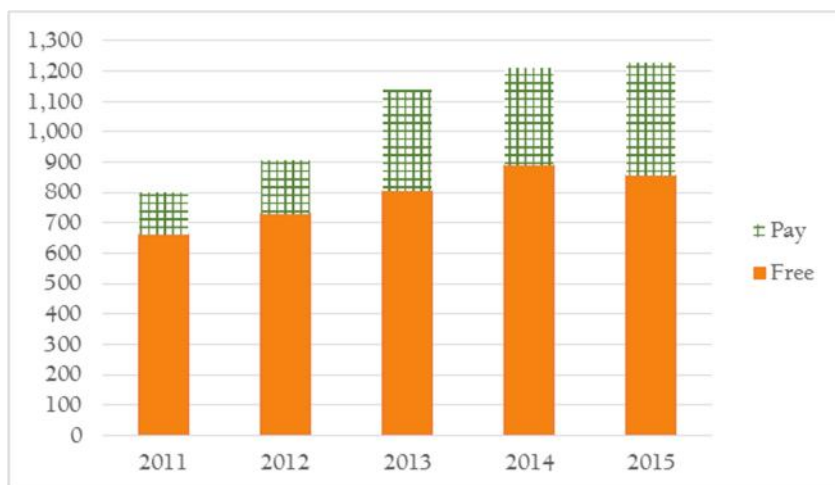
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Ecology	16	69%	3,337	56%
Earth Sciences	31	58%	2,436	27%
Technology	9	78%	1,295	91%
Medicine	16	88%	751	79%
Computer Science	7	43%	658	5%
Education	14	86%	381	76%
Chemistry	3	100%	373	100%
History	16	100%	359	100%
Economics	10	100%	280	100%
Language & Literature	17	100%	268	100%
Engineering	8	63%	249	35%
Arts & Architecture	8	100%	232	100%
Psychology	10	90%	200	97%
Sociology	10	90%	199	100%
Political Science	9	100%	175	100%
Biology	6	83%	173	92%
Religion	7	100%	124	100%
Agriculture	6	50%	120	46%
Mathematics	6	50%	114	47%
Library Science	6	100%	107	100%
Zoology	3	100%	91	100%
Law	5	100%	77	100%
Philosophy	5	100%	66	100%
Media & Communications	5	100%	62	100%
Other Sciences	5	100%	35	100%
Miscellany	3	100%	31	100%
Anthropology	4	100%	22	100%
Physics	1	100%	3	100%

# Greece

Greece has 40 OAWorld open access journals. Average 2015 cost per article in APC-charging journals was \$325; overall average, \$99.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	35	39	38	39	36
%Free	74%	77%	76%	77%	81%
Articles	1,230	1,213	1,137	908	800
%Free	70%	73%	71%	80%	83%



Slight drop in free articles in 2015, slight increase in pay.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	0%	214	0%
Med.: 60-149	7	86%	606	90%
Small: 20-59	9	67%	222	70%
Smallest: 0-19	23	83%	188	82%

**APC Levels and Revenues**

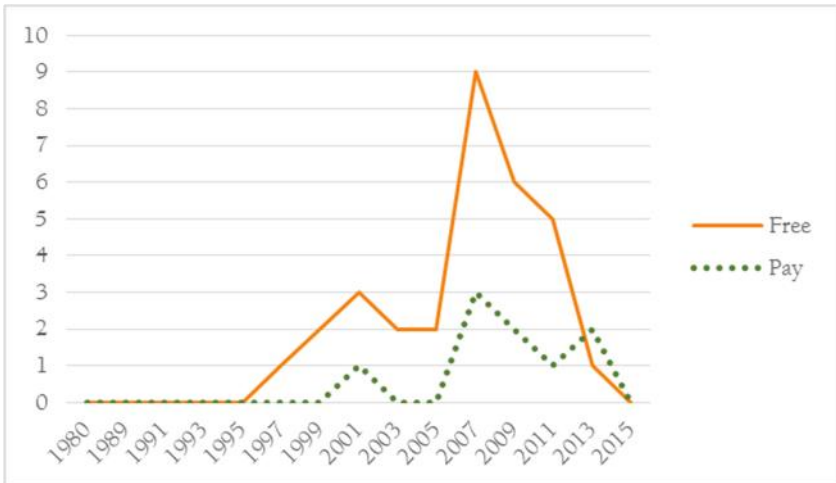
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	8	\$6,328	\$791
\$200-\$599	3	289	\$108,082	\$374
\$2-\$199	5	78	\$7,515	\$96
Free	31	855		
Total	40	1,230	\$121,925	\$99

Nearly all the fee activity is in fairly low-priced journals.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	17	71%	622	58%
Univ/college	12	75%	308	82%
Society/govt	11	91%	300	80%

## Starting Date



## Growth and Shrinkage

Change 2014-15	Count	Percent	Cum%
Grew 50%+	2	5.0%	
Grew 10-49%	12	30.0%	35.0%
Even, $\pm 9.99\%$	9	22.5%	57.5%
Shrank 10-49%	9	22.5%	80.0%
Shrank 50%+	7	17.5%	97.5%

More shrinkage than growth.

## Gray OA and DOAJ16

	GrayOA	%Gray	DOAJ16
Journals/Free	11	35%	20
Journals/Pay	4	44%	5
Articles/Free	331	39%	524
Articles/Pay	294	78%	81

Extremely high rate of pay article delisting from high journal rate.

**Subjects**

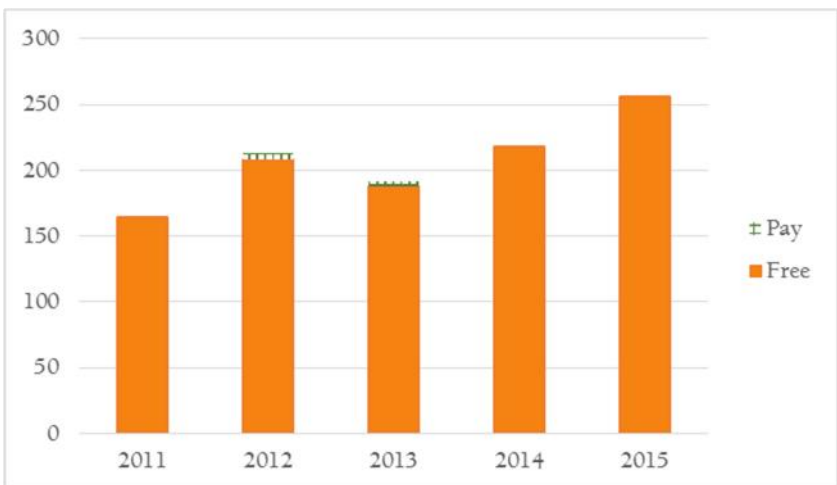
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	11	82%	599	54%
Engineering	2	50%	172	85%
Earth Sciences	3	100%	97	100%
Library Science	1	100%	84	100%
Economics	3	33%	51	20%
Other Sciences	2	50%	45	87%
History	3	100%	41	100%
Arts & Architecture	2	100%	28	100%
Anthropology	2	100%	25	100%
Sociology	1	100%	25	100%
Education	2	100%	20	100%
Language & Literature	2	100%	16	100%
Computer Science	1	0%	14	0%
Biology	1	0%	8	0%
Media & Communications	3	67%	5	0%
Miscellany	1	100%	0	

# Ireland

Ireland has 14 OAWorld open access journals. While there is one APC-charging journal (\$150), it published no articles in 2014 or 2015.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	13	12	14	12	9
%Free	100%	100%	93%	92%	100%
Articles	256	218	192	213	164
%Free	100%	100%	98%	98%	100%





**Article Volume**

	Journals	%Free	Articles	%Free
Med.: 60-149	1	100%	87	100%
Small: 20-59	1	100%	45	100%
Smallest: 0-19	12	92%	124	100%

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	10	100%	150	100%
Society/govt	2	100%	93	100%
Miscellaneous	2	50%	13	100%

**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	21.4%	
Grew 10-49%	3	21.4%	42.9%
Even, ±9.99%	4	28.6%	71.4%
Shrank 10-49%	2	14.3%	85.7%
Shrank 50%+	0	0.0%	85.7%

Much more growth than shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	3	23%	10
Journals/Pay	0	0%	1
Articles/Free	116	45%	140
Articles/Pay	0		0

Fairly low journal delisting percentage, but high article loss.

**Subjects**

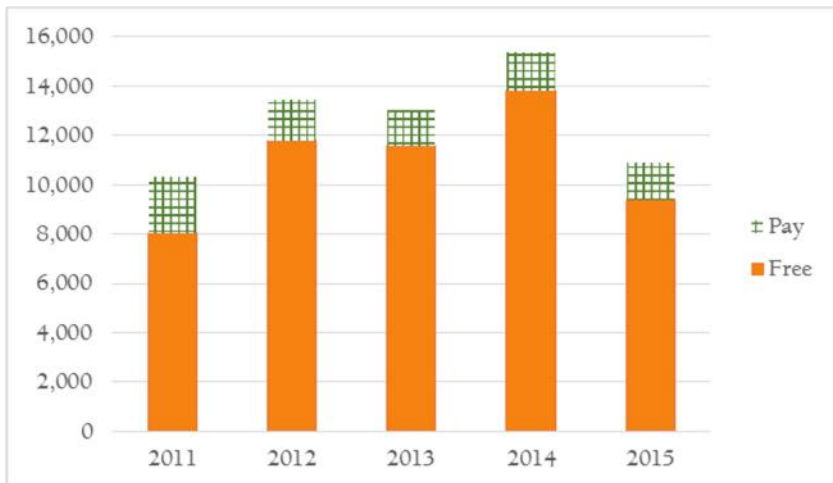
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	1	100%	87	100%
Political Science	1	100%	45	100%
Media & Communications	2	100%	32	100%
Education	2	100%	30	100%
Language & Literature	2	100%	17	100%
Religion	1	100%	14	100%
History	1	100%	13	100%
Philosophy	1	100%	7	100%
Arts & Architecture	1	100%	6	100%
Ecology	1	100%	5	100%
Sociology	1	0%	0	

# Italy

Italy has 303 OAWorld open access journals. The 2015 average cost per article in APC-charging journals was \$874; overall average \$122.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	274	290	282	270	244
%Free	86%	87%	87%	87%	86%
Articles	10,885	15,395	13,026	13,430	10,314
%Free	86%	90%	89%	88%	78%



The drop from 2014 to 2015 is mostly due to one conference-reports megajournal going from 7,074 to 2,981 articles.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	100%	2,981	100%
Large: 150-599	3	67%	986	58%
Med.: 60-149	22	77%	1,911	80%
Small: 20-59	109	85%	3,613	84%
Smallest: 0-19	168	90%	1,394	90%

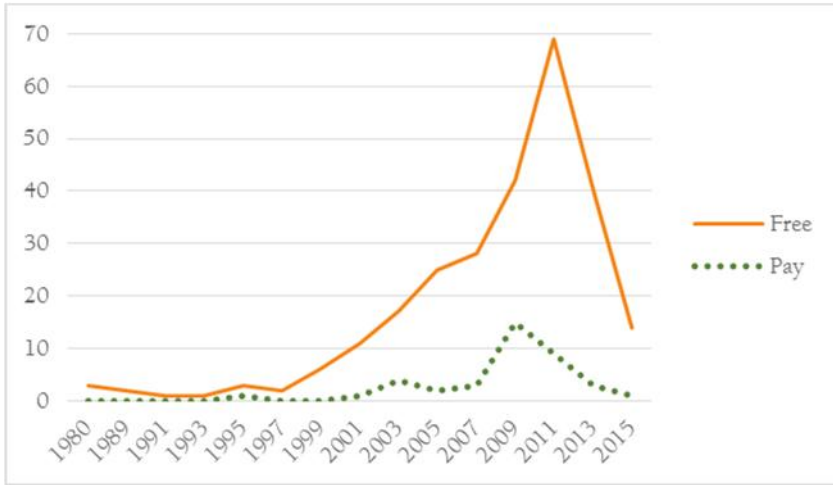
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	496	\$879,200	\$1,773
\$600-\$1.399	4	150	\$120,720	\$805
\$200-\$599	26	687	\$314,837	\$458
\$2-\$199	7	188	\$14,868	\$79
Free	264	9,364		
Total	303	10,885	\$1,329,625	\$122

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	98	92%	6,558	89%
Univ/college	125	98%	2,606	99%
Open Access	51	55%	939	35%
Society/govt	21	86%	598	89%
Traditional	8	63%	184	60%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	37	12.2%	
Grew 10-49%	57	18.8%	31.0%
Even, ±9.99%	43	14.2%	45.2%
Shrank 10-49%	92	30.4%	75.6%
Shrank 50%+	61	20.1%	95.7%

Much more shrinkage than growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	41	16%	223
Journals/Pay	5	13%	34
Articles/Free	3,748	40%	5,616
Articles/Pay	134	9%	1,387

Low journal delisting percentages; that megajournal accounts for article percentage (conf-reports journals not APCs; paid by conference).

**Subjects**

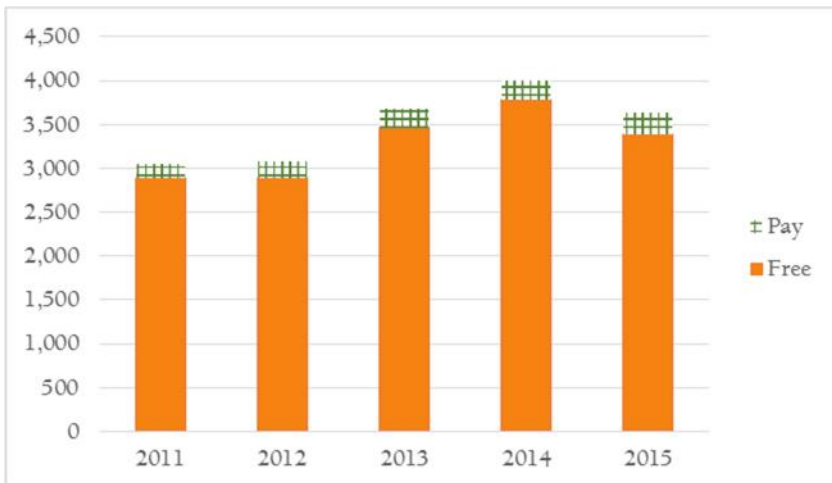
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Other Sciences	4	75%	3,021	100%
Medicine	71	66%	2,196	52%
Language & Literature	33	100%	791	100%
Agriculture	14	64%	785	82%
Arts & Architecture	26	100%	512	100%
Philosophy	17	94%	373	98%
Anthropology	18	94%	353	99%
Earth Sciences	9	78%	309	85%
Zoology	11	82%	293	67%
History	17	100%	276	100%
Education	12	100%	258	100%
Ecology	5	80%	244	64%
Law	6	100%	238	100%
Sociology	6	100%	150	100%
Media & Communications	7	100%	141	100%
Engineering	2	100%	134	100%
Political Science	7	100%	124	100%
Mathematics	7	100%	119	100%
Psychology	6	100%	113	100%
Religion	3	100%	103	100%
Economics	8	88%	94	85%
Library Science	2	100%	55	100%
Chemistry	1	0%	53	0%
Physics	1	100%	52	100%
Computer Science	3	100%	42	100%
Biology	5	100%	36	100%
Miscellany	1	100%	20	100%
Technology	1	100%	0	

# Netherlands

The Netherlands have 61 OAWorld open access journals. 2015 average cost per article in APC-charging journals: \$928. Overall average: \$63.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	54	57	57	56	52
%Free	83%	86%	86%	86%	87%
Articles	3,633	4,003	3,679	3,081	3,050
%Free	93%	95%	94%	94%	95%



One free journal published 503 fewer articles in 2015 than in 2014; apart from that journal, both pay and free journals grew overall.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	100%	2,316	100%
Med.: 60-149	5	100%	404	100%
Small: 20-59	21	71%	624	66%
Smallest: 0-19	33	91%	289	88%

Another case where pay journals are all small or very small.

**APC Levels and Revenues**

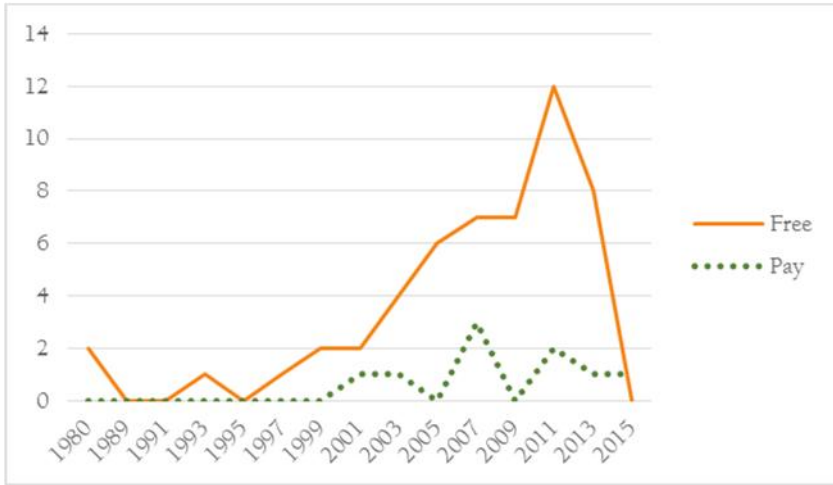
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	55	\$104,814	\$1,906
\$600-\$1.399	4	103	\$102,115	\$991
\$200-\$599	2	33	\$11,900	\$361
\$2-\$199	1	55	\$9,350	\$170
Free	52	3,387		
Total	61	3,633	\$228,179	\$63

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	16	94%	1,350	99%
Society/govt	2	100%	1,302	100%
Univ/college	36	89%	693	81%
Traditional	6	33%	272	62%
Open Access	1	100%	16	100%



**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	9	14.8%	
Grew 10-49%	15	24.6%	39.3%
Even, ±9.99%	10	16.4%	55.7%
Shrank 10-49%	12	19.7%	75.4%
Shrank 50%+	11	18.0%	93.4%

Nearly equal growth and shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	21	40%	31
Journals/Pay	2	22%	7
Articles/Free	1,534	45%	1,853
Articles/Pay	72	29%	174

Very high delisting rates for free journals.

**Subjects**

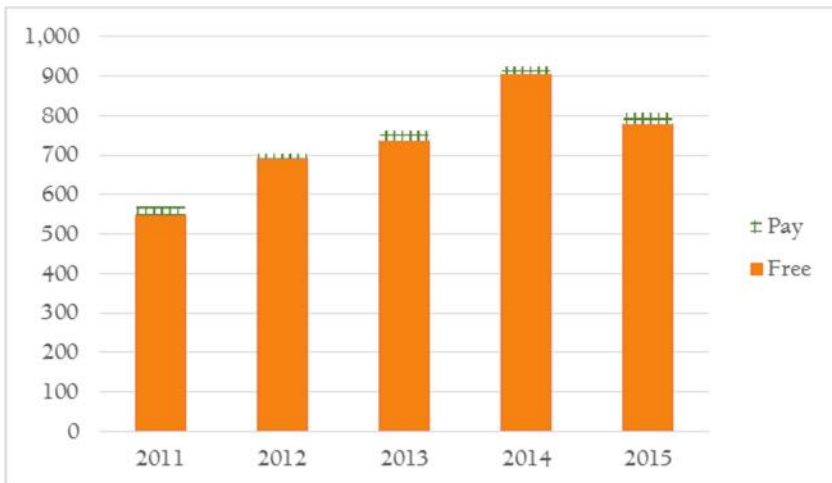
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	5	60%	2,428	97%
History	5	100%	269	100%
Miscellany	3	100%	174	100%
Language & Literature	10	100%	107	100%
Political Science	3	33%	95	31%
Sociology	3	100%	75	100%
Philosophy	4	75%	74	58%
Engineering	2	50%	62	58%
Agriculture	2	100%	51	100%
Media & Communications	2	100%	45	100%
Arts & Architecture	4	75%	43	67%
Library Science	2	100%	41	100%
Law	3	100%	35	100%
Technology	2	100%	30	100%
Economics	1	100%	25	100%
Biology	2	50%	23	57%
Religion	1	0%	23	0%
Zoology	2	100%	19	100%
Mathematics	1	100%	10	100%
Earth Sciences	1	100%	4	100%
Anthropology	1	100%	0	
Computer Science	1	100%	0	
Other Sciences	1	100%	0	

# Norway

Norway has 50 OAWorld open access journals. The 2015 average cost per article in APC-charging journals was \$1,372; overall average, \$46.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	48	49	43	39	35
%Free	94%	96%	95%	95%	94%
Articles	807	924	761	703	569
%Free	97%	98%	97%	98%	96%



Pay journals up, but free journals down.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	1	100%	98	100%
Small: 20-59	16	100%	419	100%
Smallest: 0-19	33	91%	290	91%

APC-charging journals are all very small.

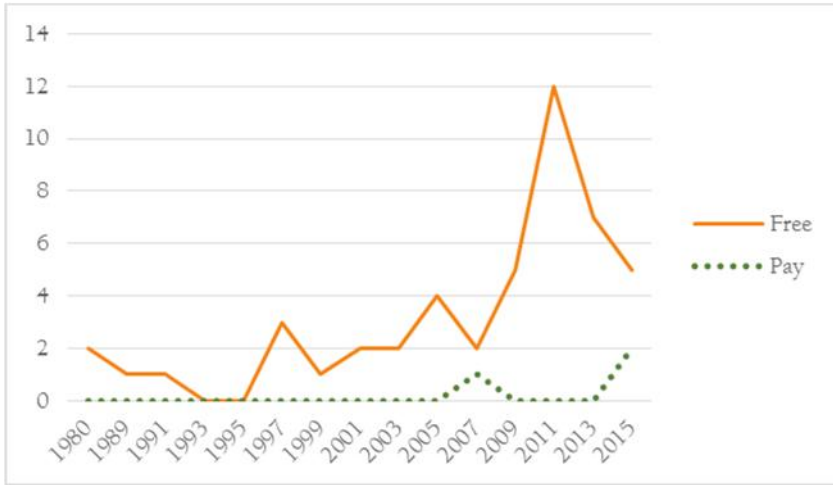
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	14	\$23,816	\$1,701
\$600-\$1,399	1	13	\$13,234	\$1,018
Free	47	780		
Total	50	807	\$37,050	\$46

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	29	100%	473	100%
Miscellaneous	17	82%	221	88%
Society/govt	3	100%	78	100%
Open Access	1	100%	35	100%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	9	18.0%	
Grew 10-49%	8	16.0%	34.0%
Even, ±9.99%	10	20.0%	54.0%
Shrank 10-49%	11	22.0%	76.0%
Shrank 50%+	11	22.0%	98.0%

More shrinkage than growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	5	11%	42
Journals/Pay	0	0%	3
Articles/Free	133	17%	647
Articles/Pay	0	0%	27

Very low rate of delisting for free journals and none for pay.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Education	10	90%	209	97%
Language & Literature	9	100%	154	100%
Medicine	6	100%	124	100%
Arts & Architecture	3	100%	71	100%
Law	5	80%	59	86%
Sociology	4	100%	45	100%
Zoology	3	100%	30	100%
Miscellany	1	100%	21	100%
Computer Science	1	100%	20	100%
Religion	2	100%	17	100%
Media & Communications	1	100%	16	100%
Philosophy	1	0%	13	0%
Other Sciences	1	100%	12	100%
Biology	1	100%	8	100%
Psychology	1	100%	7	100%
Library Science	1	100%	1	100%

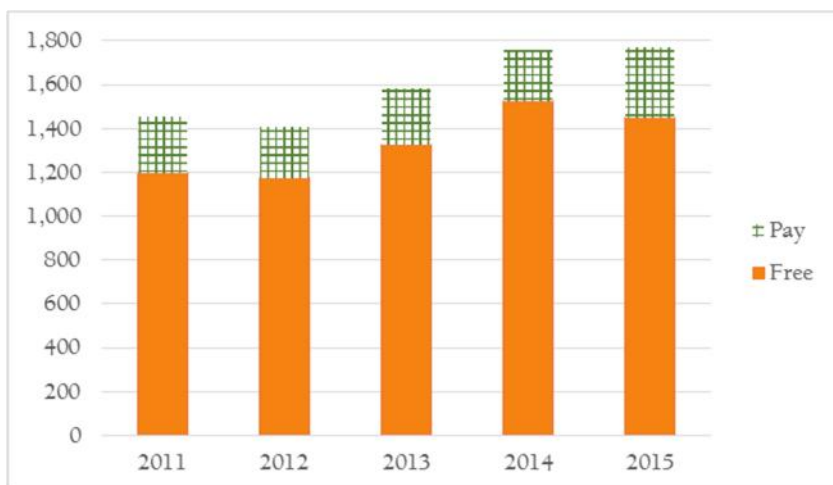
Five of the top seven subjects are humanities and social sciences.

# Portugal

Portugal has 80 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$485; overall average, \$88.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	72	75	74	68	66
%Free	89%	89%	89%	93%	92%
Articles	1,771	1,756	1,581	1,407	1,453
%Free	82%	87%	84%	83%	82%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	2	50%	169	57%
Small: 20-59	38	87%	1,255	82%
Smallest: 0-19	40	95%	347	93%

**APC Levels and Revenues**

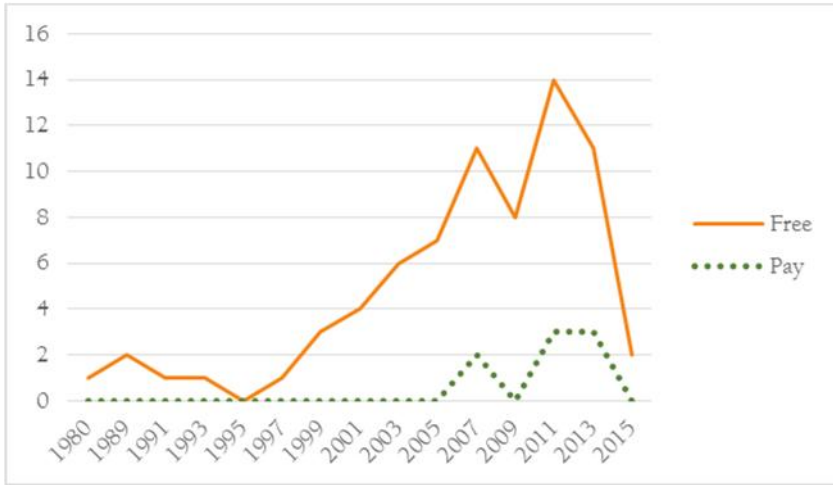
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	3	150	\$130,650	\$871
\$200-\$599	2	24	\$6,810	\$284
\$2-\$199	3	148	\$18,846	\$127
Free	72	1,449		
Total	80	1,771	\$156,306	\$88

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	49	98%	1,044	96%
Miscellaneous	18	89%	338	80%
Society/govt	10	80%	239	75%
Open Access	3	0%	150	0%



**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	12	15.0%	
Grew 10-49%	18	22.5%	37.5%
Even, ±9.99%	15	18.8%	56.3%
Shrank 10-49%	22	27.5%	83.8%
Shrank 50%+	8	10.0%	93.8%

Equal growth and shrinkage, but more fast growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	20	28%	52
Journals/Pay	1	13%	7
Articles/Free	238	16%	1,211
Articles/Pay	5	2%	317

Low article percentage delisted, very low pay delisting.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	10	90%	366	86%
Sociology	7	86%	220	67%
Arts & Architecture	10	90%	199	78%
Media & Communications	6	83%	182	82%
Language & Literature	10	100%	158	100%
History	5	100%	107	100%
Miscellany	3	100%	99	100%
Education	4	100%	72	100%
Political Science	2	50%	65	31%
Agriculture	2	50%	55	0%
Earth Sciences	4	100%	45	100%
Computer Science	3	67%	36	47%
Economics	1	100%	27	100%
Technology	1	100%	27	100%
Chemistry	1	100%	21	100%
Philosophy	2	100%	20	100%
Mathematics	1	100%	16	100%
Library Science	1	100%	14	100%
Biology	2	50%	12	58%
Psychology	1	100%	12	100%
Religion	1	100%	11	100%
Ecology	1	100%	7	100%
Anthropology	2	100%	0	

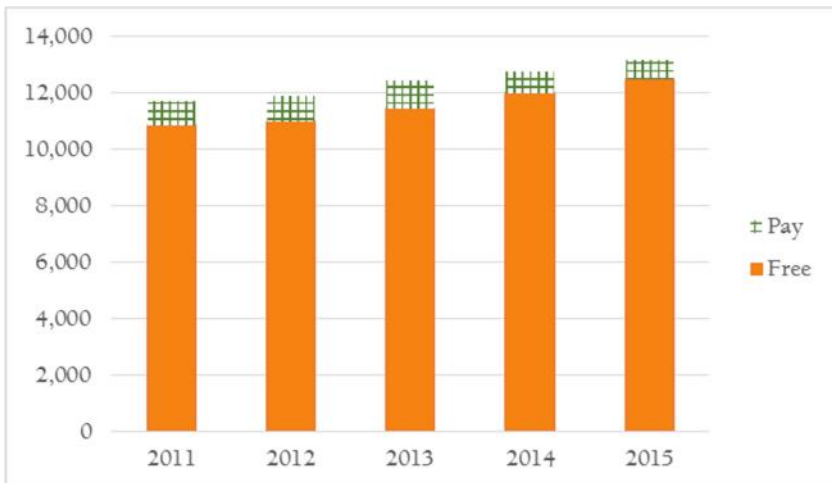
Eight of the top nine subjects are humanities & social sciences.

# Spain

Spain has 560 OAWorld open access journals. Average 2015 cost per article in APC-charging journals: \$187. Overall average: \$9.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	516	538	523	513	464
%Free	97%	97%	97%	97%	97%
Articles	13,158	12,752	12,448	11,885	11,714
%Free	95%	94%	92%	93%	93%



Pay journals peaked in 2013; free journals still growing.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	3	100%	715	100%
Med.: 60-149	27	85%	2,235	81%
Small: 20-59	233	97%	7,259	97%
Smallest: 0-19	297	99%	2,949	99%

No very large journals, and most pay journals are medium-sized.

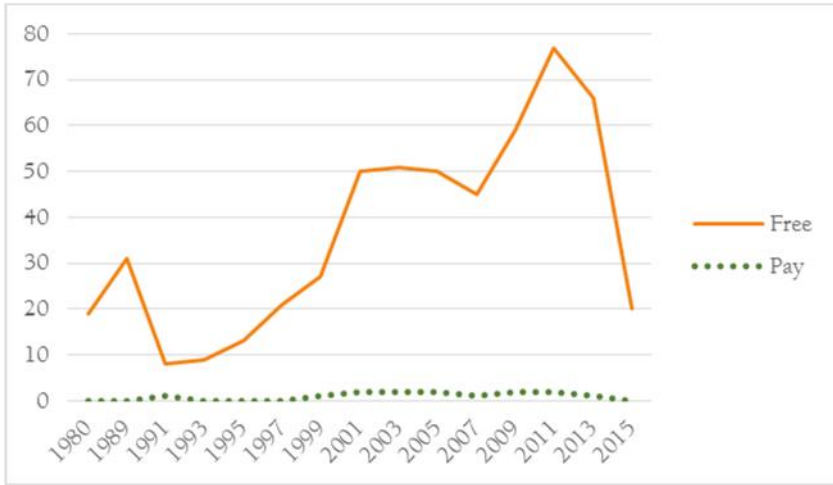
**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	14	\$12,628	\$902
\$200-\$599	7	337	\$86,805	\$258
\$2-\$199	6	305	\$22,922	\$75
Free	546	12,502		
Total	560	13,158	\$122,355	\$9

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	338	100%	7,216	98%
Miscellaneous	111	93%	3,058	88%
Society/govt	90	97%	2,156	97%
Open Access	21	90%	728	83%

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	92	16.4%	
Grew 10-49%	130	23.2%	39.6%
Even, ±9.99%	133	23.8%	63.4%
Shrank 10-49%	129	23.0%	86.4%
Shrank 50%+	54	9.6%	96.1%

More growth than shrinkage, especially rapid growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	106	19%	440
Journals/Pay	5	36%	9
Articles/Free	2,575	21%	9,927
Articles/Pay	216	33%	440

Delistings on the low side for free journals and on the high side for pay.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	48	92%	1,590	88%
Education	61	100%	1,439	100%
Language & Literature	73	100%	1,364	100%
Sociology	34	97%	957	97%
Anthropology	38	97%	829	97%
History	39	100%	824	100%
Political Science	17	100%	627	100%
Media & Communications	26	96%	601	96%
Earth Sciences	23	100%	592	100%
Psychology	21	90%	526	72%
Arts & Architecture	32	100%	488	100%
Economics	28	100%	432	100%
Law	19	100%	428	100%
Agriculture	10	100%	377	100%
Zoology	9	89%	316	74%
Philosophy	12	100%	295	100%
Ecology	11	100%	223	100%
Computer Science	12	100%	216	100%
Library Science	12	100%	186	100%
Miscellany	9	89%	168	82%
Other Sciences	5	100%	146	100%
Engineering	2	50%	128	27%
Technology	5	80%	122	85%
Religion	3	100%	91	100%
Mathematics	5	100%	72	100%
Biology	4	75%	47	70%
Physics	1	100%	44	100%
Chemistry	1	100%	30	100%

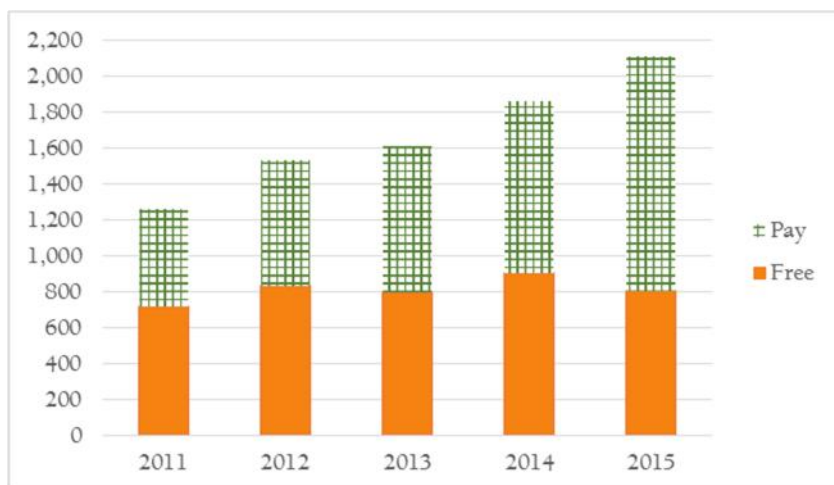
HSS strong again: seven of top eight, 11 of top 13.

# Sweden

Sweden has 69 OAWorld open access journals. Average 2015 cost per article in APC-charging journals: \$1,430. Overall average: \$888.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	67	66	65	61	53
%Free	52%	52%	54%	56%	57%
Articles	2,112	1,862	1,614	1,537	1,259
%Free	38%	49%	49%	54%	57%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	3	33%	701	29%
Med.: 60-149	5	0%	328	0%
Small: 20-59	24	54%	775	50%
Smallest: 0-19	37	62%	308	68%

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	16	831	\$1,416,539	\$1,705
\$600-\$1.399	13	373	\$403,764	\$1,082
\$200-\$599	3	107	\$54,683	\$511
Free	37	801		
Total	69	2,112	\$1,874,986	\$888

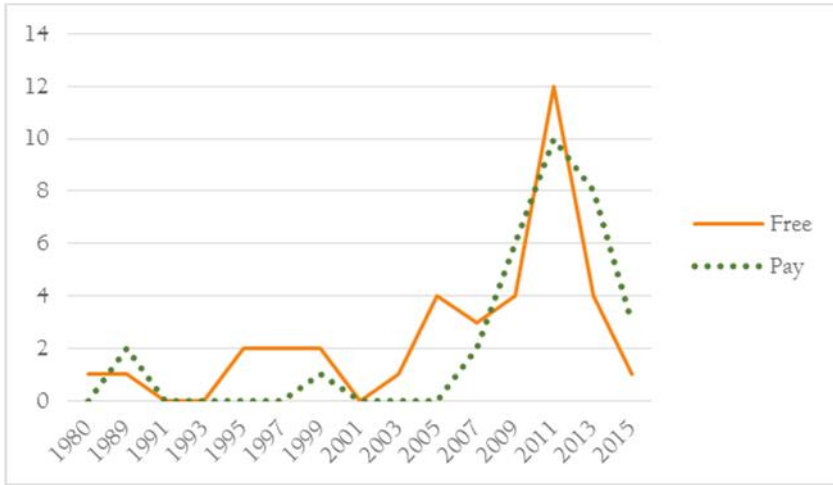
Unusual to have more expensive journals dominate.

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	28	7%	899	4%
Miscellaneous	19	79%	559	76%
Society/govt	5	80%	400	23%
Univ/college	17	94%	254	99%



**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	23	33.3%	
Grew 10-49%	12	17.4%	50.7%
Even, ±9.99%	15	21.7%	72.5%
Shrank 10-49%	13	18.8%	91.3%
Shrank 50%+	3	4.3%	95.7%

Twice as much growth as shrinkage; fast growth exceeds all shrinkage.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	10	27%	27
Journals/Pay	1	3%	31
Articles/Free	106	13%	695
Articles/Pay	42	3%	1,269

Low free article delisting rate and almost no pay delisting.

**Subjects**

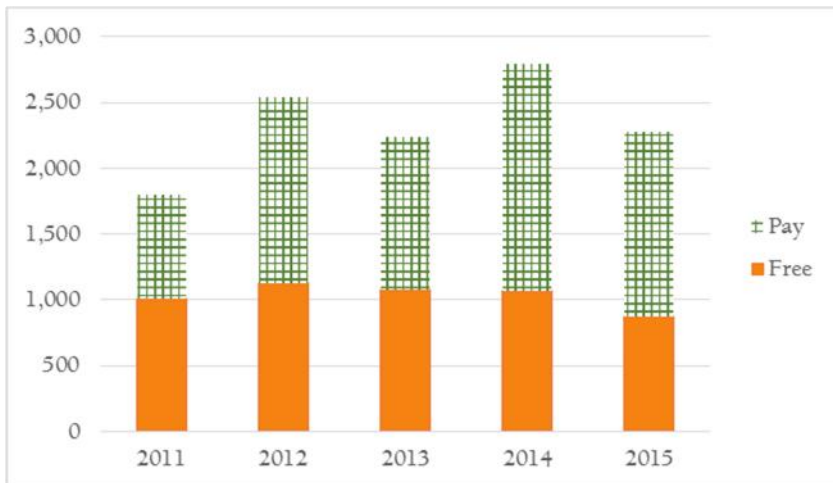
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	16	19%	1,065	23%
Physics	3	0%	141	0%
Language & Literature	7	100%	129	100%
Education	6	83%	90	93%
Agriculture	2	50%	83	8%
Political Science	6	83%	80	91%
Sociology	6	67%	73	78%
Technology	2	0%	65	0%
Biology	2	0%	54	0%
Other Sciences	1	0%	43	0%
Mathematics	1	100%	42	100%
Arts & Architecture	1	100%	39	100%
Zoology	1	0%	37	0%
Religion	1	100%	35	100%
Media & Communications	2	100%	32	100%
Economics	2	50%	24	50%
Miscellany	2	50%	24	13%
Library Science	1	100%	13	100%
Law	1	100%	11	100%
History	1	100%	10	100%
Chemistry	1	0%	7	0%
Psychology	1	0%	7	0%
Anthropology	2	100%	5	100%
Earth Sciences	1	0%	3	0%

# Switzerland

Switzerland has 43 OAWorld open access journals. The average 2015 cost per article in APC-charging journals was \$1,635; overall, \$1,012.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	41	43	41	35	32
%Free	59%	58%	59%	57%	63%
Articles	2,282	2,796	2,237	2,536	1,795
%Free	38%	38%	48%	44%	56%



Free journals peaked in 2012, pay journals in 2014.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	3	33%	895	23%
Med.: 60-149	10	40%	893	43%
Small: 20-59	7	43%	298	44%
Smallest: 0-19	23	74%	196	78%

**APC Levels and Revenues**

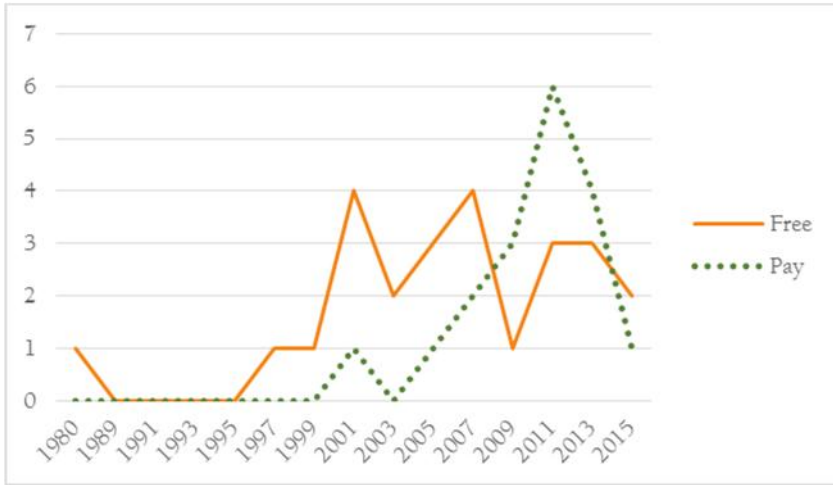
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	5	805	\$2,001,859	\$2,487
\$600-\$1.399	9	385	\$273,467	\$710
\$200-\$599	1	11	\$3,300	\$300
\$2-\$199	3	211	\$30,193	\$143
Free	25	870		
Total	43	2,282	\$2,308,819	\$1,012

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	12	0%	1,037	0%
Miscellaneous	11	64%	458	53%
Society/govt	7	71%	374	57%
Open Access	2	100%	268	100%
Univ/college	11	100%	145	100%

Really *one* traditional publisher with a dozen APC OA journals.

**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	3	7.0%	
Grew 10-49%	7	16.3%	23.3%
Even, ±9.99%	11	25.6%	48.8%
Shrank 10-49%	17	39.5%	88.4%
Shrank 50%+	5	11.6%	100.0%

More than twice as much shrinkage as growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	10	40%	15
Journals/Pay	2	11%	16
Articles/Free	268	31%	602
Articles/Pay	161	11%	1,251

High delisting rate for free journals, low for pay.

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	19	32%	1,215	46%
Biology	2	0%	586	0%
Economics	1	0%	154	0%
Earth Sciences	1	100%	69	100%
Language & Literature	2	100%	55	100%
Philosophy	1	100%	41	100%
Political Science	2	100%	25	100%
Computer Science	2	100%	23	100%
Sociology	1	100%	19	100%
History	1	100%	15	100%
Law	2	100%	15	100%
Education	2	100%	14	100%
Library Science	2	100%	13	100%
Religion	2	100%	12	100%
Agriculture	1	0%	11	0%
Miscellany	1	100%	8	100%
Arts & Architecture	1	0%	7	0%

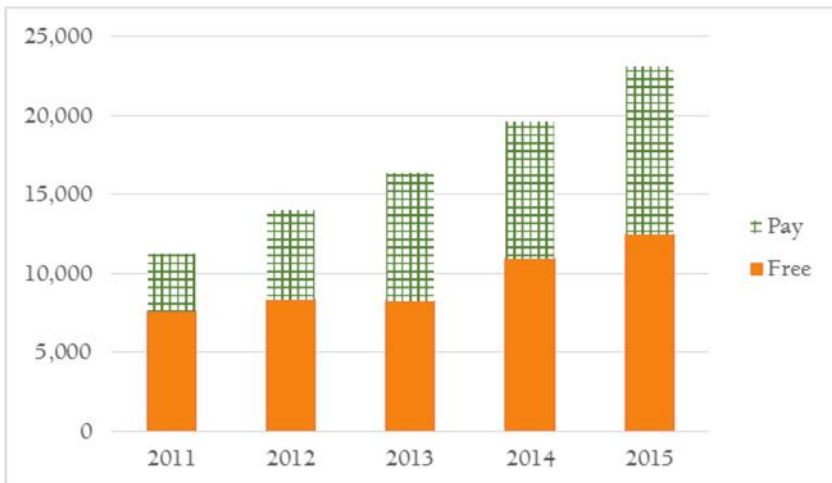
Biomed accounts for three out of four articles.

# United Kingdom

The UK has 300 OAWorld open access journals. In 2015, average cost per article in APC-charging journals was \$1,321; overall average \$607.

## Journals and Articles

	2015	2014	2013	2012	2011
Journals	280	278	252	220	189
%Free	57%	59%	60%	63%	69%
Articles	23,098	19,615	16,385	13,992	11,229
%Free	54%	56%	50%	59%	67%



Both free and pay journals growing fairly rapidly.

**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	7	43%	13,555	64%
Large: 150-599	11	27%	3,033	23%
Med.: 60-149	25	32%	2,007	34%
Small: 20-59	92	51%	3,032	50%
Smallest: 0-19	165	70%	1,471	66%

Five megajournals in STEM and medicine.

**APC Levels and Revenues**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	24	5,089	\$11,050,690	\$2,171
\$600-\$1,399	38	1,894	\$2,045,760	\$1,080
\$200-\$599	48	2,006	\$696,222	\$347
\$2-\$199	14	1,627	\$228,707	\$141
Free	176	12,482		
Total	300	23,098	\$14,021,379	\$607

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	101	60%	14,474	69%
Traditional	39	5%	2,904	5%
Univ/college	89	91%	2,634	58%
Society/govt	27	78%	2,084	30%
Open Access	44	25%	1,002	19%

Independent journals dominate UK open access.



**Starting Date**



**Growth and Shrinkage**

Change 2014-15	Count	Percent	Cum%
Grew 50%+	58	19.3%	
Grew 10-49%	44	14.7%	34.0%
Even, ±9.99%	54	18.0%	52.0%
Shrank 10-49%	74	24.7%	76.7%
Shrank 50%+	48	16.0%	92.7%

More shrinkage than growth.

**Gray OA and DOAJ16**

	GrayOA	%Gray	DOAJ16
Journals/Free	57	32%	119
Journals/Pay	22	18%	102
Articles/Free	695	6%	11,787
Articles/Pay	554	5%	10,062

Most delisted journals were small; very low article percentages.

**Subjects**

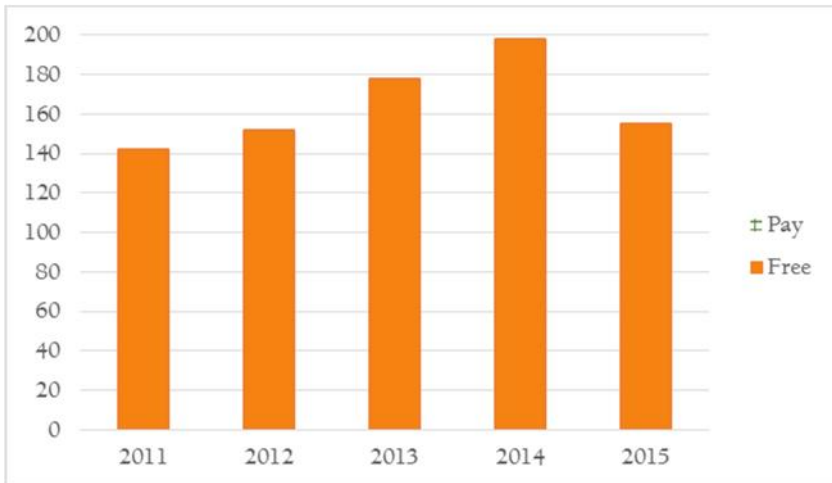
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Physics	6	17%	6,693	84%
Engineering	7	29%	4,253	54%
Medicine	66	44%	3,742	19%
Chemistry	4	0%	1,243	0%
Biology	9	22%	1,174	63%
Ecology	8	63%	771	49%
Other Sciences	7	29%	715	36%
Agriculture	3	0%	594	0%
Education	23	91%	489	76%
Economics	17	18%	431	15%
Sociology	19	68%	429	80%
Technology	4	0%	303	0%
History	10	100%	287	100%
Media & Communications	12	100%	267	100%
Language & Literature	15	100%	233	100%
Anthropology	15	67%	222	79%
Library Science	8	75%	214	86%
Arts & Architecture	12	83%	185	72%
Mathematics	6	17%	177	4%
Computer Science	6	33%	160	63%
Psychology	8	50%	127	26%
Political Science	8	63%	94	35%
Law	8	100%	83	100%
Religion	4	75%	57	75%
Philosophy	8	100%	48	100%
Zoology	4	75%	38	71%
Miscellany	2	50%	35	60%
Earth Sciences	1	0%	34	0%

## Other Western European Countries

Three other countries have a total of ten OAWorld open access journals, all free.

### Journals and Articles

	2015	2014	2013	2012	2011
Journals	9	10	8	9	8
Articles	155	198	178	152	142



**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Small: 20-59	2	76
Smallest: 0-19	8	79

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	7	136
Miscellaneous	2	14
Society/govt	1	5

**Growth and Shrinkage**

<b>Change 2014-15</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1	10.0%	
Grew 10-49%	1	10.0%	20.0%
Even, $\pm$ 9.99%	2	20.0%	40.0%
Shrank 10-49%	4	40.0%	80.0%
Shrank 50%+	2	20.0%	100.0%

Mostly shrinking

**Gray OA and DOAJ16**

	<b>GrayOA</b>	<b>%Gray</b>	<b>DOAJ16</b>
Journals/Free	4	40%	6
Articles/Free	59	38%	96

High delisting rate.

### Subjects

Subject	Journals	Articles
Political Science	2	57
Medicine	2	48
Education	3	31
Arts & Architecture	1	14
Sociology	1	5
Law	1	0

### Country Summaries

#### Iceland

Four HSS journals, one delisted. One small, three very small. Total of 78 articles in 2015, down from 109 in 2014.

#### Luxembourg

One very small arts & architecture journal; 14 articles in 2015, up from six in 2014.

#### Malta

Five journals of which only two very small ones are still in *DOAJ*. One small and two very small journals delisted. Total of 63 articles in 2015, down from 83 in 2014.

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