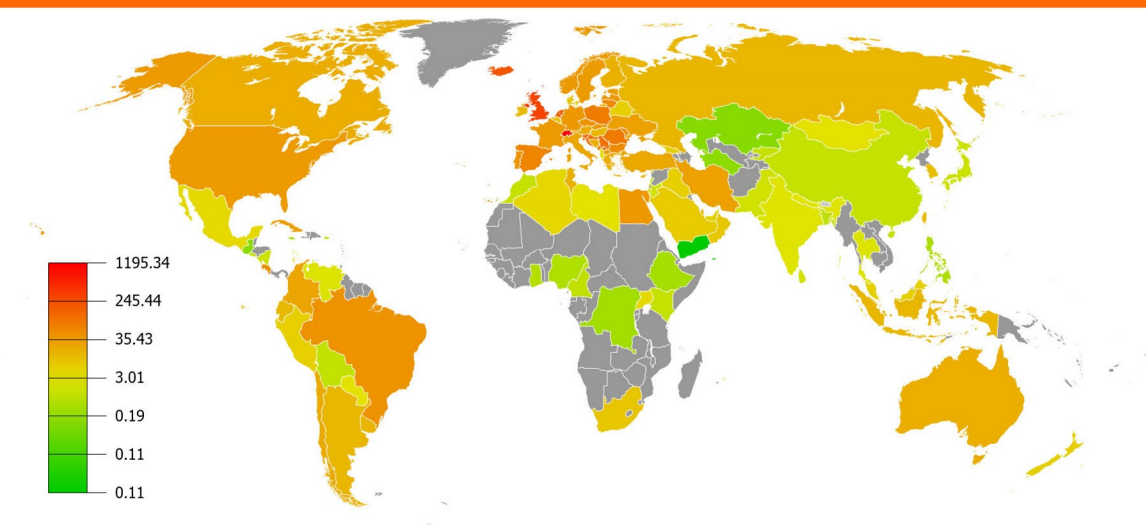


# Gold Open Access by Country 2012-2017



A Supplement to  
GOAJ3: Gold Open Access Journals 2012-2017

Walt Crawford



GOLD OPEN ACCESS  
BY COUNTRY  
2012-2017

Supplement to GOAJ3: *Gold  
Open Access Journals 2012-  
2017*

Walt Crawford

Cites & Insights Books  
Livermore, California, 2018

# Gold Open Access by Country 2012-2017

## Supplement to GOAJ3: *Gold Open Access Journals* 2012-2017

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This book was prepared entirely in Word 2013, using the licensed typefaces Berkeley Book and Berkeley (bold) for text and Calibri for headings and subheadings. Excel 2013 was used for data gathering and to prepare tables and graphs. The template is a customized version of bk6pv.dotx (modified for different typefaces and slightly different heading practices), a template developed by the author, modified and improved with the cooperation Information Today, Inc. and freely available at [waltcrawford.name/bk6pv.dotx](http://waltcrawford.name/bk6pv.dotx). (The template named uses Palatino Linotype for body text and Verdana for headings.) For more about the template and using no-cost methods to produce professional-quality books, read *The Librarian's Guide to Micropublishing*.

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# Preface

This book is a supplement to *GOAJ3: Gold Open Access Journals 2012-2017*, providing a look at serious gold open access publishing on a country-by-country (and region) basis.

It is *not* a direct successor to *The Countries of OAWorld 2011-2016*, and region tables will not always match those in *GOAJ3: Gold Open Access Journals 2012-2017*, for one major and one minor reason:

- **Major:** *all* 10,293 journals in the larger project are included in regions and countries. APCLand is *not* separated out as a “region.” This has a huge impact on nine countries, and a smaller impact on 20 others.
- **Minor:** *all* tables (except journals and articles by year, where it’s meaningless) include all journals, including those with no 2017 articles.

Countries with at least 10 OA journals have full details, with some formatting changes to provide a more compact presentation.

Publisher category and subject tables appear sorted by article count. Table rows with no content are deleted. Order of tables may be adjusted to save space.

There is very little commentary, if any. My impression is that commentary in the first “Countries” book was generally useless. You can draw your own conclusions.

After the overall (included for consistency), 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 are deleted, as are starting-date graphs for countries with 10 to 24 journals. Some overall graphs are repeated for context.

Thanks again to SPARC for sponsoring this project.

The heatmap on the cover is based on combined 2016-2017 articles per 100,000 people and was generated at [GunnMap 2](#). Appendix A includes details.

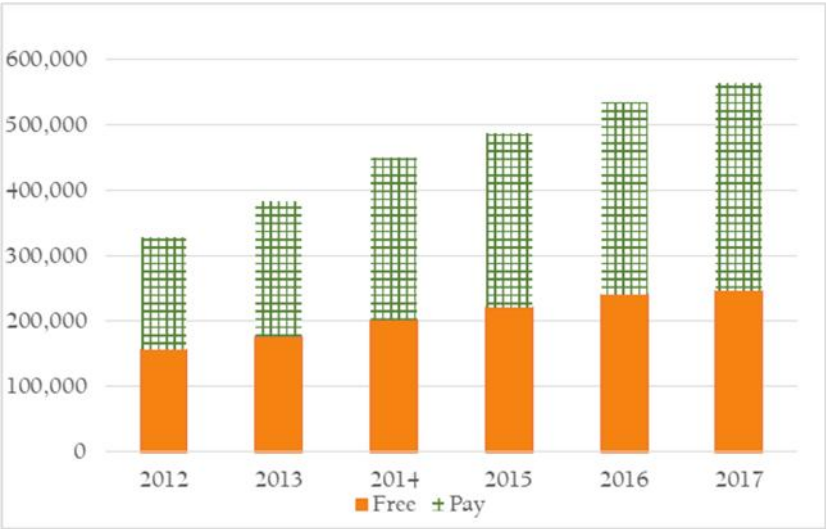


# Overall

Overall, 10,293 journals published 563,146 articles in 2017. Average articles per journal: 36 for free journals, 110 for pay journals. Cost per article: \$1,557 for APC journals, \$876 for all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	9,668	9,837	9,481	8,876	7,899	6,873
%Free	70%	70%	70%	70%	70%	72%
Articles	563,146	533,496	487,469	450,222	383,125	327,766
%Free	44%	45%	45%	45%	46%	48%



## 2 Gold Open Access by Country 2012-2017

### Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	116	19%	163,483	13%
Large: 150-599	618	32%	117,350	26%
Med.: 60-149	1,887	59%	123,579	57%
Small: 20-59	5,340	76%	136,837	78%
Smallest: 1-19	2,332	76%	21,897	81%

### APC Levels and Revenue

	Journals	Articles	Revenue	\$/article
\$1,400+	949	200,541	\$433,951,489	\$2,164
\$600-\$1,399	885	41,259	\$42,142,414	\$1,021
\$200-\$599	505	37,219	\$14,042,138	\$377
\$0.20-\$199	783	37,817	\$3,105,751	\$82
Free	7,171	246,310		
Total	10,293	563,146	\$493,241,792	\$876

### Publisher Category

Category	Journals	%Free	Articles	%Free
Open Access	2,089	35%	182,599	14%
Univ/college	5,273	87%	175,080	76%
Traditional	1,027	38%	112,474	30%
Society/govt	784	78%	46,543	53%
Miscellaneous	1,120	77%	46,450	62%

**Regions**

<b>Region</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Africa	126	52%	6,708	41%
Asia	1,556	69%	56,835	55%
Eastern Europe	1,622	83%	62,151	72%
Latin America	1,923	94%	73,299	86%
Middle East	1,158	48%	45,245	47%
Pacific/English	753	68%	70,874	22%
Western Europe	3,155	57%	248,034	27%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1,697	16.5%	
Grew 25-49.9%	1,020	9.9%	26.4%
Grew 10-24.99%	1,157	11.2%	37.6%
Even, $\pm$ 9.99%	2,658	25.8%	63.5%
Shrank 10-24.99%	1,236	12.0%	75.5%
Shrank 25-49.99%	1,207	11.7%	87.2%
Shrank 50%+	1,318	12.8%	

**Subjects**

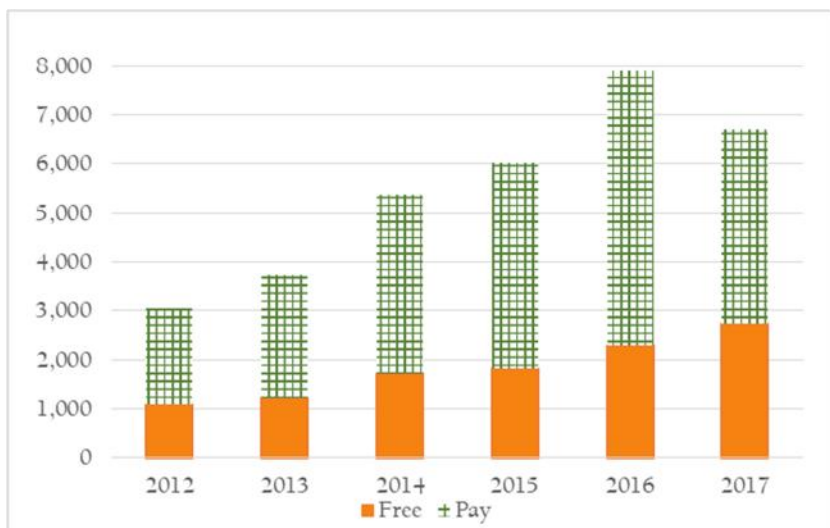
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	2,331	49%	165,953	34%
Other Sciences	196	73%	67,122	10%
Biology	363	33%	34,882	13%
Agriculture	393	58%	21,662	39%
Engineering	372	63%	21,330	41%
Education	674	84%	19,833	82%
Physics	153	43%	19,553	47%
Ecology	281	62%	19,178	31%
Technology	190	66%	17,832	64%
Economics	634	80%	17,175	69%
Language & Literature	609	91%	16,860	86%
Chemistry	161	45%	15,235	28%
Earth Sciences	351	67%	15,206	51%
Sociology	409	88%	12,283	80%
Anthropology	426	89%	12,276	79%
Computer Science	262	60%	10,143	43%
Zoology	215	48%	10,029	31%
Mathematics	240	63%	8,376	52%
Miscellany	202	87%	8,359	74%
History	258	96%	6,933	95%
Psychology	173	83%	6,894	54%
Law	279	92%	6,641	91%
Political Science	232	91%	6,342	91%
Arts & Architecture	248	92%	6,170	85%
Media & Communications	188	93%	5,379	93%
Religion	169	87%	4,449	81%
Philosophy	160	96%	4,082	96%
Library Science	124	95%	2,969	97%

# Africa

126 OA journals published 6,708 articles in 2017. APC-charging journals averaged 66 articles each, compared to 55 for free journals. Average cost per article: \$419 across fee journals, \$248 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	122	124	117	113	99	89
%Free	51%	52%	51%	51%	48%	46%
Articles	6,708	7,898	6,022	5,371	3,734	3,048
%Free	41%	29%	30%	32%	33%	36%



### Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	3	33%	1,744	46%
Large: 150-599	6	17%	1,297	11%
Med.: 60-149	28	39%	1,727	41%
Small: 20-59	61	57%	1,638	55%
Smallest: 1-19	28	64%	302	59%

### APC Levels and Revenue

	Journals	Articles	Revenue	\$/article
\$600-\$1,399	21	963	\$896,428	\$931
\$200-\$599	17	1,285	\$487,162	\$379
\$0.20-\$199	22	1,729	\$281,293	\$163
Free	66	2,731	\$0	
Total	126	6,708	\$1,664,883	\$248

### Publisher Category

Category	Journals	%Free	Articles	%Free
Univ/college	47	68%	2,689	64%
Open Access	45	38%	1,794	27%
Society/govt	11	55%	1,236	16%
Miscellaneous	22	50%	967	33%
Traditional	1	0%	22	0%



### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	31	24.6%	
Grew 25-49.9%	13	10.3%	34.9%
Grew 10-24.99%	17	13.5%	48.4%
Even, $\pm 9.99\%$	24	19.0%	67.5%
Shrank 10-24.99%	19	15.1%	82.5%
Shrank 25-49.99%	15	11.9%	94.4%
Shrank 50%+	7	5.6%	

### Countries

Country	Journals	%Free	Articles	%Free
Algeria	15	100%	1,165	100%
Cameroon	1	0%	124	0%
Congo, the Democratic Republic of the	1	100%	138	100%
Ethiopia	4	100%	156	100%
Ghana	5	40%	85	48%
Kenya	3	0%	268	0%
Libya	3	67%	135	59%
Mauritius	1	100%	11	100%
Morocco	10	90%	215	89%
Nigeria	5	40%	500	8%
South Africa	72	38%	2,882	30%
Tunisia	5	60%	179	30%
Uganda	1	0%	850	0%

**Subjects**

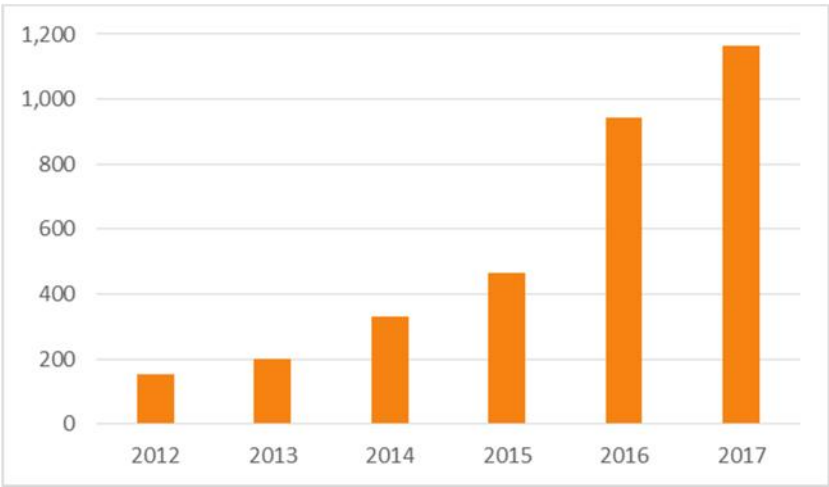
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	8	63%	303	54%
Anthropology	1	100%	5	100%
Biology	3	67%	184	23%
Chemistry	3	67%	101	76%
Computer Science	4	50%	78	15%
Earth Sciences	1	100%	10	100%
Ecology	7	71%	230	72%
Economics	5	40%	159	45%
Education	8	38%	214	23%
Engineering	7	43%	273	40%
History	1	0%	24	0%
Language & Literature	9	33%	293	9%
Law	4	75%	111	63%
Library Science	1	0%	13	0%
Mathematics	1	0%	11	0%
Media & Communications	1	0%	17	0%
Medicine	26	65%	2,346	28%
Miscellany	6	50%	219	38%
Other Sciences	5	100%	989	100%
Physics	1	0%	11	0%
Political Science	3	100%	65	100%
Psychology	1	0%	25	0%
Religion	8	13%	521	0%
Sociology	5	20%	322	7%
Technology	3	67%	50	54%
Zoology	4	50%	134	68%

# Algeria

Algeria’s 15 OA journals, none with fees, published 1,165 articles in 2017—an average of 90 articles per *active* journal. No charges.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	13	15	15	14	10	9
Articles	1,165	942	464	330	201	153



**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Largest: 600+	1	806
Med.: 60-149	2	141
Small: 20-59	6	175
Smallest: 1-19	6	43

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	11	1,111
Miscellaneous	3	48
Society/govt	1	6

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1	6.7%	
Grew 25-49.9%	3	20.0%	26.7%
Grew 10-24.99%	2	13.3%	40.0%
Even, $\pm 9.99\%$	3	20.0%	60.0%
Shrank 10-24.99%	1	6.7%	66.7%
Shrank 25-49.99%	3	20.0%	86.7%
Shrank 50%+	2	13.3%	

**Subjects**

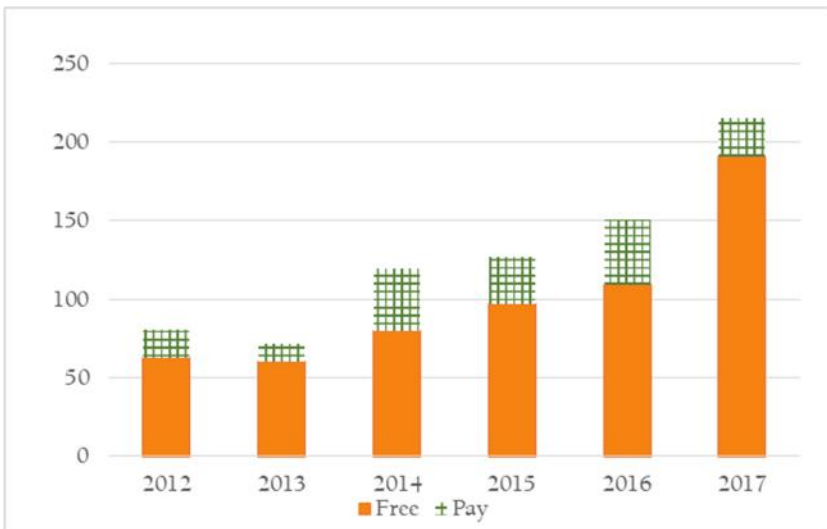
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Other Sciences	2	813
Engineering	3	108
Miscellany	1	67
Agriculture	2	66
Economics	1	53
Technology	2	27
Medicine	2	24
Language & Literature	2	7

# Morocco

Morocco's ten OA journals published 215 articles in 2017. 24 articles per pay journal; 21 per free journal; average cost per article \$180 across APC-charging journals, \$20 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	10	9	8	6	5	4
%Free	90%	89%	88%	83%	80%	75%
Articles	215	151	127	120	72	81
%Free	89%	72%	76%	67%	83%	78%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	1	100%	62	100%
Small: 20-59	6	83%	129	81%
Smallest: 1-19	3	100%	24	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$0.20-\$199	1	24	\$4,320	\$180
Free	9	191	\$0	

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	7	100%	165	100%
Miscellaneous	2	50%	44	45%
Society/govt	1	100%	6	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	5	50.0%	50.0%
Even, $\pm 9.99\%$	1	10.0%	60.0%
Shrank 10-24.99%	2	20.0%	80.0%
Shrank 25-49.99%	2	20.0%	

**Subjects**

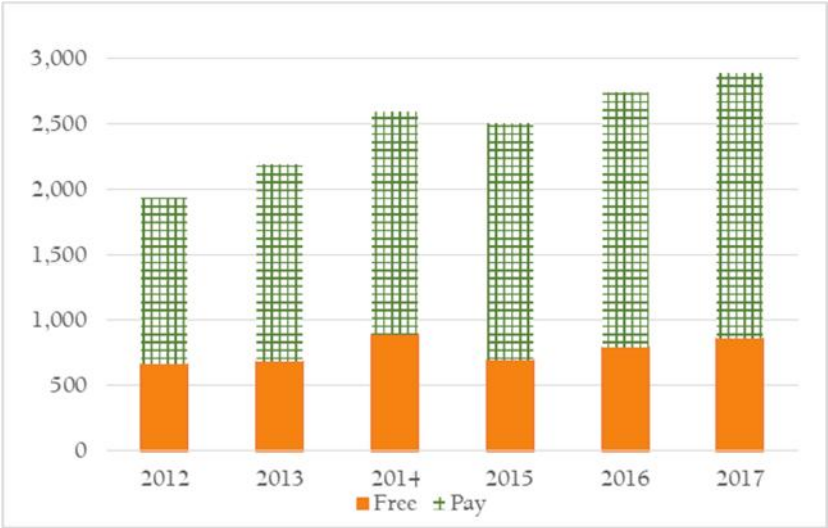
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	2	100%	70	100%
Ecology	2	100%	51	100%
Medicine	2	100%	50	100%
Chemistry	1	0%	24	0%
Earth Sciences	1	100%	10	100%
Computer Science	1	100%	6	100%
Biology	1	100%	4	100%

# South Africa

South Africa’s 72 journals published 2,882 articles in 2017, with 33 articles per no-fee journal, 45 per APC-charging. Average article cost: \$632 among APC-charging journals, \$445 among all journals

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	71	71	66	66	65	60
%Free	37%	37%	36%	38%	37%	35%
Articles	2,882	2,737	2,505	2,591	2,195	1,935
%Free	30%	29%	28%	34%	31%	34%





**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	3	0%	639	0%
Med.: 60-149	17	29%	1,010	34%
Small: 20-59	41	44%	1,097	42%
Smallest: 1-19	11	36%	136	34%

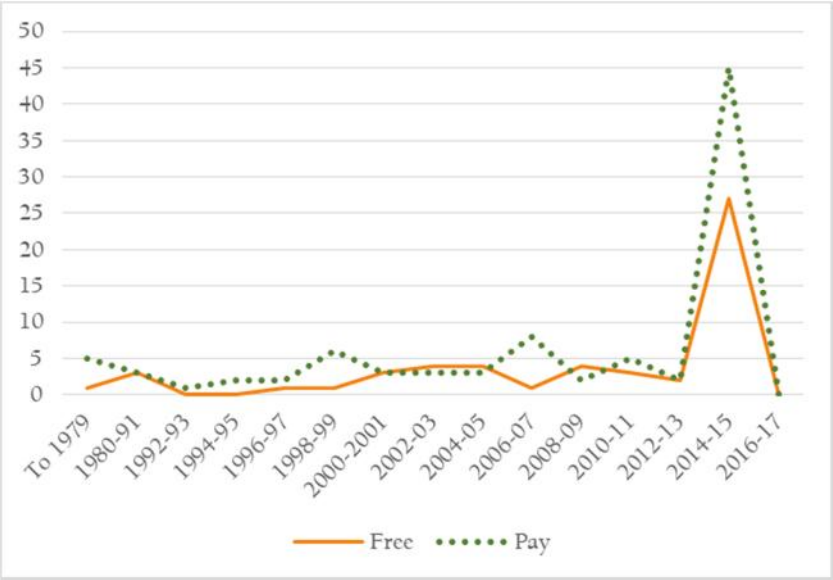
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	21	963	\$896,428	\$931
\$200-\$599	15	817	\$347,662	\$426
\$2-\$199	9	246	\$37,153	\$151
Free	27	856	\$0	
Total	72	2,882	\$1,281,243	\$445

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	42	40%	1,750	28%
Univ/college	15	27%	461	16%
Miscellaneous	9	44%	420	36%
Society/govt	5	40%	229	59%
Traditional	1	0%	22	0%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	19	26.4%	
Grew 25-49.9%	7	9.7%	36.1%
Grew 10-24.99%	11	15.3%	51.4%
Even, ±9.99%	11	15.3%	66.7%
Shrank 10-24.99%	13	18.1%	84.7%
Shrank 25-49.99%	8	11.1%	95.8%
Shrank 50%+	3	4.2%	

**Subjects**

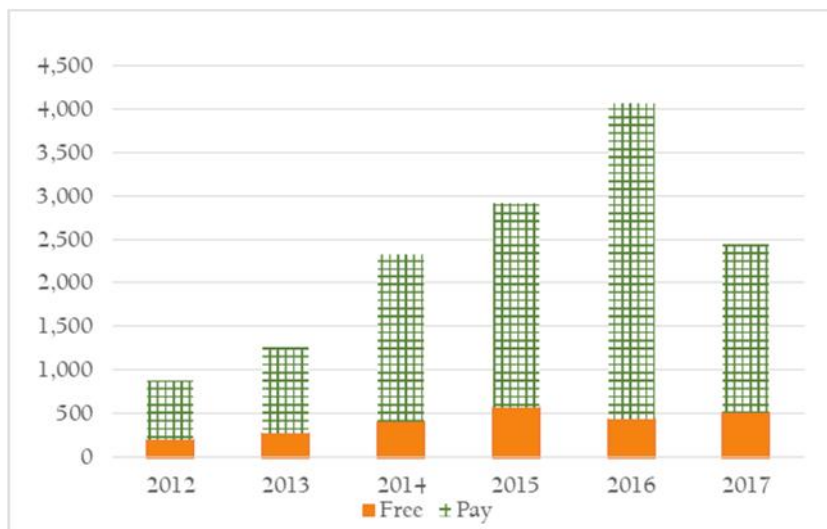
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	16	63%	675	49%
Religion	8	13%	521	0%
Sociology	3	0%	276	0%
Education	8	38%	214	23%
Language & Literature	5	0%	210	0%
Other Sciences	2	100%	161	100%
Ecology	3	67%	115	77%
Law	3	67%	101	59%
Economics	3	0%	87	0%
Engineering	2	0%	86	0%
Zoology	3	33%	74	42%
Computer Science	3	33%	72	8%
Political Science	3	100%	65	100%
Miscellany	2	0%	47	0%
Biology	1	100%	38	100%
Chemistry	1	100%	27	100%
Psychology	1	0%	25	0%
History	1	0%	24	0%
Technology	1	0%	23	0%
Media & Communications	1	0%	17	0%
Library Science	1	0%	13	0%
Mathematics	1	0%	11	0%

## Other African Countries

In all, 29 journals with 2,446 articles in 2017; 37 articles average per free journal, 138 per APC-charging. Average cost \$197 per article across APC-charging journals, \$155 across all journals.

### Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	28	29	28	27	19	16
%Free	50%	52%	50%	52%	53%	50%
Articles	2,446	4,068	2,926	2,330	1,266	879
%Free	21%	11%	20%	18%	22%	24%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	0%	938	0%
Large: 150-599	3	33%	658	21%
Med.: 60-149	8	38%	514	30%
Small: 20-59	8	75%	237	67%
Smallest: 1-19	8	63%	99	67%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	468	\$139,500	\$298
\$2-\$199	12	1,459	\$239,820	\$164
Free	15	519	\$0	\$0
Total	29	2,446	\$379,320	\$155

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Society/govt	4	50%	995	6%
Univ/college	14	71%	952	39%
Miscellaneous	8	38%	455	21%
Open Access	3	0%	44	0%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	6	20.7%	
Grew 25-49.9%	3	10.3%	31.0%
Grew 10-24.99%	4	13.8%	44.8%
Even, ±9.99%	9	31.0%	75.9%
Shrank 10-24.99%	3	10.3%	86.2%
Shrank 25-49.99%	2	6.9%	93.1%
Shrank 50%+	2	6.9%	

## Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	6	50%	1,597	15%
Agriculture	4	25%	167	17%
Biology	1	0%	142	0%
Miscellany	3	67%	105	16%
Engineering	2	0%	79	0%
Language & Literature	2	50%	76	26%
Ecology	2	50%	64	41%
Zoology	1	100%	60	100%
Chemistry	1	100%	50	100%
Sociology	2	50%	46	52%
Economics	1	100%	19	100%
Other Sciences	1	100%	15	100%
Physics	1	0%	11	0%
Law	1	100%	10	100%
Anthropology	1	100%	5	100%

## Country Summaries

### Cameroon

One fee-charging journal; 124 articles in 2017.

### The Democratic Republic of the Congo

One no-fee journal; 138 articles in 2017.

### Ethiopia

Four no-fee journals with 156 articles in 2017.

## 22 *Gold Open Access by Country 2012-2017*

### **Ghana**

Five journals, three with fees; 85 articles in 2017.

### **Kenya**

Three fee-charging journals; 268 articles in 2017.

### **Libya**

Three growing journals, one with fees; 135 articles in 2017.

### **Mauritius**

One free journal with 11 articles in 2017.

### **Nigeria**

Five journals, three with fees; 500 articles in 2017.

### **Tunisia**

Five journals, two with fees; 179 articles in 2017.

### **Uganda**

One fee-charging journal; 850 articles in 2017.

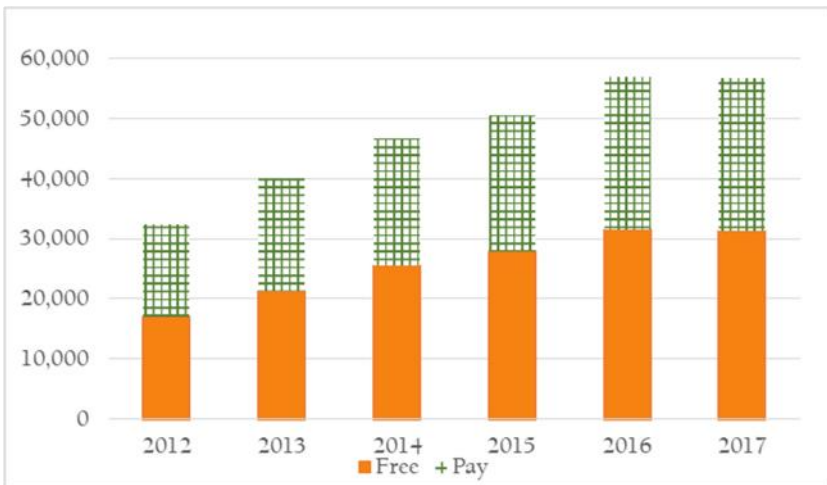


# Asia

Asia's 1,556 OA journals published 56,835 articles in 2017—averaging 30 articles per free journal, 55 per APC-charging. Average cost per article: \$343 across APC-charging journals, \$154 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	1,498	1,463	1,318	1,170	996	844
%Free	69%	69%	68%	68%	67%	66%
Articles	56,835	56,962	50,641	46,725	40,042	32,320
%Free	55%	55%	55%	55%	53%	52%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	6	17%	4,682	5%
Large: 150-599	80	45%	14,118	42%
Med.: 60-149	203	60%	13,566	61%
Small: 20-59	736	68%	18,182	67%
Smallest: 1-19	531	79%	6,287	78%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	13	1,696	\$3,212,100	\$1,894
\$600-\$1,399	24	1,415	\$1,352,565	\$956
\$200-\$599	84	9,850	\$3,236,228	\$329
\$0.20-\$199	359	12,481	\$925,352	\$74
Free	1,076	31,393		
Total	1,556	56,835	\$8,726,245	\$154

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	1,080	71%	25,978	60%
Open Access	141	65%	12,424	52%
Miscellaneous	133	57%	8,070	31%
Traditional	90	79%	5,843	81%
Society/govt	112	63%	4,520	45%

### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	233	15.0%	
Grew 25-49.9%	116	7.5%	22.4%
Grew 10-24.99%	167	10.7%	33.2%
Even, $\pm 9.99\%$	572	36.8%	69.9%
Shrank 10-24.99%	173	11.1%	81.0%
Shrank 25-49.99%	149	9.6%	90.6%
Shrank 50%+	146	9.4%	

### Countries

Country	Journals	%Free	Articles	%Free
Bangladesh	17	65%	607	69%
China	78	62%	7,114	40%
Hong Kong	21	48%	762	61%
India	196	65%	16,562	49%
Indonesia	1,011	70%	21,006	64%
Japan	17	41%	955	27%
Korea, Republic of	59	68%	3,173	63%
Kyrgyzstan	2	100%	38	100%
Malaysia	32	72%	1,241	53%
Mongolia	3	67%	61	30%
Nepal	15	100%	428	100%
Pakistan	34	68%	1,673	33%
Philippines	5	80%	246	40%
Singapore	9	56%	347	41%
Sri Lanka	10	100%	213	100%
Taiwan, Province of China	26	81%	1,587	72%
Thailand	21	76%	822	74%

**Subjects**

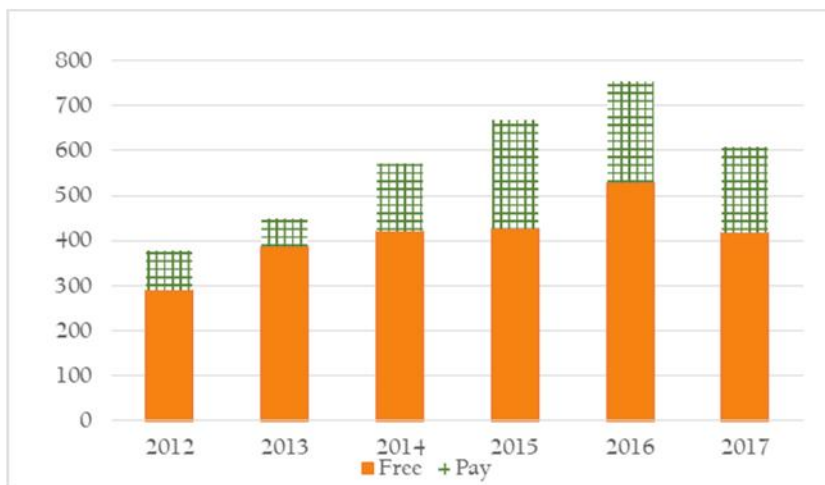
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	348	67%	24,982	52%
Education	184	71%	4,298	66%
Engineering	72	63%	3,516	41%
Economics	139	78%	2,658	76%
Technology	36	72%	2,103	77%
Agriculture	72	51%	1,998	42%
Other Sciences	40	68%	1,936	34%
Zoology	37	32%	1,727	27%
Biology	38	63%	1,480	52%
Language & Literature	75	75%	1,415	70%
Earth Sciences	34	65%	1,316	59%
Computer Science	67	64%	1,184	68%
Ecology	32	66%	1,120	42%
Religion	71	89%	1,078	85%
Law	48	81%	811	72%
Mathematics	38	71%	772	72%
Physics	23	57%	645	41%
Anthropology	27	70%	580	74%
Sociology	33	73%	567	64%
Miscellany	20	65%	532	53%
Chemistry	22	68%	506	53%
Media & Communications	23	78%	390	72%
Arts & Architecture	20	85%	322	84%
Political Science	18	67%	302	56%
Library Science	14	86%	210	90%
Psychology	13	85%	202	87%
History	8	63%	112	53%
Philosophy	4	75%	73	55%

# Bangladesh

Seventeen OA journals, 607 articles in 2017; average 30 articles per free journal and 32 per fee-charging. Average cost per article: \$77 across APC-charging journals, \$24 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	17	17	17	16	13	11
%Free	65%	65%	65%	69%	85%	82%
Articles	607	754	668	570	450	378
%Free	69%	70%	64%	74%	86%	76%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	100%	75	100%
Med.: 60-149	7	57%	364	63%
Small: 20-59	7	57%	147	63%
Smallest: 1-19	2	100%	21	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$0.20-\$199	6	189	\$14,580	\$77
Free	11	418	\$0	\$0
Total	17	607	\$14,580	\$24

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Miscellaneous	5	60%	243	69%
Univ/college	5	60%	207	62%
Society/govt	7	71%	157	78%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	1	5.9%	
Grew 10-24.99%	4	23.5%	29.4%
Even, $\pm$ 9.99%	2	11.8%	41.2%
Shrank 10-24.99%	3	17.6%	58.8%
Shrank 25-49.99%	4	23.5%	82.4%
Shrank 50%+	3	17.6%	

**Subjects**

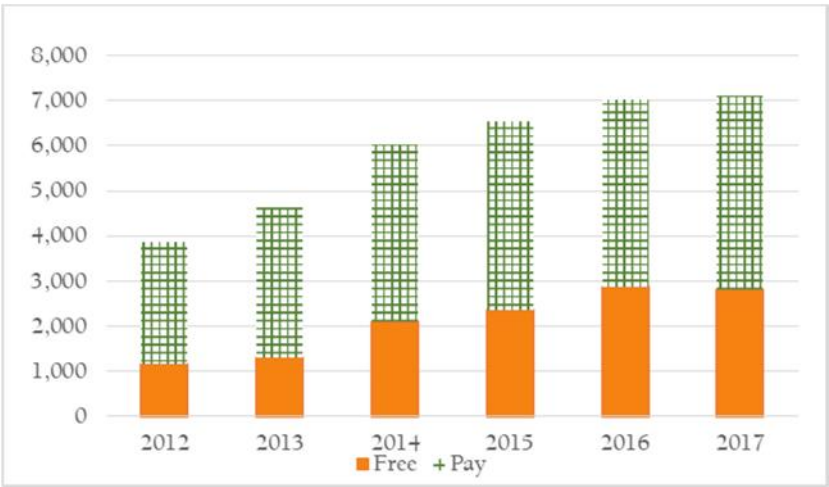
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	6	100%	321	100%
Other Sciences	2	50%	84	52%
Zoology	2	50%	73	23%
Agriculture	3	33%	68	22%
Anthropology	1	0%	20	0%
Biology	1	0%	20	0%
Engineering	1	100%	11	100%
Philosophy	1	100%	10	100%

# China

China's 78 OA journals published 7,114 articles in 2017 and averaged 143 articles in fee journals, 59 in free. Average article cost: \$403 across APC-charging journals, \$243 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	78	78	70	57	43	37
%Free	62%	62%	59%	54%	47%	46%
Articles	7,114	7,037	6,553	6,024	4,618	3,860
%Free	40%	41%	36%	35%	28%	30%





**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	14	21%	3,399	13%
Med.: 60-149	33	64%	2,672	59%
Small: 20-59	28	75%	997	76%
Smallest: 1-19	3	100%	46	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$1,400+	4	123	\$184,500	\$1,500
\$600-\$1,399	4	355	\$330,080	\$930
\$200-\$599	14	2,825	\$1,089,594	\$386
\$0.20-\$199	8	990	\$126,353	\$128
Free	48	2,821		
Total	78	7,114	\$1,730,527	\$243

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Traditional	42	81%	2,616	85%
Miscellaneous	19	37%	2,269	10%
Univ/college	14	50%	1,770	21%
Society/govt	3	0%	459	0%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	5	6.4%	
Grew 25-49.9%	12	15.4%	21.8%
Grew 10-24.99%	5	6.4%	28.2%
Even, $\pm 9.99\%$	32	41.0%	69.2%
Shrank 10-24.99%	15	19.2%	88.5%
Shrank 25-49.99%	7	9.0%	97.4%
Shrank 50%+	2	2.6%	

Starting Date



Subjects

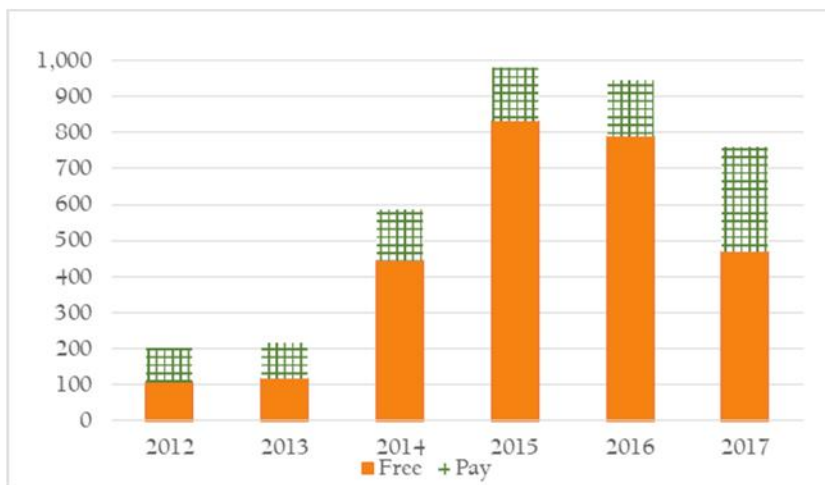
Subject	Journals	%Free	Articles	%Free
Medicine	26	62%	2,893	30%
Engineering	9	44%	1,126	21%
Earth Sciences	9	78%	696	63%
Technology	8	63%	692	63%
Agriculture	5	40%	464	26%
Other Sciences	2	50%	258	49%
Physics	3	0%	241	0%
Zoology	2	50%	155	39%
Biology	2	100%	154	100%
Ecology	4	50%	133	64%
Anthropology	1	100%	90	100%
Computer Science	3	100%	82	100%
Economics	1	100%	56	100%
Arts & Architecture	1	100%	42	100%
Language & Literature	1	100%	17	100%
Mathematics	1	100%	15	100%

# Hong Kong

Twenty-one OA journals, 762 articles in 2017; 27 articles per no-fee journal, 52 per APC-charging. Average article cost \$769 across APC-charging journals, \$290 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	20	19	17	15	8	7
%Free	45%	47%	53%	53%	38%	29%
Articles	762	947	981	585	216	200
%Free	61%	83%	85%	76%	54%	53%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	4	100%	226	100%
Med.: 60-149	4	50%	352	40%
Small: 20-59	6	50%	141	66%
Smallest: 1-19	7	14%	43	14%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$600-\$1.399	3	228	\$204,000	\$895
\$200-\$599	8	67	\$22,965	\$343
Free	10	467	\$0	\$0
Total	21	762	\$226,965	\$298

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Traditional	7	57%	404	44%
Miscellaneous	3	100%	143	100%
Univ/college	1	100%	114	100%
Open Access	8	25%	94	36%
Society/govt	2	0%	7	0%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	4	19.0%	
Grew 25-49.9%	1	4.8%	23.8%
Grew 10-24.99%	1	4.8%	28.6%
Even, $\pm$ 9.99%	5	23.8%	52.4%
Shrank 10-24.99%	1	4.8%	57.1%
Shrank 25-49.99%	4	19.0%	76.2%
Shrank 50%+	5	23.8%	

**Subjects**

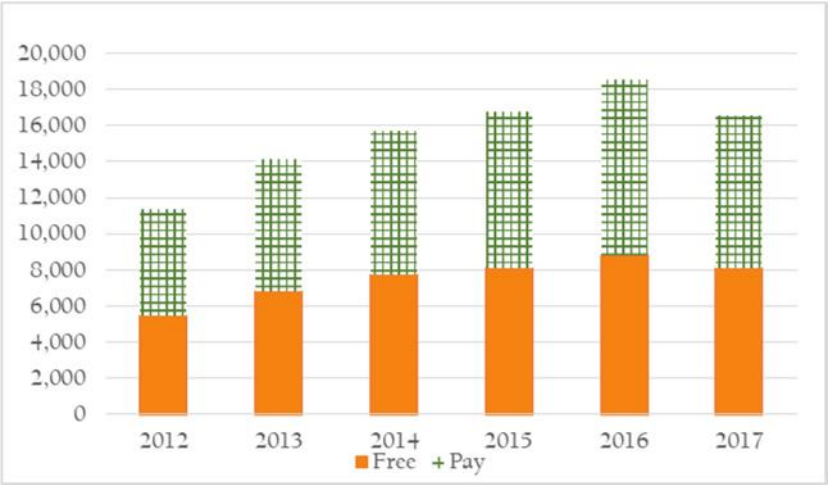
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	9	67%	539	60%
Education	2	100%	111	100%
Mathematics	1	100%	28	100%
Anthropology	1	0%	18	0%
Computer Science	2	0%	17	0%
Zoology	1	0%	15	0%
Biology	1	0%	10	0%
Other Sciences	1	0%	9	0%
Language & Literature	1	100%	6	100%
Economics	1	0%	5	0%
Ecology	1	0%	4	0%

# India

India's 196 OA journals published 16,562 articles in 2017, averaging 65 articles per free journal, 131 per APC-charging. Average cost per article: \$416 for APC-charging journals, \$214 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	189	192	187	174	150	132
%Free	66%	65%	64%	62%	59%	58%
Articles	16,562	18,522	16,796	15,716	14,111	11,391
%Free	49%	48%	48%	49%	48%	48%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	5	20%	4,458	5%
Large: 150-599	41	51%	6,280	56%
Med.: 60-149	56	63%	3,457	70%
Small: 20-59	83	76%	2,297	81%
Smallest: 1-19	11	73%	70	76%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	4	1,273	\$2,210,760	\$1,737
\$600-\$1,399	1	54	\$32,400	\$600
\$200-\$599	22	3,663	\$1,003,698	\$274
\$0.20-\$199	41	3,505	\$289,940	\$83
Free	128	8,067		
Total	196	16,562	\$3,536,798	\$214

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	132	67%	12,313	52%
Miscellaneous	29	38%	3,191	23%
Univ/college	18	72%	487	76%
Traditional	8	100%	393	100%
Society/govt	9	78%	178	64%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	14	7.1%	
Grew 25-49.9%	22	11.2%	18.4%
Grew 10-24.99%	19	9.7%	28.1%
Even, ±9.99%	60	30.6%	58.7%
Shrank 10-24.99%	31	15.8%	74.5%
Shrank 25-49.99%	25	12.8%	87.2%
Shrank 50%+	25	12.8%	



**Subjects**

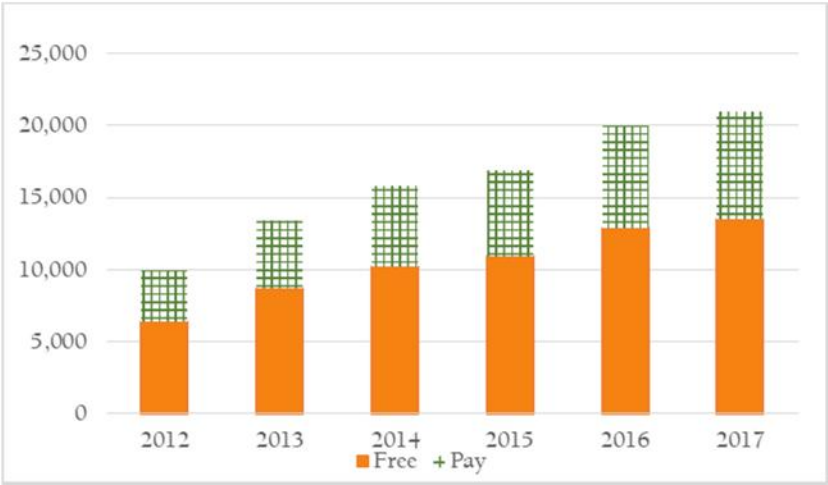
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	148	67%	14,126	49%
Other Sciences	3	0%	659	0%
Zoology	4	50%	567	40%
Biology	6	50%	344	53%
Technology	6	67%	113	100%
Physics	2	100%	87	100%
Earth Sciences	1	100%	86	100%
Computer Science	3	67%	70	100%
Mathematics	2	50%	70	51%
Chemistry	2	50%	65	31%
Law	2	100%	53	100%
Economics	1	100%	44	100%
Library Science	1	100%	39	100%
Miscellany	2	0%	39	0%
Education	2	50%	37	76%
Sociology	2	100%	37	100%
Ecology	2	100%	36	100%
Philosophy	1	0%	33	0%
Agriculture	1	100%	22	100%
Language & Literature	1	100%	19	100%
Arts & Architecture	1	0%	13	0%
Engineering	2	50%	3	0%
Anthropology	1	100%	0	

# Indonesia

Indonesia’s 1,011 OA journals published 21,006 articles in 2017, averaging 20 articles in free journals 26 in APC-charging. Average cost per article \$86 for fee journals, \$31 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	970	927	809	708	606	496
%Free	70%	70%	69%	70%	70%	69%
Articles	21,006	19,995	16,891	15,843	13,373	9,974
%Free	64%	64%	65%	64%	65%	64%



**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	1	0%	224	0%
Large: 150-599	6	50%	1,370	62%
Med.: 60-149	50	52%	2,585	53%
Small: 20-59	494	65%	11,192	62%
Smallest: 1-19	460	79%	5,635	77%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$600-\$1,399	3	0	\$0	
\$200-\$599	11	812	\$250,640	\$309
\$0.20-\$199	286	6,718	\$399,188	\$59
Free	711	13,476	\$0	
Total	1,011	21,006	\$649,828	\$31

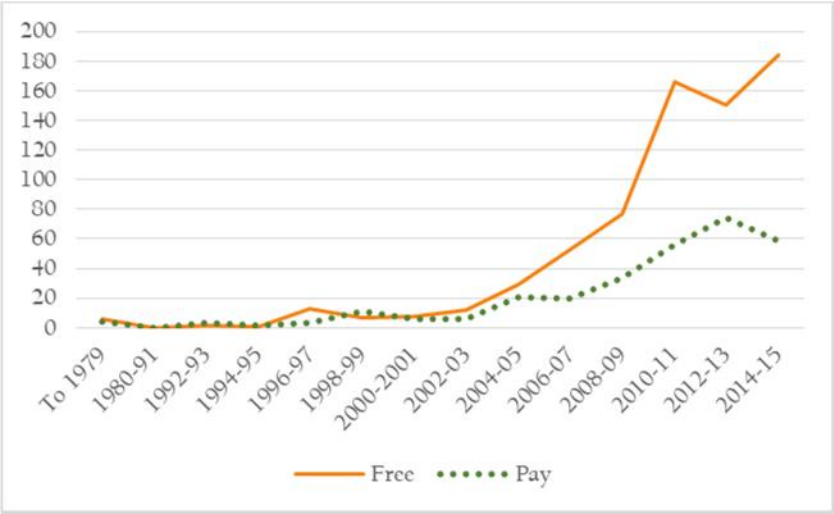
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	942	70%	19,484	64%
Miscellaneous	42	71%	1,021	62%
Society/govt	26	65%	484	63%
Open Access	1	0%	17	0%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	162	16.0%	
Grew 25-49.9%	59	5.8%	21.9%
Grew 10-24.99%	106	10.5%	32.3%
Even, $\pm$ 9.99%	409	40.5%	72.8%
Shrank 10-24.99%	96	9.5%	82.3%
Shrank 25-49.99%	90	8.9%	91.2%
Shrank 50%+	89	8.8%	

Starting Date



## Subjects

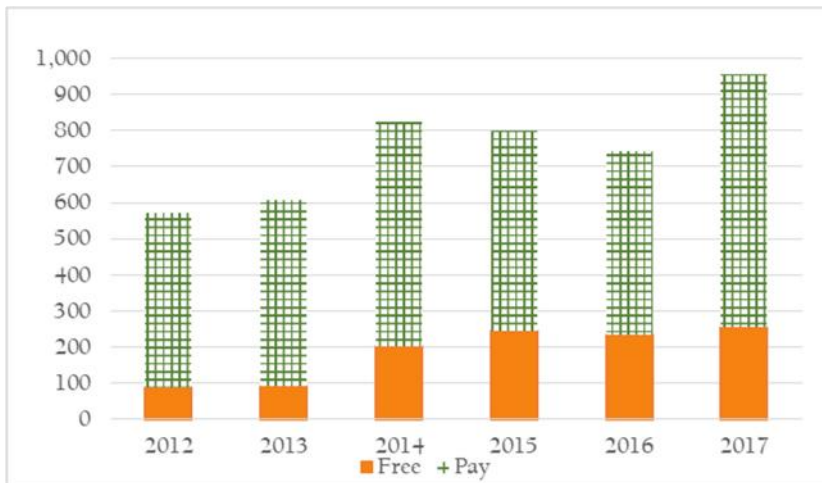
Subject	Journals	%Free	Articles	%Free
Education	158	71%	3,604	65%
Medicine	84	63%	2,311	59%
Economics	125	78%	2,244	74%
Language & Literature	64	75%	1,138	75%
Engineering	41	63%	1,128	41%
Technology	20	80%	1,085	90%
Computer Science	54	65%	964	67%
Religion	66	91%	931	87%
Agriculture	52	50%	913	41%
Law	44	80%	734	69%
Ecology	16	63%	628	35%
Mathematics	32	69%	592	69%
Biology	22	73%	566	61%
Zoology	23	26%	513	25%
Sociology	26	65%	420	51%
Chemistry	17	65%	401	52%
Anthropology	21	71%	380	70%
Other Sciences	18	78%	341	74%
Media & Communications	21	81%	339	79%
Earth Sciences	17	53%	336	51%
Miscellany	15	73%	278	76%
Physics	16	63%	270	62%
Arts & Architecture	18	89%	267	86%
Political Science	15	60%	249	47%
Psychology	13	85%	202	87%
Library Science	6	83%	94	79%
History	6	50%	78	32%
Philosophy	1	100%	0	

# Japan

Seventeen journals, 955 articles in 2017. Average 37 articles per free journal, 78 per APC-charging. Average article cost \$1,501 for APC-charging journals, \$1,090 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	16	17	17	16	14	12
%Free	44%	41%	41%	44%	43%	42%
Articles	955	744	799	826	606	570
%Free	27%	32%	31%	25%	15%	16%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	0%	283	0%
Med.: 60-149	4	25%	396	24%
Small: 20-59	9	56%	256	59%
Smallest: 1-19	2	50%	20	40%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	170	\$611,880	\$3,599
\$600-\$1,399	5	336	\$380,460	\$1,132
\$200-\$599	3	193	\$56,639	\$293
Free	7	256	\$0	
Total	17	955	\$1,048,979	\$1,098

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	4	25%	390	25%
Univ/college	3	67%	183	44%
Society/govt	6	33%	300	6%
Miscellaneous	4	50%	82	74%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	23.5%	
Grew 10-24.99%	3	17.6%	41.2%
Even, $\pm 9.99\%$	6	35.3%	76.5%
Shrank 10-24.99%	2	11.8%	88.2%
Shrank 25-49.99%	1	5.9%	94.1%
Shrank 50%+	1	5.9%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	5	20%	244	3%
Technology	2	50%	213	46%
Ecology	1	0%	160	0%
Education	3	67%	123	56%
Engineering	1	0%	103	0%
Anthropology	1	100%	50	100%
Biology	1	0%	30	0%
Religion	1	100%	22	100%
Earth Sciences	1	100%	10	100%
Other Sciences	1	0%	0	

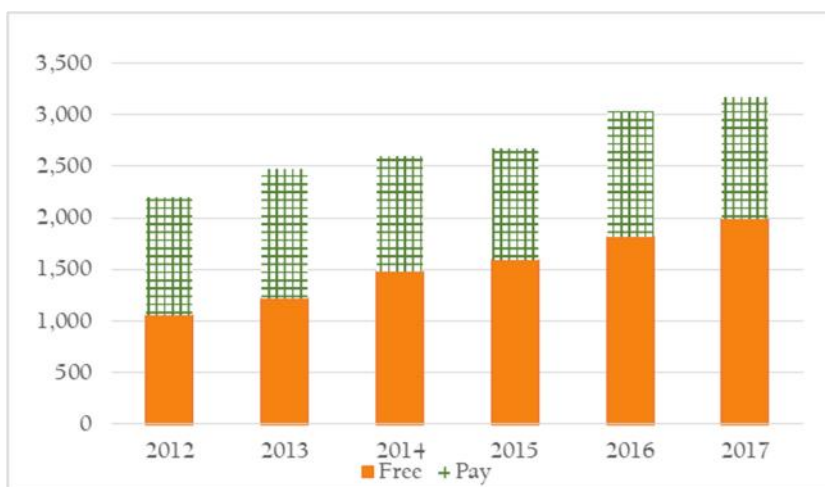


# Korea, Republic of

Korea's 59 OA journals published 3,173 articles in 2017—averaging 50 per no-fee journal, 62 per APC-charging. Average cost per article \$564 across APC-charging, \$210 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	59	59	58	53	45	42
%Free	68%	68%	67%	70%	64%	64%
Articles	3,173	3,030	2,673	2,605	2,478	2,206
%Free	63%	60%	59%	57%	49%	48%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	3	33%	568	37%
Med.: 60-149	18	67%	1,401	68%
Small: 20-59	34	68%	1,155	68%
Smallest: 1-19	4	100%	49	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	41	\$72,980	\$1,780
\$600-\$1,399	5	304	\$251,800	\$828
\$200-\$599	11	718	\$327,742	\$456
\$0.20-\$199	2	120	\$14,800	\$123
Free	40	1,990		
Total	59	3,173	\$667,322	\$210

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Society/govt	30	60%	1,775	49%
Traditional	14	86%	868	90%
Miscellaneous	9	56%	373	58%
Univ/college	6	83%	157	82%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	9	15.3%	
Grew 25-49.9%	3	5.1%	20.3%
Grew 10-24.99%	5	8.5%	28.8%
Even, $\pm$ 9.99%	27	45.8%	74.6%
Shrank 10-24.99%	12	20.3%	94.9%
Shrank 25-49.99%	3	5.1%	

Starting Date



Subjects

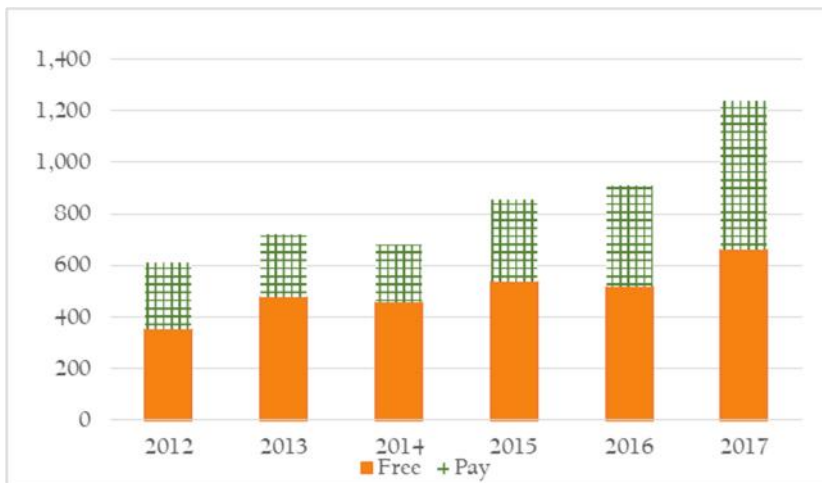
Subject	Journals	%Free	Articles	%Free
Medicine	26	73%	1,606	70%
Engineering	4	100%	333	100%
Zoology	2	0%	261	0%
Agriculture	4	50%	234	52%
Economics	6	83%	194	73%
Education	4	75%	138	80%
Biology	1	0%	99	0%
Earth Sciences	2	50%	65	46%
Language & Literature	2	100%	61	100%
Library Science	2	100%	40	100%
Media & Communications	1	0%	40	0%
Computer Science	2	0%	38	0%
Physics	1	0%	35	0%
History	1	100%	16	100%
Chemistry	1	100%	13	100%

# Malaysia

Malaysia's 32 OA journals published 1,241 articles in 2017, averaging 29 articles per no-fee journal and 65 articles per APC-charging. Average cost per article: \$212 for APC-charging, \$100 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	32	32	31	29	27	25
%Free	72%	72%	74%	76%	74%	72%
Articles	1,241	911	853	681	722	613
%Free	53%	57%	63%	67%	66%	57%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	0%	240	0%
Med.: 60-149	5	60%	376	53%
Small: 20-59	18	72%	516	70%
Smallest: 1-19	8	88%	109	88%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	7	520	\$117,834	\$227
\$0.20-\$199	2	62	\$5,820	\$94
Free	23	659		
Total	32	1,241	\$123,654	\$100

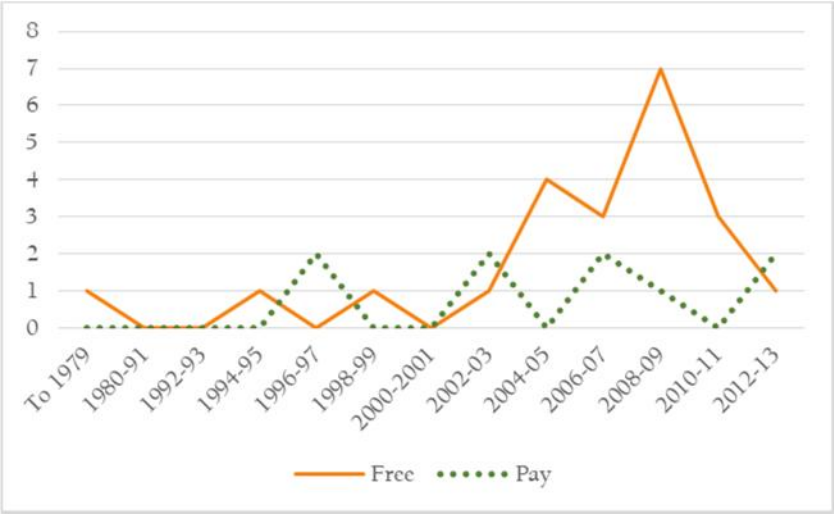
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	24	71%	1,074	49%
Miscellaneous	5	60%	123	70%
Society/govt	3	100%	44	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	9	28.1%	
Grew 25-49.9%	3	9.4%	37.5%
Grew 10-24.99%	8	25.0%	62.5%
Even, $\pm$ 9.99%	9	28.1%	90.6%
Shrank 10-24.99%	1	3.1%	93.8%
Shrank 25-49.99%	1	3.1%	96.9%
Shrank 50%+	1	3.1%	

Starting Date



Subjects

Subject	Journals	%Free	Articles	%Free
Engineering	7	57%	472	38%
Medicine	6	67%	290	53%
Language & Literature	3	33%	128	8%
Religion	3	33%	84	57%
Education	4	100%	71	100%
Miscellany	1	100%	53	100%
Ecology	2	100%	45	100%
Anthropology	1	100%	22	100%
Zoology	1	100%	19	100%
History	1	100%	18	100%
Sociology	1	100%	16	100%
Physics	1	100%	12	100%
Computer Science	1	100%	11	100%

# Nepal

Fifteen no-fee journals with 428 articles in 2017, an average of 29 articles per journal.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	15	15	14	12	11	10
Articles	428	415	337	330	404	305

## Article Volume

	Journals	Articles
Med.: 60-149	2	120
Small: 20-59	9	268
Smallest: 1-19	4	40

## Publisher Category

Category	Journals	Articles
Society/govt	7	244
Univ/college	5	141
Miscellaneous	3	43

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	3	20.0%	
Grew 25-49.9%	3	20.0%	40.0%
Grew 10-24.99%	1	6.7%	46.7%
Even, $\pm 9.99\%$	1	6.7%	53.3%
Shrank 25-49.99%	7	46.7%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Medicine	9	354
Ecology	1	22
Other Sciences	1	12
Sociology	1	11
Agriculture	1	10
Education	1	10
Mathematics	1	9

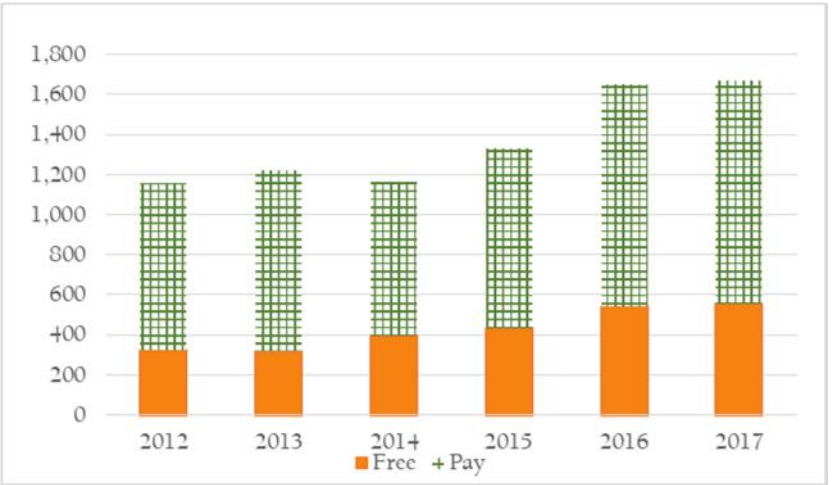


# Pakistan

Pakistan’s 34 OA journals published 1,673 articles in 2017, averaging 25 articles per no-fee journal, 102 per APC-charging. Average cost per article: \$203 across fee journals, \$136 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	33	34	30	27	25	23
%Free	67%	68%	63%	59%	56%	57%
Articles	1,673	1,652	1,330	1,162	1,223	1,155
%Free	33%	33%	32%	34%	26%	28%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	3	0%	638	0%
Med.: 60-149	7	43%	512	26%
Small: 20-59	19	79%	478	79%
Smallest: 1-19	5	100%	45	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	3	527	\$178,816	\$339
\$0.20-\$199	8	592	\$47,935	\$81
Free	23	554	\$0	\$0
Total	34	1,673	\$226,751	\$136

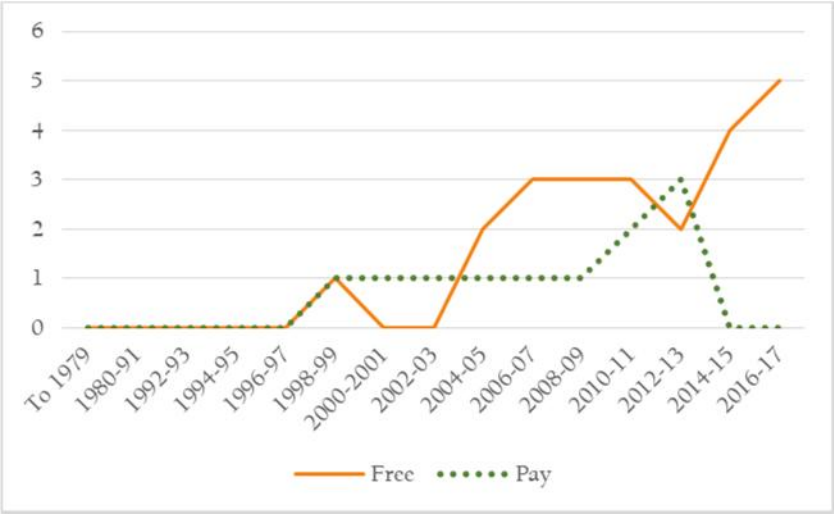
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	19	74%	794	37%
Society/govt	11	64%	683	35%
Miscellaneous	4	50%	196	11%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	6	17.6%	
Grew 25-49.9%	4	11.8%	29.4%
Grew 10-24.99%	6	17.6%	47.1%
Even, $\pm$ 9.99%	5	14.7%	61.8%
Shrank 10-24.99%	3	8.8%	70.6%
Shrank 25-49.99%	3	8.8%	79.4%
Shrank 50%+	7	20.6%	

Starting Date



Subjects

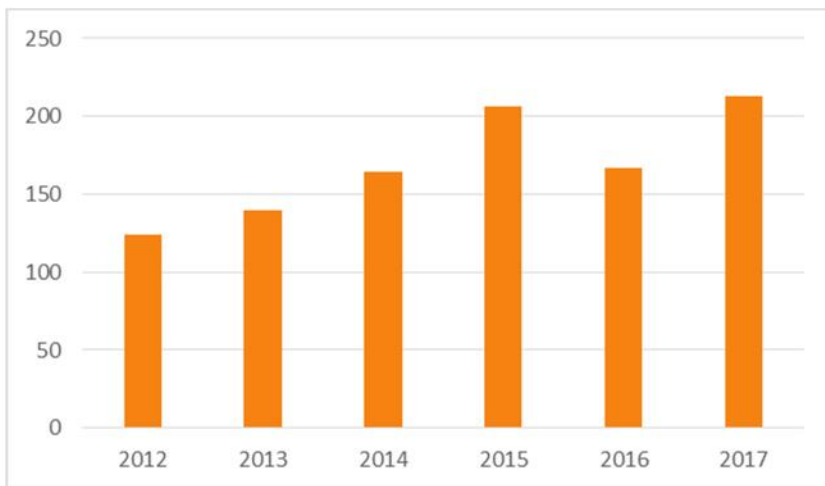
Subject	Journals	%Free	Articles	%Free
Medicine	10	40%	784	12%
Biology	2	50%	197	11%
Zoology	1	0%	104	0%
Engineering	1	0%	102	0%
Economics	4	100%	101	100%
Sociology	2	100%	64	100%
Mathematics	1	100%	58	100%
Agriculture	2	50%	50	10%
Religion	1	100%	41	100%
Education	2	100%	39	100%
Earth Sciences	2	100%	37	100%
Other Sciences	1	100%	36	100%
Ecology	2	100%	27	100%
Chemistry	1	100%	16	100%
Miscellany	1	100%	15	100%
Library Science	1	0%	2	0%

# Sri Lanka

Ten no-fee journals published 213 articles in 2017, an average of 27 articles per journal with 2017 articles.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	8	10	9	9	8	7
Articles	213	167	206	164	140	124



**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Med.: 60-149	1	96
Small: 20-59	3	55
Smallest: 1-19	6	62

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	8	194
Miscellaneous	1	19
Society/govt	1	0

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	20.0%	
Grew 25-49.9%	3	30.0%	50.0%
Grew 10-24.99%	1	10.0%	60.0%
Even, $\pm 9.99\%$	1	10.0%	70.0%
Shrank 50%+	3	30.0%	

**Subjects**

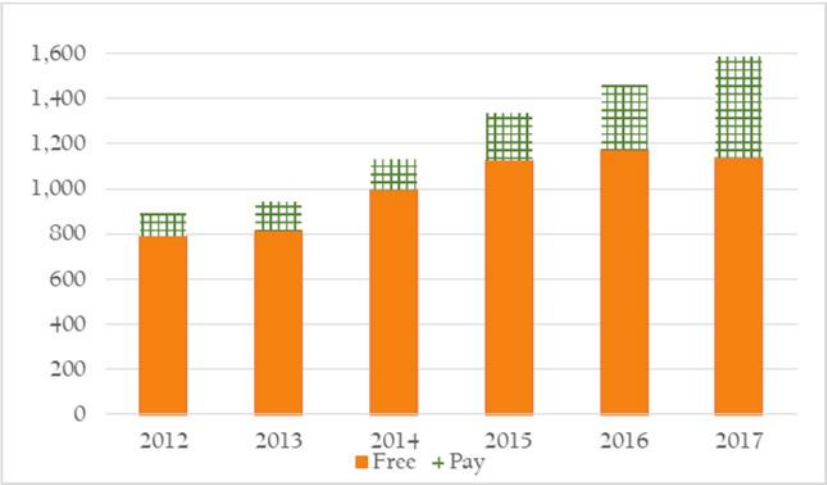
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Medicine	3	128
Agriculture	1	23
Sociology	1	19
Ecology	1	18
Law	1	14
Other Sciences	1	9
Computer Science	2	2

# Taiwan, Province of China

Taiwan’s 26 OA journals published 1,587 articles per year—an average of 57 per free journal and 90 for APC-charging. Cost per article: \$366 for APC-charging journals, \$104 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	25	26	26	24	20	20
%Free	80%	81%	81%	79%	80%	80%
Articles	1,587	1,461	1,337	1,132	945	894
%Free	72%	80%	84%	88%	86%	88%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	4	75%	892	64%
Med.: 60-149	5	80%	407	80%
Small: 20-59	8	88%	205	87%
Smallest: 1-19	9	78%	83	72%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	2	400	\$160,000	\$400
\$0.20-\$199	3	50	\$4,901	\$98
Free	21	1,137	\$0	\$0
Total	26	1,587	\$164,901	\$104

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Traditional	9	100%	944	100%
Univ/college	10	70%	500	28%
Society/govt	3	33%	102	13%
Miscellaneous	4	100%	41	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	3	11.5%	
Grew 25-49.9%	3	11.5%	23.1%
Grew 10-24.99%	4	15.4%	38.5%
Even, $\pm 9.99\%$	8	30.8%	69.2%
Shrank 10-24.99%	3	11.5%	80.8%
Shrank 25-49.99%	1	3.8%	84.6%
Shrank 50%+	4	15.4%	

Starting Date



Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	8	100%	936	100%
Other Sciences	2	50%	332	4%
Earth Sciences	1	0%	82	0%
Education	5	40%	60	17%
Biology	1	100%	53	100%
Political Science	2	100%	47	100%
Library Science	3	100%	35	100%
Engineering	1	100%	13	100%
Media & Communications	1	100%	11	100%
Law	1	100%	10	100%
Language & Literature	1	100%	8	100%

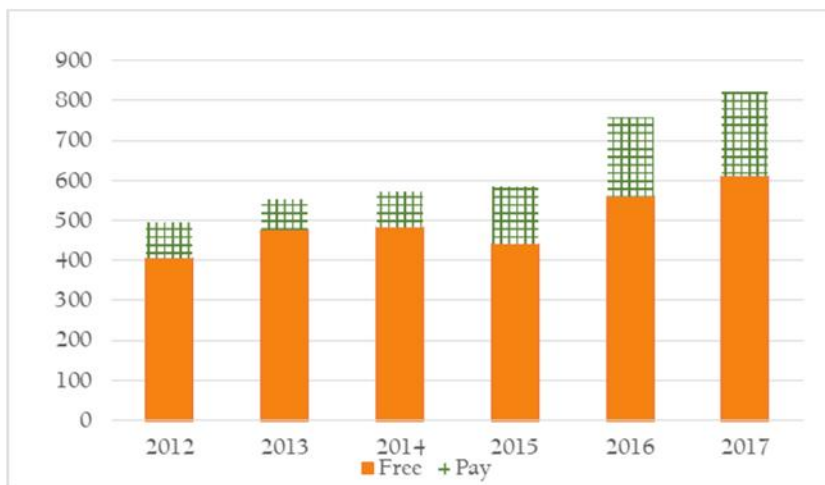


# Thailand

Twenty-one OA journals with 822 articles in 2017; average 42 articles per no-fee journal, 47 per APC-charging. Average cost per article: \$282 across APC-charging journals, \$72 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	18	18	17	17	15	13
%Free	72%	72%	76%	76%	73%	69%
Articles	822	759	585	572	553	495
%Free	74%	74%	76%	84%	86%	82%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	7	71%	576	78%
Small: 20-59	8	63%	204	60%
Smallest: 1-19	6	100%	42	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	1	21	\$22,785	\$1,085
\$200-\$599	3	125	\$28,300	\$226
\$0.20-\$199	1	65	\$8,320	\$128
Free	16	611		
Total	21	822	\$59,405	\$72

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	15	87%	560	83%
Miscellaneous	2	100%	139	100%
Traditional	2	0%	85	0%
Society/govt	2	50%	38	13%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	6	28.6%	
Grew 25-49.9%	1	4.8%	33.3%
Grew 10-24.99%	1	4.8%	38.1%
Even, $\pm$ 9.99%	4	19.0%	57.1%
Shrank 10-24.99%	3	14.3%	71.4%
Shrank 25-49.99%	1	4.8%	76.2%
Shrank 50%+	5	23.8%	

**Subjects**

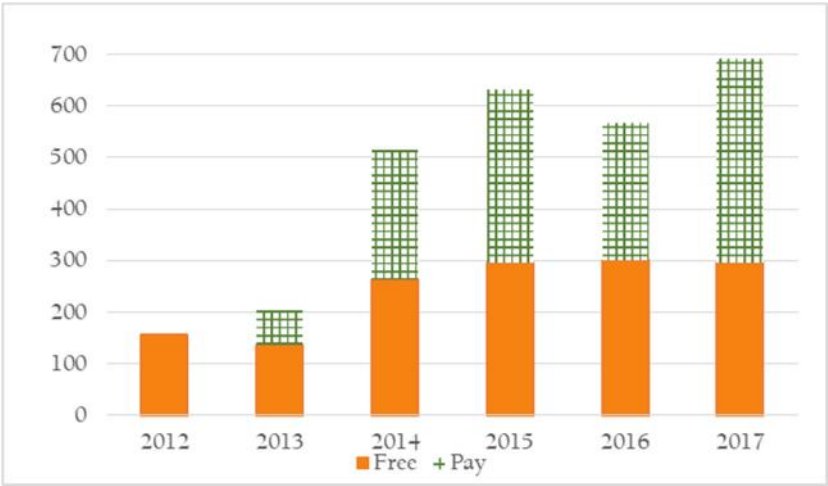
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	3	67%	214	70%
Engineering	3	100%	182	100%
Other Sciences	7	86%	176	84%
Education	2	50%	78	17%
Medicine	1	100%	78	100%
Ecology	2	50%	47	30%
Language & Literature	1	0%	21	0%
Zoology	1	100%	20	100%
Political Science	1	100%	6	100%

# Other Asian Countries

Nineteen journals with 692 articles in 2017; average 25 articles per no-fee journal, 66 per APC-charging. Average cost per article \$698 across APC-charging journals, \$400 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	18	19	16	13	11	9
%Free	67%	68%	69%	77%	82%	100%
Articles	692	568	632	515	203	155
%Free	43%	53%	47%	51%	67%	100%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	0%	147	0%
Med.: 60-149	4	50%	252	45%
Small: 20-59	10	70%	271	59%
Smallest: 1-19	4	100%	22	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	89	\$131,980	\$1,483
\$600-\$1,399	2	117	\$131,040	\$1,120
\$0.20-\$199	2	190	\$13,515	\$71
Free	13	296	\$0	\$0
Total	19	692	\$276,535	\$400

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	10	80%	313	39%
Miscellaneous	3	0%	187	0%
Traditional	4	75%	143	87%
Society/govt	2	100%	49	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	5	26.3%	
Grew 25-49.9%	2	10.5%	36.8%
Grew 10-24.99%	3	15.8%	52.6%
Even, $\pm$ 9.99%	3	15.8%	68.4%
Shrank 10-24.99%	3	15.8%	84.2%
Shrank 25-49.99%	2	10.5%	94.7%
Shrank 50%+	1	5.3%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	7	43%	372	38%
Miscellany	1	0%	147	0%
Engineering	2	50%	43	56%
Philosophy	1	100%	30	100%
Education	1	100%	27	100%
Other Sciences	1	100%	20	100%
Language & Literature	1	100%	17	100%
Economics	1	100%	14	100%
Chemistry	1	100%	11	100%
Biology	1	100%	7	100%
Earth Sciences	1	100%	4	100%
Library Science	1	100%	0	

**Country Summaries****Kyrgyzstan**

Two no fee journals with 38 articles in 2017.

**Mongolia**

Three journals (one with fees) publishing 61 articles in 2017 (most of those articles—70%—in the fee journal).

**Philippines**

Five journals (one with fees) publishing 246 articles in 2017 (60% of the articles in the fee journal).

**Singapore**

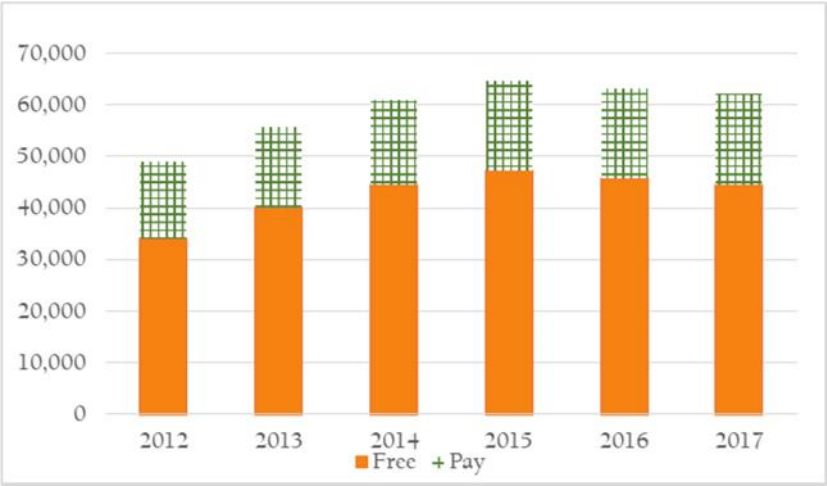
Nine journals (four with fees) publishing 347 articles in 2017 (59% of the articles in the fee-charging journals).

# Eastern Europe

1,622 OA journals published 62,151 articles in 2017, averaging 35 articles per free journal and 66 articles per APC-charging. Average cost per article \$272 across APC-charging journals, \$77 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	1,535	1,578	1,550	1,463	1,315	1,107
%Free	83%	83%	83%	83%	83%	83%
Articles	62,151	63,316	64,611	60,941	55,602	49,076
%Free	72%	72%	73%	73%	72%	69%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	6	50%	2,727	36%
Large: 150-599	85	49%	11,722	46%
Med.: 60-149	396	72%	23,602	72%
Small: 20-59	838	89%	21,461	87%
Smallest: 1-19	297	94%	2,639	93%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	368	\$684,848	\$1,861
\$600-\$1,399	28	2,383	\$1,947,425	\$817
\$200-\$599	60	3,605	\$1,311,281	\$364
\$0.20-\$199	179	11,184	\$828,140	\$74
Free	1,354	44,611		
Total	1,622	62,151	\$4,771,694	\$77

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	868	84%	34,996	72%
Open Access	398	87%	11,912	77%
Miscellaneous	211	73%	8,756	61%
Society/govt	119	82%	5,261	73%
Traditional	26	85%	1,226	78%



Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	180	11.1%	
Grew 25-49.9%	149	9.2%	20.3%
Grew 10-24.99%	196	12.1%	32.4%
Even, ±9.99%	457	28.2%	60.5%
Shrank 10-24.99%	211	13.0%	73.6%
Shrank 25-49.99%	228	14.1%	87.6%
Shrank 50%+	201	12.4%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	212	81%	10,192	72%
Economics	184	72%	6,303	62%
Engineering	96	77%	4,912	62%
Agriculture	87	77%	4,184	64%
Anthropology	87	87%	3,345	58%
Language & Literature	100	90%	3,275	70%
Political Science	63	92%	2,403	88%
Technology	46	91%	2,245	91%
Biology	42	83%	2,178	56%
Computer Science	56	82%	2,036	86%
Earth Sciences	74	91%	1,941	87%
Sociology	53	87%	1,905	72%
Education	53	81%	1,680	76%
Zoology	39	64%	1,680	40%
Ecology	49	82%	1,657	59%
Miscellany	38	79%	1,576	81%
Mathematics	55	87%	1,556	83%
Other Sciences	27	89%	1,291	79%
Chemistry	30	73%	1,101	67%
Arts & Architecture	32	94%	1,070	90%
History	36	92%	1,068	80%
Law	34	94%	1,040	91%
Philosophy	29	97%	879	97%
Psychology	26	92%	784	95%
Religion	20	95%	615	96%
Physics	22	91%	530	75%
Library Science	14	100%	372	100%
Media & Communications	18	94%	333	95%

**Countries**

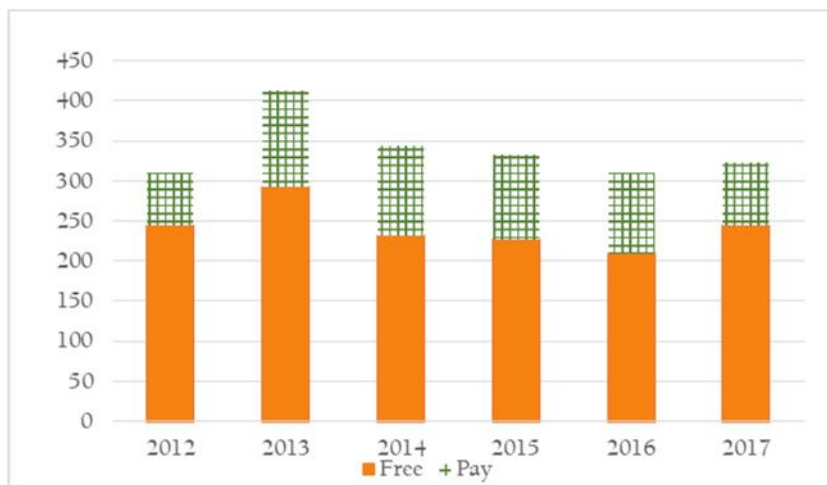
<b>Country</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Albania	2	100%	42	100%
Belarus	6	100%	328	100%
Bosnia and Herzegovina	13	77%	323	76%
Bulgaria	36	53%	1,891	37%
Croatia	85	91%	2,604	75%
Cyprus	4	75%	90	72%
Czech Republic	81	84%	2,624	71%
Estonia	15	100%	244	100%
Georgia	2	100%	126	100%
Hungary	25	92%	684	82%
Kazakhstan	1	0%	13	0%
Latvia	10	80%	387	69%
Lithuania	35	80%	734	70%
Macedonia, the Former Yugoslav Republic of	8	75%	354	34%
Moldova, Republic of	23	65%	875	62%
Montenegro	6	67%	287	70%
Poland	463	87%	16,485	74%
Romania	280	81%	8,495	69%
Russian Federation	194	89%	12,229	83%
Serbia	126	90%	4,005	73%
Slovakia	38	76%	1,020	69%
Slovenia	49	96%	1,356	87%
Turkmenistan	1	100%	10	100%
Ukraine	119	61%	6,945	55%

# Bosnia and Herzegovina

Thirteen OA journals, 323 articles in 2017. Average 25 articles per no-fee journal, 26 for APC-charging. Average cost per article \$460 across APC-charging journals, \$113 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	13	13	13	12	11	10
%Free	77%	77%	77%	75%	82%	80%
Articles	323	310	332	344	413	310
%Free	76%	68%	68%	67%	71%	79%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	3	67%	98	79%
Small: 20-59	8	75%	211	73%
Smallest: 1-19	2	100%	14	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	71	\$36,097	\$508
\$0.20-\$199	1	7	\$434	\$62
Free	10	245		
Total	13	323	\$36,531	\$113

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	8	88%	191	96%
Society/govt	3	33%	101	30%
Open Access	1	100%	22	100%
Miscellaneous	1	100%	9	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	15.4%	
Grew 25-49.9%	1	7.7%	23.1%
Grew 10-24.99%	3	23.1%	46.2%
Even, $\pm$ 9.99%	2	15.4%	61.5%
Shrank 10-24.99%	1	7.7%	69.2%
Shrank 25-49.99%	1	7.7%	76.9%
Shrank 50%+	3	23.1%	

**Subjects**

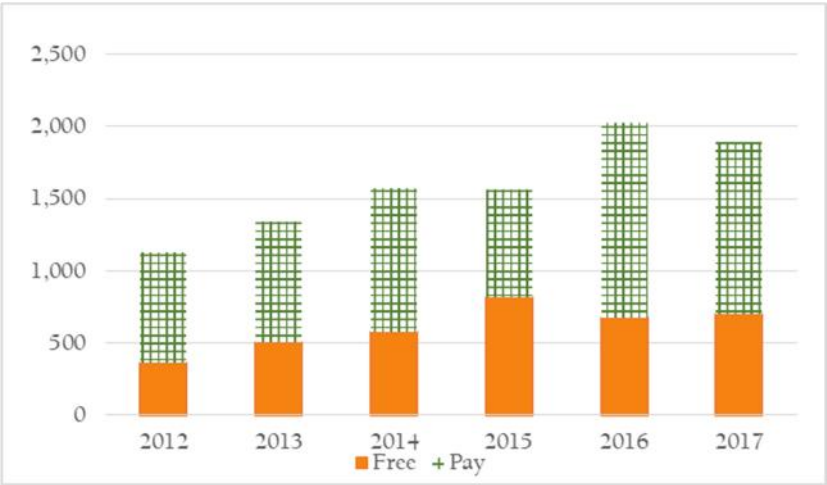
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	6	50%	160	51%
Engineering	2	100%	61	100%
Language & Literature	1	100%	52	100%
Economics	1	100%	22	100%
Anthropology	1	100%	14	100%
Earth Sciences	1	100%	9	100%
Miscellany	1	100%	5	100%

# Bulgaria

Bulgaria’s 36 OA journals published 1,091 articles in 2017; average 37 articles per no-fee journal, 70 per APC-charging. Average article cost \$510 for APC-charging journals, \$326 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	36	35	33	28	24	22
%Free	53%	54%	55%	54%	58%	59%
Articles	1,891	2,022	1,565	1,569	1,344	1,127
%Free	37%	33%	52%	37%	37%	32%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	50%	631	24%
Med.: 60-149	8	38%	556	34%
Small: 20-59	21	62%	646	53%
Smallest: 1-19	5	40%	58	41%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	5	686	\$463,736	\$676
\$200-\$599	7	308	\$125,606	\$408
\$0.20-\$199	5	196	\$26,518	\$135
Free	19	701	\$0	\$0
Total	36	1,891	\$615,860	\$326

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	13	8%	1,014	2%
Univ/college	12	92%	537	97%
Society/govt	4	50%	206	34%
Miscellaneous	7	71%	134	66%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	7	19.4%	
Grew 25-49.9%	1	2.8%	22.2%
Grew 10-24.99%	5	13.9%	36.1%
Even, $\pm 9.99\%$	9	25.0%	61.1%
Shrank 10-24.99%	4	11.1%	72.2%
Shrank 25-49.99%	7	19.4%	91.7%
Shrank 50%+	3	8.3%	



## Starting Date



## Subjects

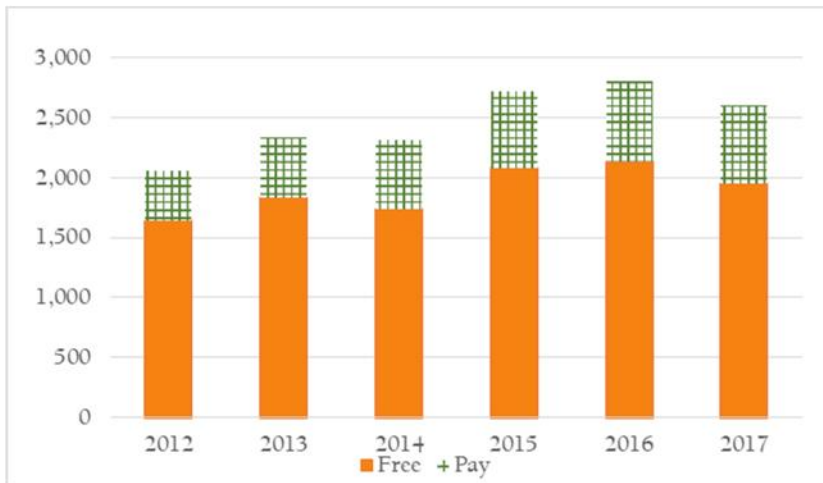
Subject	Journals	%Free	Articles	%Free
Zoology	8	25%	672	9%
Other Sciences	2	50%	224	67%
Biology	5	60%	199	35%
Agriculture	3	33%	196	34%
Medicine	3	0%	150	0%
Miscellany	3	67%	126	92%
Ecology	3	67%	92	46%
Education	2	100%	63	100%
Technology	1	100%	44	100%
Mathematics	1	0%	36	0%
Economics	1	100%	29	100%
Computer Science	1	100%	22	100%
Anthropology	1	100%	20	100%
Philosophy	1	100%	12	100%
Physics	1	100%	6	100%

# Croatia

85 OA journals with 2,604 articles in 2017; average 27 articles per no-fee journal, 81 per fee-charging. Average cost per article \$524 across APC-charging journals, \$131 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	81	83	82	76	75	68
%Free	90%	90%	90%	89%	89%	90%
Articles	2,604	2,807	2,719	2,312	2,336	2,053
%Free	75%	76%	76%	75%	78%	80%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	0%	441	0%
Med.: 60-149	15	87%	661	83%
Small: 20-59	53	92%	1,384	93%
Smallest: 1-19	15	100%	118	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	2	441	\$294,924	\$669
\$200-\$599	3	91	\$35,256	\$387
\$0.20-\$199	3	118	\$10,538	\$89
Free	77	1,954	\$0	\$0
Total	85	2,604	\$340,718	\$131

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	53	92%	1,675	76%
Society/govt	19	84%	609	67%
Miscellaneous	11	91%	263	84%
Open Access	2	100%	57	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	11	12.9%	
Grew 25-49.9%	7	8.2%	21.2%
Grew 10-24.99%	9	10.6%	31.8%
Even, $\pm$ 9.99%	20	23.5%	55.3%
Shrank 10-24.99%	11	12.9%	68.2%
Shrank 25-49.99%	18	21.2%	89.4%
Shrank 50%+	9	10.6%	

Starting Date



## Subjects

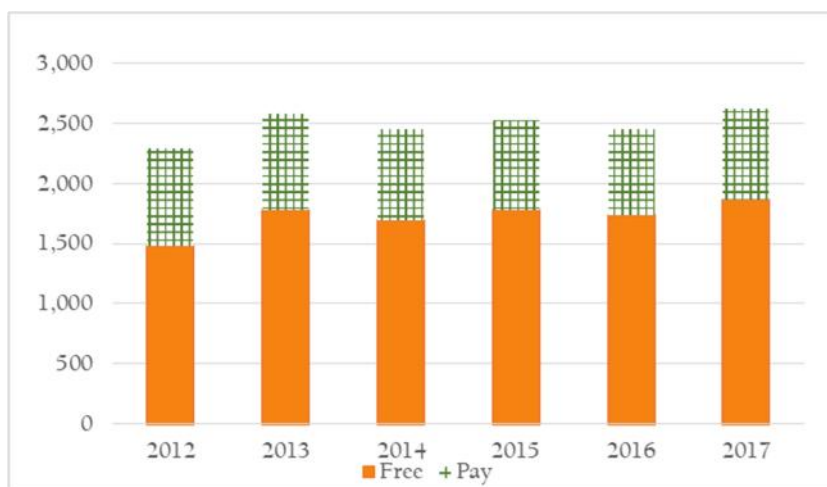
Subject	Journals	%Free	Articles	%Free
Engineering	6	33%	607	9%
Medicine	9	100%	282	100%
Economics	10	100%	245	100%
Chemistry	4	100%	159	100%
Agriculture	4	100%	138	100%
Language & Literature	5	100%	135	100%
Earth Sciences	5	80%	123	87%
Anthropology	6	100%	87	100%
Sociology	3	100%	81	100%
Arts & Architecture	5	100%	77	100%
Ecology	2	50%	68	38%
History	3	100%	67	100%
Law	3	100%	67	100%
Biology	1	100%	60	100%
Religion	1	100%	55	100%
Education	2	50%	49	57%
Media & Communications	2	100%	49	100%
Computer Science	2	50%	42	55%
Technology	1	100%	40	100%
Philosophy	1	100%	37	100%
Zoology	2	100%	32	100%
Psychology	1	100%	30	100%
Political Science	2	100%	26	100%
Library Science	2	100%	22	100%
Miscellany	2	100%	17	100%
Mathematics	1	100%	9	100%

# Czech Republic

Eighty-one OA journals with 2,624 articles in 2017: average 28 articles per no-fee journal, 59 per journal with APCs. Average cost per article: \$406 for APC-charging journals, \$118 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	79	80	78	76	69	60
%Free	84%	84%	83%	83%	81%	78%
Articles	2,624	2,449	2,524	2,453	2,575	2,296
%Free	71%	71%	70%	69%	69%	65%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	3	67%	418	66%
Med.: 60-149	10	40%	662	40%
Small: 20-59	53	89%	1,376	84%
Smallest: 1-19	15	100%	168	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	12	730	\$306,228	\$419
\$0.20-\$199	1	33	\$3,729	\$113
Free	68	1,861		
Total	81	2,624	\$309,957	\$118

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	61	80%	2,094	70%
Miscellaneous	6	83%	229	37%
Open Access	10	100%	182	100%
Society/govt	4	100%	119	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	10	12.3%	
Grew 25-49.9%	7	8.6%	21.0%
Grew 10-24.99%	10	12.3%	33.3%
Even, $\pm$ 9.99%	31	38.3%	71.6%
Shrank 10-24.99%	10	12.3%	84.0%
Shrank 25-49.99%	9	11.1%	95.1%
Shrank 50%+	4	4.9%	

Starting Date





**Subjects**

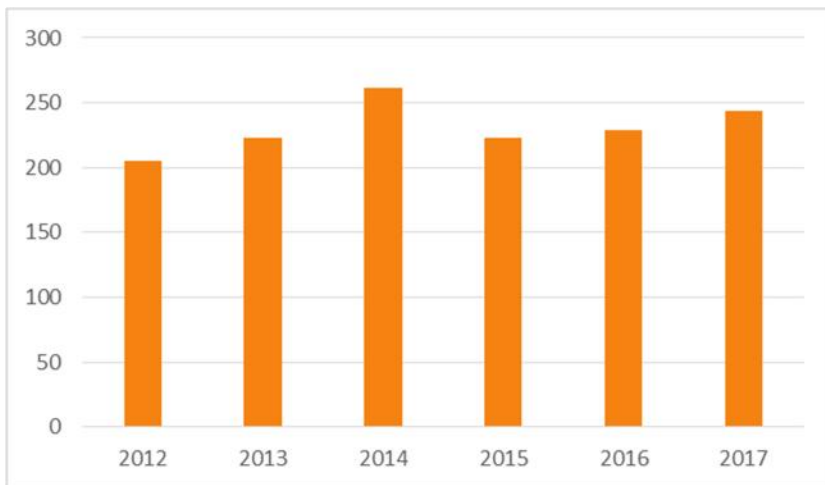
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Agriculture	10	40%	668	55%
Engineering	7	86%	456	68%
Education	7	86%	209	84%
Zoology	3	0%	208	0%
Language & Literature	6	100%	192	100%
Economics	7	100%	147	100%
Anthropology	7	100%	84	100%
Earth Sciences	4	75%	76	61%
Medicine	4	100%	76	100%
Mathematics	3	100%	74	100%
Political Science	5	100%	66	100%
Computer Science	3	100%	58	100%
Psychology	3	100%	56	100%
Chemistry	1	0%	50	0%
Technology	3	100%	42	100%
History	1	100%	41	100%
Ecology	2	100%	30	100%
Media & Communications	1	100%	27	100%
Religion	1	100%	27	100%
Biology	1	100%	23	100%
Philosophy	1	100%	14	100%
Physics	1	100%	0	

# Estonia

Seventeen journals, none with fees; 244 articles in 2017; an average of 17 articles per journal with 2017 articles.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	14	14	13	14	14	12
Articles	244	229	223	261	223	205



**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Small: 20-59	10	183
Smallest: 1-19	5	61

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Univ/college	7	148
Miscellaneous	3	40
Society/govt	3	37
Open Access	2	19

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	13.3%	
Grew 25-49.9%	2	13.3%	26.7%
Grew 10-24.99%	1	6.7%	33.3%
Even, $\pm 9.99\%$	4	26.7%	60.0%
Shrank 10-24.99%	2	13.3%	73.3%
Shrank 25-49.99%	2	13.3%	86.7%
Shrank 50%+	2	13.3%	

**Subjects**

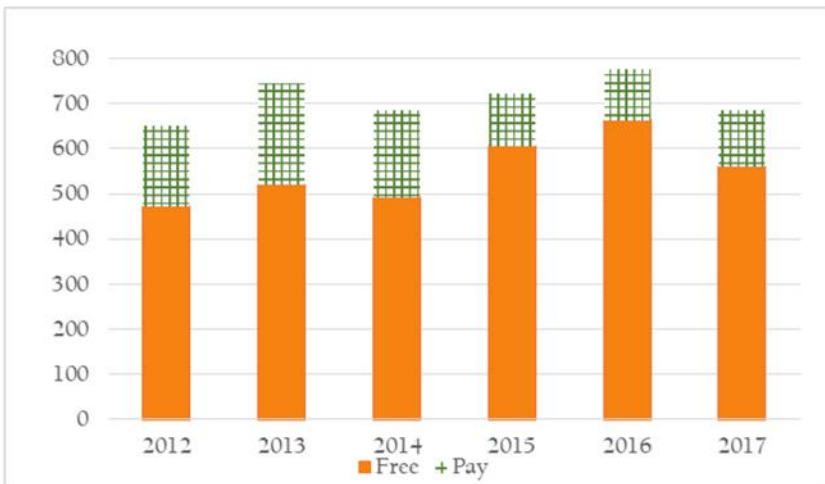
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Language & Literature	2	48
Education	2	35
Law	1	28
History	2	23
Earth Sciences	2	21
Economics	1	19
Anthropology	1	18
Miscellany	1	18
Philosophy	1	13
Political Science	1	13
Agriculture	1	8

# Hungary

Twenty-five OA journals; 684 articles in 2017; average 24 articles in no-fee journals, 63 in APC-charging. Average cost per article \$359 across APC-charging journals, \$66 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	21	25	25	22	21	18
%Free	90%	92%	92%	91%	90%	89%
Articles	684	775	721	685	746	650
%Free	82%	86%	84%	72%	70%	73%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	0%	87	0%
Med.: 60-149	2	100%	196	100%
Small: 20-59	15	93%	334	89%
Smallest: 1-19	7	100%	67	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$600-\$1.399	1	38	\$34,276	\$902
\$0.20-\$199	1	87	\$10,614	\$122
Free	23	559		
Total	25	684	\$44,890	\$66

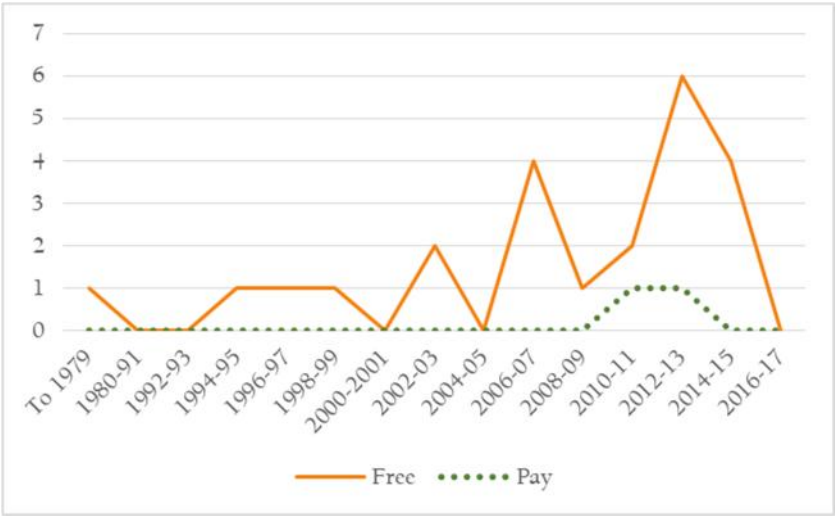
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	11	100%	348	100%
Miscellaneous	5	60%	239	48%
Society/govt	5	100%	74	100%
Open Access	4	100%	23	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	4	16.0%	
Grew 10-24.99%	3	12.0%	28.0%
Even, $\pm$ 9.99%	7	28.0%	56.0%
Shrank 10-24.99%	4	16.0%	72.0%
Shrank 25-49.99%	2	8.0%	80.0%
Shrank 50%+	5	20.0%	

Starting Date



Subjects

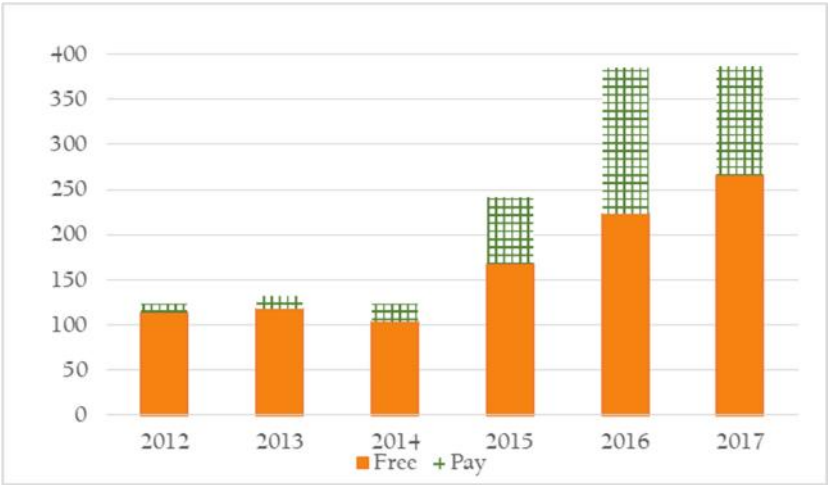
Subject	Journals	%Free	Articles	%Free
Mathematics	1	100%	100	100%
Technology	1	100%	96	100%
History	2	100%	88	100%
Chemistry	2	50%	87	0%
Medicine	2	50%	52	27%
Ecology	4	100%	45	100%
Earth Sciences	1	100%	41	100%
Sociology	1	100%	40	100%
Agriculture	1	100%	26	100%
Engineering	1	100%	24	100%
Zoology	1	100%	23	100%
Economics	1	100%	17	100%
Language & Literature	3	100%	17	100%
Media & Communications	1	100%	17	100%
Anthropology	2	100%	11	100%
Education	1	100%	0	

# Latvia

Latvia’s ten OA journals published 387 articles in 2017, an average of 33 articles per no-fee journal, 61 per APC-charging. Average article cost: \$702 across APC-charging journals, \$219 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	10	10	10	7	6	6
%Free	80%	80%	80%	86%	83%	83%
Articles	387	385	241	123	132	123
%Free	69%	58%	70%	84%	89%	93%





**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	3	33%	208	42%
Small: 20-59	6	100%	170	100%
Smallest: 1-19	1	100%	9	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	2	121	\$84,890	\$702
Free	8	266		
Total	10	387	\$84,890	\$219

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	6	100%	212	100%
Miscellaneous	1	0%	94	0%
Univ/college	3	67%	81	67%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	20.0%	
Even, $\pm 9.99\%$	6	60.0%	80.0%
Shrank 25-49.99%	1	10.0%	90.0%
Shrank 50%+	1	10.0%	

**Subjects**

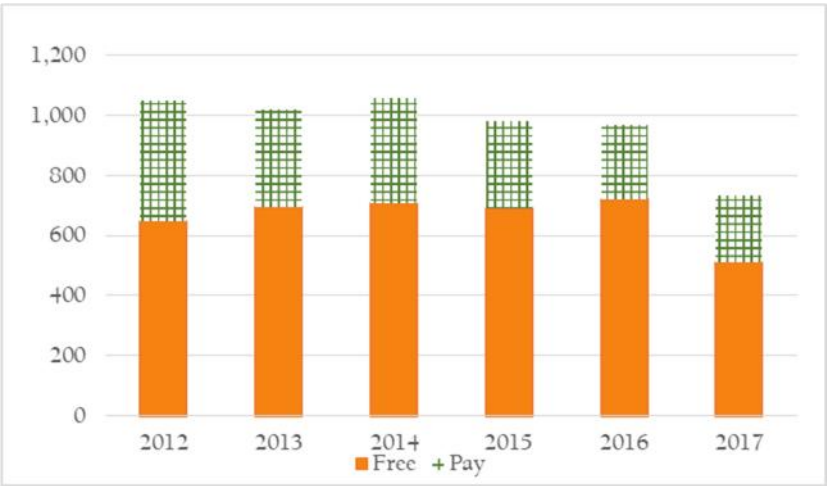
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Economics	2	50%	116	19%
Other Sciences	1	100%	87	100%
Computer Science	2	50%	51	47%
Physics	1	100%	42	100%
Sociology	1	100%	32	100%
Biology	1	100%	30	100%
Education	1	100%	20	100%
Engineering	1	100%	9	100%

# Lithuania

Lithuania’s 35 OA journals had 734 articles in 2017, averaging 20 articles per no-fee journal and 32 per APC-charging. Average article cost \$360 across APC-charging journals, \$109 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	33	34	34	30	26	23
%Free	79%	79%	82%	77%	77%	78%
Articles	734	966	980	1,057	1,019	1,051
%Free	70%	75%	70%	67%	68%	62%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	0%	48	0%
Med.: 60-149	7	71%	261	58%
Small: 20-59	18	78%	352	82%
Smallest: 1-19	9	100%	73	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	1	70	\$43,400	\$620
\$200-\$599	2	86	\$26,364	\$307
\$0.20-\$199	4	66	\$10,213	\$155
Free	28	512	\$0	\$0
Total	35	734	\$79,977	\$109

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	27	78%	572	70%
Miscellaneous	5	80%	111	57%
Traditional	1	100%	48	100%
Open Access	2	100%	3	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	5.7%	
Grew 25-49.9%	3	8.6%	14.3%
Grew 10-24.99%	4	11.4%	25.7%
Even, $\pm$ 9.99%	6	17.1%	42.9%
Shrank 10-24.99%	4	11.4%	54.3%
Shrank 25-49.99%	6	17.1%	71.4%
Shrank 50%+	10	28.6%	

## Starting Date



## Subjects

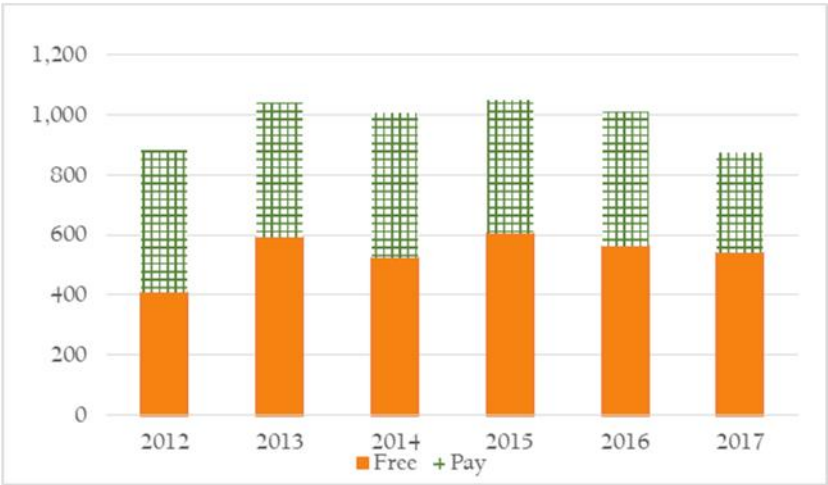
Subject	Journals	%Free	Articles	%Free
Language & Literature	5	100%	97	100%
Economics	3	0%	93	0%
Sociology	7	86%	78	91%
Medicine	3	100%	75	100%
Other Sciences	1	100%	74	100%
Engineering	1	0%	70	0%
Education	3	67%	64	25%
Law	2	100%	43	100%
Library Science	1	100%	29	100%
Political Science	1	100%	22	100%
Religion	1	100%	21	100%
Media & Communications	1	100%	18	100%
Earth Sciences	1	100%	13	100%
Mathematics	1	100%	12	100%
Ecology	1	100%	9	100%
Miscellany	1	100%	6	100%
Psychology	1	100%	6	100%
Computer Science	1	0%	4	0%

# Moldova, Republic of

In all, 23 OA journals and 875 2017 articles; average 39 articles per no-fee journal, 42 per APC-charging. Average article cost \$36 across APC-charging journals, \$14 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	22	23	22	21	20	17
%Free	64%	65%	64%	62%	65%	59%
Articles	875	1,011	1,051	1,005	1,040	883
%Free	62%	56%	57%	52%	57%	46%



Article Volume

	Journals	%Free	Articles	%Free
Med.: 60-149	12	50%	621	57%
Small: 20-59	10	80%	241	73%
Smallest: 1-19	1	100%	13	100%

APC Levels and Revenue

	Journals	Articles	Revenue	\$/article
\$0.20-\$199	8	336	\$12,258	\$36
Free	15	539		
Total	23	875	\$12,258	\$14

Publisher Category

Category	Journals	%Free	Articles	%Free
Univ/college	17	53%	582	42%
Society/govt	6	100%	293	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	1	4.3%	
Grew 25-49.9%	1	4.3%	8.7%
Grew 10-24.99%	2	8.7%	17.4%
Even, $\pm 9.99\%$	8	34.8%	52.2%
Shrank 10-24.99%	1	4.3%	56.5%
Shrank 25-49.99%	3	13.0%	69.6%
Shrank 50%+	7	30.4%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Arts & Architecture	2	100%	165	100%
Economics	4	25%	126	22%
History	3	67%	116	83%
Political Science	1	0%	88	0%
Anthropology	3	100%	86	100%
Sociology	2	50%	70	19%
Psychology	2	100%	63	100%
Chemistry	2	50%	62	35%
Technology	1	100%	47	100%
Education	1	0%	33	0%
Computer Science	1	100%	19	100%
Language & Literature	1	100%	0	

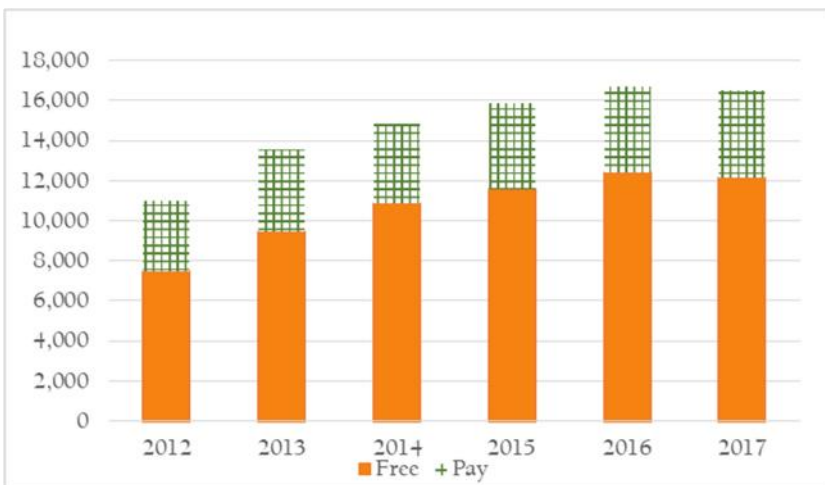


# Poland

In all, 463 journals and 16,485 articles in 2017. Average 33 articles per no-fee journal, 72 for APC-charging. Average cost per article \$381 across APC-charging journals, \$100 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	430	441	437	413	362	276
%Free	86%	86%	86%	86%	85%	84%
Articles	16,485	16,680	15,889	14,863	13,541	10,973
%Free	74%	75%	73%	73%	70%	68%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	826	0%
Large: 150-599	18	39%	2,679	56%
Med.: 60-149	89	75%	5,560	73%
Small: 20-59	248	90%	6,608	87%
Smallest: 1-19	107	99%	812	99%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	17	1,027	\$1,026,199	\$999
\$200-\$599	17	1,133	\$395,571	\$349
\$0.20-\$199	26	2,179	\$232,194	\$107
Free	403	12,146	\$0	\$0
Total	463	16,485	\$1,653,964	\$100

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	299	92%	8,602	84%
Univ/college	105	84%	4,744	62%
Traditional	20	85%	1,039	76%
Society/govt	16	56%	1,254	53%
Miscellaneous	23	65%	846	63%

### Starting Date



### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	52	11.2%	
Grew 25-49.9%	38	8.2%	19.4%
Grew 10-24.99%	59	12.7%	32.2%
Even, ±9.99%	144	31.1%	63.3%
Shrank 10-24.99%	52	11.2%	74.5%
Shrank 25-49.99%	58	12.5%	87.0%
Shrank 50%+	60	13.0%	

**Subjects**

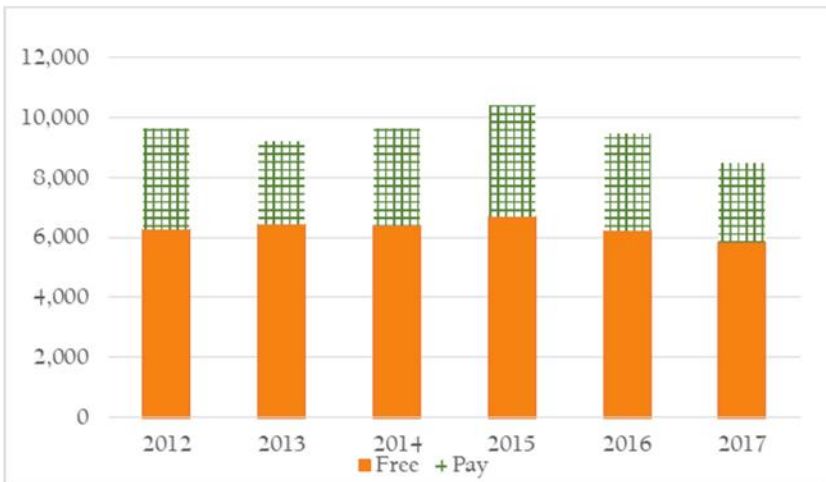
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	74	73%	3,447	61%
Anthropology	20	80%	1,385	32%
Engineering	33	88%	1,317	87%
Economics	39	90%	1,111	82%
Technology	16	94%	1,030	86%
Ecology	22	86%	909	58%
Agriculture	29	86%	877	74%
Mathematics	25	84%	747	75%
Computer Science	12	92%	640	90%
Earth Sciences	24	88%	608	81%
Sociology	10	90%	529	83%
Language & Literature	23	96%	526	93%
Political Science	14	100%	396	100%
Zoology	14	86%	373	78%
Religion	12	100%	337	100%
Biology	18	83%	313	66%
Physics	10	90%	309	64%
Philosophy	10	100%	288	100%
Chemistry	10	90%	241	80%
Library Science	7	100%	197	100%
Miscellany	5	80%	188	77%
Psychology	5	80%	174	82%
Education	5	100%	160	100%
Law	8	88%	131	76%
Media & Communications	7	100%	127	100%
History	5	100%	112	100%
Arts & Architecture	4	100%	13	100%
Other Sciences	2	100%	0	

# Romania

Romania's 280 OA journals had 8,495 articles in 2017, averaging 28 per no-fee journal and 53 per APC-charging. Average cost per article: \$100 across APC-charging journals, \$32 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	255	273	273	260	247	223
%Free	80%	81%	81%	80%	81%	83%
Articles	8,495	9,473	10,402	9,631	9,189	9,636
%Free	69%	66%	64%	66%	70%	65%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	239	0%
Large: 150-599	14	43%	1,680	45%
Med.: 60-149	63	67%	3,106	66%
Small: 20-59	151	89%	3,080	87%
Smallest: 1-19	51	90%	390	88%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	5	205	\$70,176	\$342
\$0.20-\$199	47	2,452	\$197,811	\$81
Free	228	5,838		
Total	280	8,495	\$267,987	\$32

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	202	82%	6,746	68%
Miscellaneous	40	90%	813	86%
Society/govt	15	80%	459	59%
Open Access	20	60%	418	61%
Traditional	3	67%	59	73%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	22	7.9%	
Grew 25-49.9%	26	9.3%	17.1%
Grew 10-24.99%	25	8.9%	26.1%
Even, ±9.99%	67	23.9%	50.0%
Shrank 10-24.99%	43	15.4%	65.4%
Shrank 25-49.99%	48	17.1%	82.5%
Shrank 50%+	49	17.5%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Economics	59	63%	2,105	55%
Agriculture	15	67%	825	74%
Political Science	26	96%	707	84%
Anthropology	17	76%	667	42%
Language & Literature	21	90%	614	67%
Medicine	18	83%	526	68%
Engineering	12	83%	475	81%
Miscellany	9	67%	346	67%
Computer Science	12	75%	282	53%
Sociology	10	80%	270	45%
Technology	4	100%	192	100%
Philosophy	8	88%	184	85%
Zoology	4	50%	180	61%
Mathematics	9	100%	144	100%
Arts & Architecture	4	100%	119	100%
Biology	4	100%	116	100%
Other Sciences	4	100%	111	100%
Earth Sciences	11	100%	107	100%
History	9	100%	106	100%
Education	5	80%	96	86%
Law	4	100%	81	100%
Physics	4	100%	75	100%
Media & Communications	4	100%	63	100%
Chemistry	1	100%	40	100%
Ecology	3	100%	26	100%
Religion	1	0%	22	0%
Library Science	1	100%	8	100%
Psychology	1	100%	8	100%

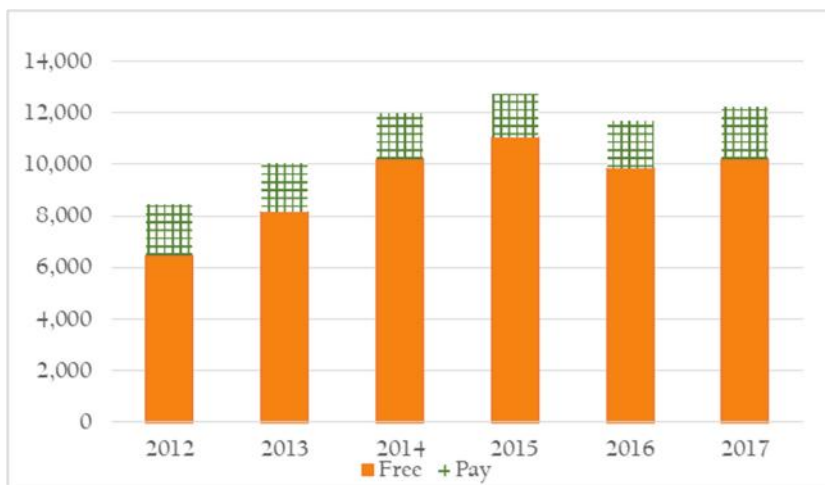


# Russian Federation

194 OA journals; 12,229 articles in 2017; average 61 articles per no-fee journal and 96 per APC-charging. Average cost per article \$101 across fee-charging journals, \$17 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	189	189	184	171	144	115
%Free	89%	89%	89%	89%	89%	88%
Articles	12,229	11,683	12,758	11,968	10,065	8,432
%Free	83%	84%	87%	85%	81%	77%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	100%	832	100%
Large: 150-599	20	70%	2,703	58%
Med.: 60-149	83	89%	5,889	88%
Small: 20-59	83	94%	2,747	94%
Smallest: 1-19	6	83%	58	72%

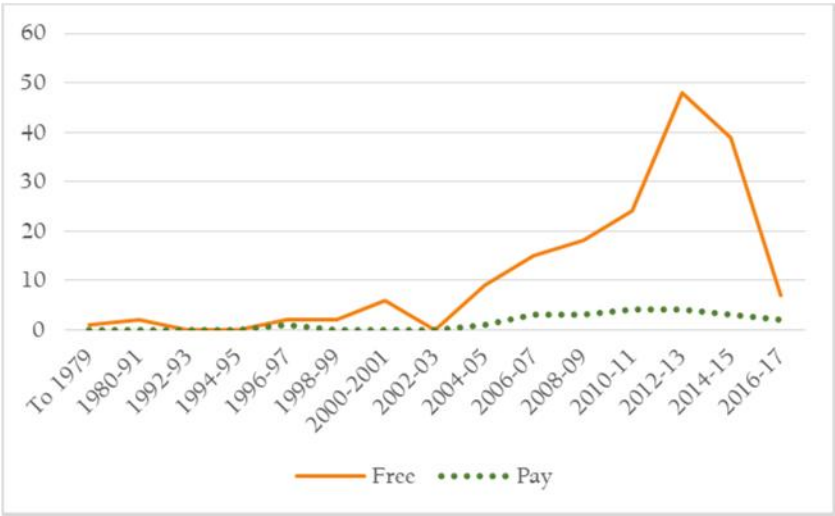
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	189	\$54,248	\$287
\$0.20-\$199	19	1,832	\$149,718	\$82
Free	173	10,208		
Total	194	12,229	\$203,966	\$17

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	113	94%	6,855	87%
Miscellaneous	52	73%	3,753	70%
Society/govt	12	100%	862	100%
Open Access	16	100%	759	100%
Traditional	1	100%	0	

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	22	11.3%	
Grew 25-49.9%	21	10.8%	22.2%
Grew 10-24.99%	31	16.0%	38.1%
Even, ±9.99%	56	28.9%	67.0%
Shrank 10-24.99%	27	13.9%	80.9%
Shrank 25-49.99%	23	11.9%	92.8%
Shrank 50%+	14	7.2%	

**Subjects**

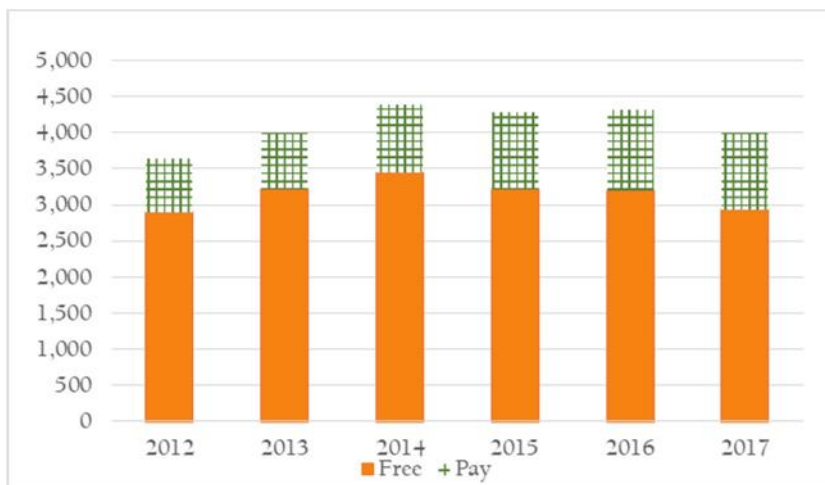
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	50	100%	3,023	100%
Political Science	6	100%	969	100%
Language & literature	12	75%	914	44%
Agriculture	4	75%	699	29%
Law	11	91%	587	90%
Earth Sciences	9	100%	542	100%
Economics	9	67%	475	65%
History	7	86%	469	67%
Sociology	7	86%	458	76%
Arts & Architecture	5	60%	446	75%
Miscellany	7	71%	416	75%
Education	6	83%	383	75%
Engineering	5	80%	355	96%
Psychology	7	100%	343	100%
Computer Science	7	100%	340	100%
Technology	7	86%	338	91%
Anthropology	5	100%	289	100%
Other Sciences	8	100%	273	100%
Ecology	6	67%	238	55%
Biology	3	67%	214	77%
Religion	2	100%	122	100%
Mathematics	3	100%	108	100%
Philosophy	2	100%	85	100%
Zoology	2	100%	57	100%
Physics	2	100%	47	100%
Chemistry	1	100%	23	100%
Media & Communications	1	0%	16	0%

# Serbia

In all, 126 OA journals, 4,005 articles in 2017: average 27 articles per no-fee journal, 90 per APC-charging. Average cost per article: \$741 among APC-charging journals, \$199 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	121	126	121	120	106	99
%Free	90%	90%	90%	90%	91%	92%
Articles	4,005	4,326	4,288	4,398	3,991	3,647
%Free	73%	74%	75%	78%	80%	79%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	4	50%	718	25%
Med.: 60-149	24	71%	1,385	64%
Small: 20-59	68	97%	1,584	98%
Smallest: 1-19	30	97%	318	97%

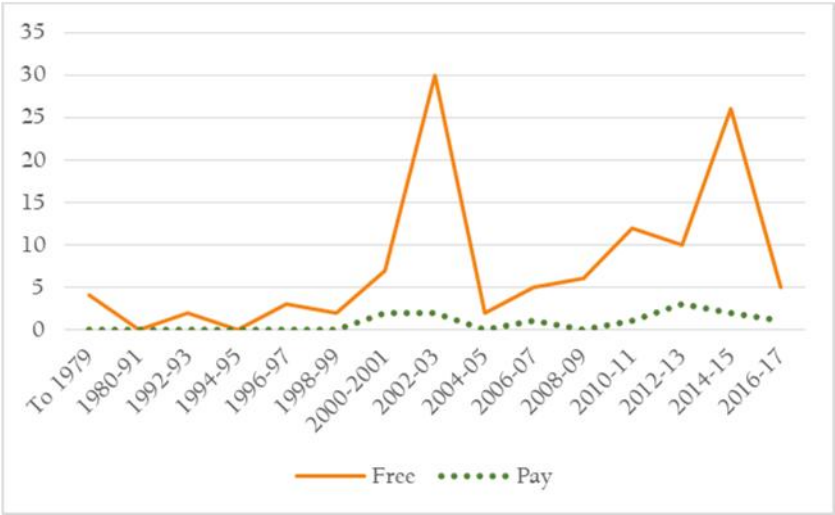
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	368	\$684,848	\$1,861
\$200-\$599	1	114	\$42,066	\$369
\$0.20-\$199	10	596	\$71,802	\$120
Free	114	2,927		
Total	126	4,005	\$798,716	\$199

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	87	95%	2,669	76%
Society/govt	22	82%	809	71%
Miscellaneous	16	75%	479	56%
Open Access	1	100%	48	100%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	9	7.1%	
Grew 25-49.9%	15	11.9%	19.0%
Grew 10-24.99%	14	11.1%	30.2%
Even, ±9.99%	37	29.4%	59.5%
Shrank 10-24.99%	24	19.0%	78.6%
Shrank 25-49.99%	13	10.3%	88.9%
Shrank 50%+	14	11.1%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Engineering	10	90%	629	41%
Economics	19	84%	515	70%
Medicine	13	69%	442	29%
Chemistry	5	60%	259	57%
Technology	5	100%	253	100%
Anthropology	9	89%	210	93%
Other Sciences	4	75%	195	42%
Biology	2	100%	175	100%
Arts & Architecture	9	100%	155	100%
Language & Literature	4	100%	148	100%
Earth Sciences	6	100%	117	100%
Agriculture	6	100%	114	100%
Law	4	100%	99	100%
Mathematics	4	100%	99	100%
Philosophy	2	100%	96	100%
Miscellany	2	100%	86	100%
Education	4	100%	83	100%
Sociology	3	100%	82	100%
Computer Science	2	100%	67	100%
Zoology	2	100%	63	100%
Ecology	2	100%	40	100%
Psychology	2	100%	17	100%
Religion	1	100%	17	100%
Media & Communications	1	100%	16	100%
Political Science	2	100%	16	100%
History	3	100%	12	100%

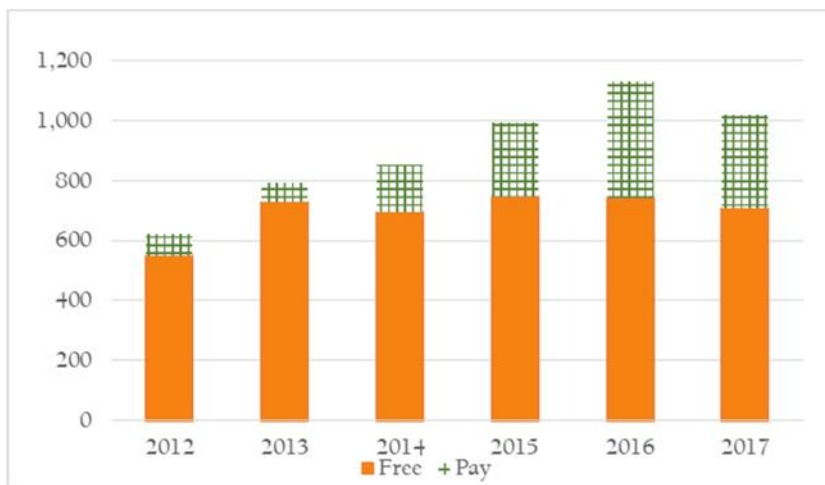


# Slovakia

Thirty-eight OA journal, 1,020 articles in 2017; average 24 articles per no-fee journal, 35 per APC-charging. Average cost per article: \$176 across APC-charging journals, \$54 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	38	38	36	31	27	21
%Free	76%	76%	78%	84%	89%	90%
Articles	1,020	1,131	993	851	795	624
%Free	69%	65%	75%	82%	92%	88%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	100%	123	100%
Med.: 60-149	4	50%	261	23%
Small: 20-59	19	84%	475	85%
Smallest: 1-19	14	71%	161	75%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	2	138	\$40,470	\$293
\$0.20-\$199	7	176	\$14,787	\$84
Free	29	706		
Total	38	1,020	\$55,257	\$54

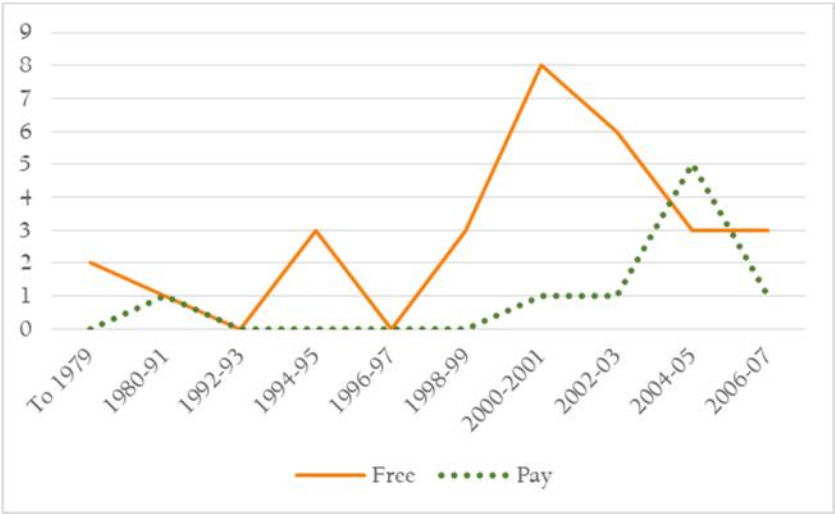
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	14	86%	481	74%
Open Access	16	75%	274	84%
Miscellaneous	7	57%	251	41%
Society/govt	1	100%	14	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	4	10.5%	
Grew 25-49.9%	7	18.4%	28.9%
Grew 10-24.99%	6	15.8%	44.7%
Even, $\pm$ 9.99%	6	15.8%	60.5%
Shrank 10-24.99%	6	15.8%	76.3%
Shrank 25-49.99%	6	15.8%	92.1%
Shrank 50%+	3	7.9%	

Starting Date



Subjects

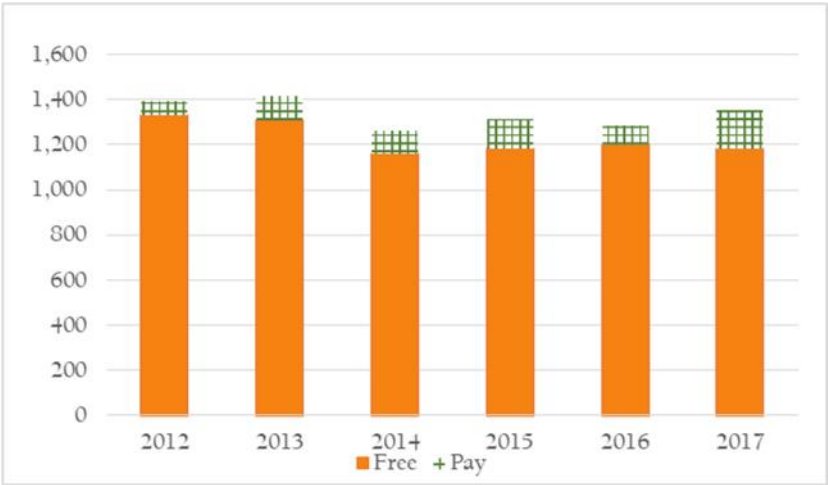
Subject	Journals	%Free	Articles	%Free
Agriculture	4	75%	160	29%
Biology	2	100%	144	100%
Other Sciences	1	0%	88	0%
Medicine	4	100%	80	100%
Miscellany	2	50%	79	70%
Earth Sciences	3	100%	64	100%
Sociology	3	100%	55	100%
Engineering	4	50%	51	59%
Language & Literature	2	50%	48	79%
Economics	2	50%	46	24%
Library Science	1	100%	40	100%
Anthropology	2	100%	39	100%
Computer Science	2	50%	38	74%
Education	1	100%	29	100%
Ecology	1	100%	14	100%
Religion	1	100%	14	100%
Technology	1	0%	12	0%
Psychology	1	100%	10	100%
Zoology	1	100%	9	100%

# Slovenia

Slovenia’s 49 OA journals published 1,356 articles in 2017, averaging 26 articles per no-fee journal and 86 per APC-charging. Average cost per article was \$355 across APC-charging journals, \$46 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	48	49	48	47	46	44
%Free	96%	96%	96%	96%	96%	95%
Articles	1,356	1,285	1,314	1,262	1,414	1,391
%Free	87%	93%	90%	92%	92%	95%



### Article Volume

	Journals	%Free	Articles	%Free
Large: 150-599	1	0%	152	0%
Med.: 60-149	9	100%	447	100%
Small: 20-59	23	96%	578	96%
Smallest: 1-19	16	100%	179	100%

### APC Levels and Revenue

	Journals	Articles	Revenue	\$/article
\$200-\$599	2	174	\$61,826	\$355
Free	47	1,182		
Total	49	1,356	\$61,826	\$46

### Publisher Category

Category	Journals	%Free	Articles	%Free
Univ/college	30	100%	673	100%
Open Access	6	83%	279	46%
Society/govt	5	80%	259	92%
Miscellaneous	8	100%	145	100%

### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	6	12.2%	
Grew 25-49.9%	8	16.3%	28.6%
Grew 10-24.99%	8	16.3%	44.9%
Even, $\pm$ 9.99%	15	30.6%	75.5%
Shrank 10-24.99%	2	4.1%	79.6%
Shrank 25-49.99%	6	12.2%	91.8%
Shrank 50%+	4	8.2%	

Starting Date



Subjects

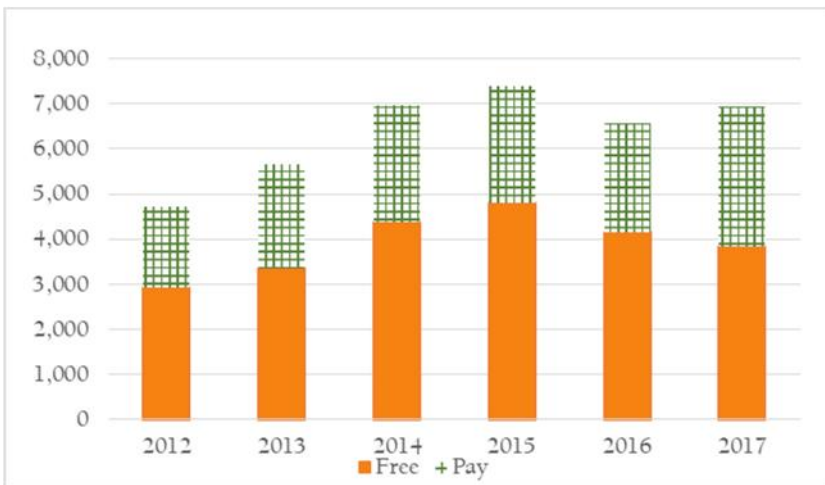
Subject	Journals	%Free	Articles	%Free
Language & Literature	10	100%	222	100%
Engineering	1	0%	152	0%
Education	5	100%	140	100%
Chemistry	1	100%	126	100%
Medicine	2	100%	120	100%
Economics	5	100%	107	100%
Agriculture	3	100%	78	100%
Sociology	3	100%	62	100%
Earth Sciences	3	100%	60	100%
Anthropology	4	100%	59	100%
Miscellany	2	100%	57	100%
Technology	2	100%	40	100%
Library Science	1	100%	30	100%
Arts & Architecture	2	100%	29	100%
Physics	1	0%	22	0%
Computer Science	1	100%	20	100%
Psychology	1	100%	19	100%
Political Science	1	100%	9	100%
Law	1	100%	4	100%

# Ukraine

Ukraine's 119 OA journals accounted for 6,945 articles in 2017, average 54 articles per no-fee journal and 69 per fee-charging. Average cost per article: \$42 across APC-charging journals, \$19 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	116	116	113	108	92	71
%Free	61%	62%	64%	65%	63%	65%
Articles	6,945	6,564	7,400	6,955	5,650	4,708
%Free	55%	63%	65%	63%	59%	62%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	50%	830	19%
Large: 150-599	16	56%	1,812	49%
Med.: 60-149	54	59%	3,105	65%
Small: 20-59	38	66%	1,113	62%
Smallest: 1-19	9	67%	85	69%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	94	\$47,275	\$503
\$0.20-\$199	44	3,022	\$83,491	\$28
Free	73	3,829		
Total	119	6,945	\$130,766	\$19

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	98	66%	5,811	60%
Miscellaneous	18	28%	1,012	22%
Society/govt	3	100%	122	100%



### Starting Date



### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	18	15.1%	
Grew 25-49.9%	9	7.6%	22.7%
Grew 10-24.99%	12	10.1%	32.8%
Even, ±9.99%	32	26.9%	59.7%
Shrank 10-24.99%	16	13.4%	73.1%
Shrank 25-49.99%	21	17.6%	90.8%
Shrank 50%+	11	9.2%	

**Subjects**

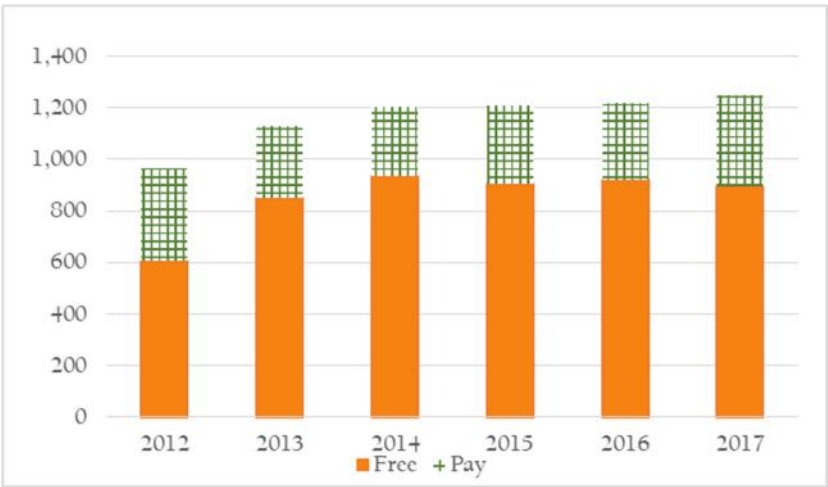
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	21	71%	1,495	61%
Economics	18	39%	1,030	40%
Biology	5	80%	904	26%
Engineering	10	50%	523	41%
Computer Science	8	75%	372	91%
Anthropology	7	86%	326	93%
Language & Literature	3	0%	233	0%
Miscellany	3	100%	232	100%
Mathematics	7	71%	227	80%
Education	4	25%	221	37%
Agriculture	5	80%	206	93%
Earth Sciences	4	50%	160	45%
Other Sciences	2	100%	155	100%
Philosophy	3	100%	150	100%
Ecology	2	50%	131	60%
Sociology	1	0%	127	0%
Technology	4	75%	111	89%
Political Science	3	33%	75	20%
Arts & Architecture	1	100%	66	100%
Library Science	1	100%	46	100%
Chemistry	2	50%	41	51%
Zoology	1	0%	39	0%
History	1	0%	34	0%
Physics	2	100%	29	100%
Psychology	1	0%	12	0%

# Other Eastern European Countries

Eight countries with 30 journals, 1,250 articles in 2017, average 39 articles per free journal, 59 APC-charging. Average cost per article \$208 for APC-charging, \$59 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	29	29	28	27	25	22
%Free	79%	79%	79%	81%	84%	86%
Articles	1,250	1,220	1,211	1,204	1,129	967
%Free	72%	75%	75%	77%	75%	63%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	2	0%	230	0%
Med.: 60-149	10	80%	586	85%
Small: 20-59	14	86%	379	89%
Smallest: 1-19	4	100%	55	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	3	272	\$70,098	\$258
\$0.20-\$199	3	84	\$4,033	\$48
Free	24	894	\$0	\$0
Total	30	1,250	\$74,131	\$59

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	20	80%	789	86%
Miscellaneous	8	75%	338	28%
Traditional	1	100%	80	100%
Society/govt	1	100%	43	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	6	20.0%	
Grew 25-49.9%	3	10.0%	30.0%
Grew 10-24.99%	4	13.3%	43.3%
Even, $\pm$ 9.99%	7	23.3%	66.7%
Shrank 10-24.99%	4	13.3%	80.0%
Shrank 25-49.99%	4	13.3%	93.3%
Shrank 50%+	2	6.7%	

### Starting Date



### Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	3	67%	264	18%
Agriculture	2	100%	189	100%
Engineering	3	100%	183	100%
Economics	3	100%	100	100%
Education	4	75%	95	74%
Other Sciences	2	100%	84	100%
Computer Science	2	100%	81	100%
Ecology	1	0%	55	0%
Anthropology	2	50%	50	40%
Psychology	1	100%	46	100%
Language & Literature	2	100%	29	100%
Zoology	1	100%	24	100%
Sociology	2	100%	21	100%
Political Science	1	0%	16	0%
Chemistry	1	0%	13	0%

## Country Summaries

### **Albania**

Two no-fee journals published 42 articles in 2017.

### **Belarus**

Six no-fee journals published 328 articles in 2017.

### **Cyprus**

Four journals, three of them no-fee, published 90 articles in 2017.

### **Georgia**

Two no-fee journals published 126 articles in 2017.

### **Kazakhstan**

One APC-charging journal published 13 articles in 2017.

### **Macedonia, the Former Yugoslav Republic of**

Eight journals (two with fees), 354 articles in 2017.

### **Montenegro**

Six journals (two with fees), 287 articles in 2017.

### **Turkmenistan**

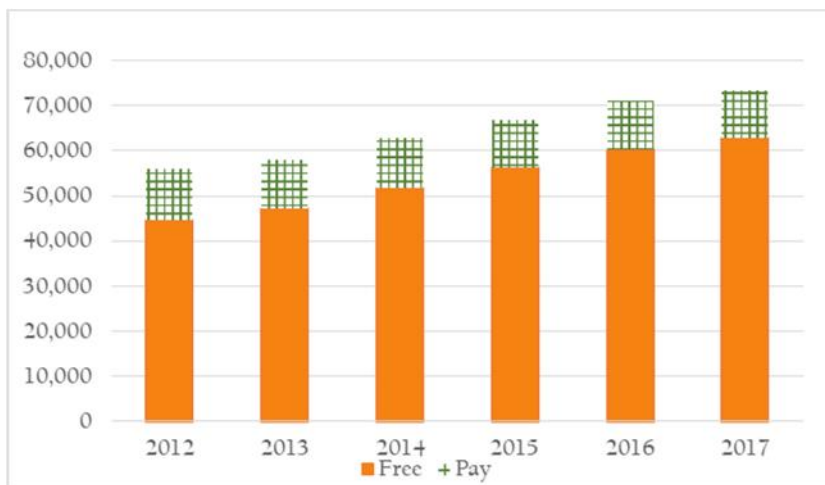
One no-fee journal with ten articles in 2017.

# Latin America

In all, 1,923 journals, 73,299 articles in 2017, average 37 articles per no-fee journal and 88 per APC-charging. Average cost per article: \$341 across APC-charging journals, \$49 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	1,839	1,895	1,860	1,769	1,678	1,561
%Free	94%	94%	94%	93%	93%	92%
Articles	73,299	71,002	66,869	62,723	58,084	56,064
%Free	86%	85%	84%	82%	81%	80%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	50%	148	23%
Large: 150-599	71	56%	11,578	55%
Med.: 60-149	374	84%	25,498	83%
Small: 20-59	1,192	98%	32,988	98%
Smallest: 1-19	284	97%	3,087	97%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	3	334	\$511,900	\$1,533
\$600-\$1,399	14	1,355	\$1,122,249	\$828
\$200-\$599	43	4,070	\$1,467,077	\$360
\$0.20-\$199	64	4,703	\$462,144	\$98
Free	1,799	62,837		
Total	1,923	73,299	\$3,563,370	\$49

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	1,591	95%	55,993	89%
Society/govt	193	82%	11,568	73%
Miscellaneous	123	89%	4,777	76%
Open Access	6	100%	516	100%
Traditional	10	100%	445	100%



## Starting Date



## Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	269	14.0%	
Grew 25-49.9%	238	12.4%	26.4%
Grew 10-24.99%	266	13.8%	40.2%
Even, ±9.99%	518	26.9%	67.1%
Shrank 10-24.99%	240	12.5%	79.6%
Shrank 25-49.99%	223	11.6%	91.2%
Shrank 50%+	169	8.8%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	239	86%	14,820	79%
Education	159	98%	6,521	96%
Agriculture	94	68%	5,281	52%
Language & Literature	123	99%	4,198	99%
Economics	142	99%	3,646	99%
Sociology	128	100%	3,569	100%
Miscellany	82	99%	3,352	97%
Anthropology	100	97%	2,851	97%
Law	107	99%	2,707	98%
History	80	100%	2,222	100%
Earth Sciences	69	90%	2,191	84%
Zoology	38	66%	2,168	37%
Engineering	59	97%	2,133	96%
Biology	25	60%	2,104	45%
Other Sciences	48	98%	1,860	93%
Media & Communications	54	98%	1,845	99%
Ecology	51	88%	1,778	74%
Psychology	59	100%	1,723	100%
Political Science	57	98%	1,463	99%
Arts & Architecture	52	98%	1,377	100%
Philosophy	49	98%	1,259	99%
Technology	21	95%	1,156	96%
Library Science	26	100%	733	100%
Religion	23	96%	723	95%
Chemistry	8	50%	644	13%
Mathematics	14	100%	411	100%
Physics	6	67%	296	90%
Computer Science	10	100%	268	100%

**Countries**

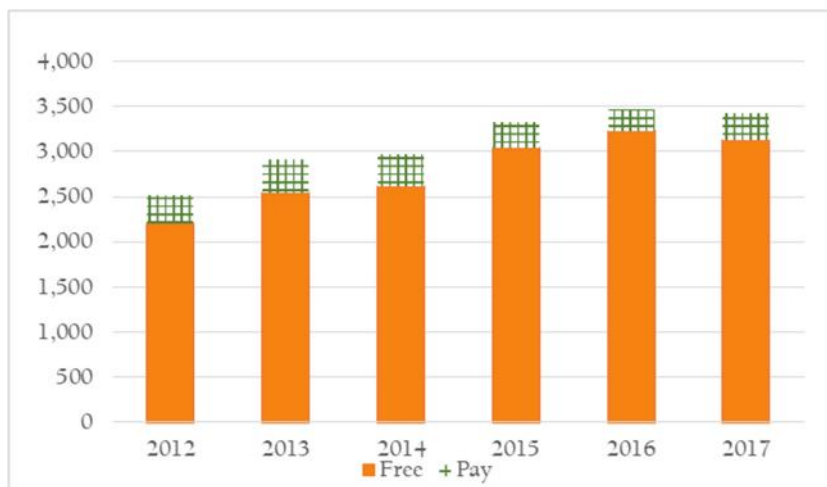
<b>Country</b>	<b>Jour.</b>	<b>%Free</b>	<b>Art.</b>	<b>%Free</b>
Argentina	160	94%	3,424	91%
Bahamas	1	100%	10	100%
Barbados	1	100%	32	100%
Bolivia, Plurinational State of	4	100%	57	100%
Brazil	1,095	92%	51,227	82%
Chile	80	94%	2,031	83%
Colombia	266	99%	7,042	98%
Costa Rica	47	100%	1,230	100%
Cuba	47	100%	1,952	100%
Ecuador	36	100%	1,326	100%
El Salvador	1	100%	26	100%
Guam	1	0%	5	0%
Guatemala	3	100%	15	100%
Jamaica	1	0%	5	0%
Mexico	98	89%	3,004	85%
Nicaragua	4	100%	20	100%
Paraguay	5	100%	100	100%
Peru	35	97%	1,096	96%
Puerto Rico	2	100%	19	100%
Uruguay	14	100%	307	100%
Venezuela, Bolivarian Republic of	22	86%	371	60%

# Argentina

Argentina's 160 OA journals published 3,424 articles in 2017; average 22 articles per no-fee journal, 38 per APC-charging. Average cost per article: \$491 across APC-charging journals, \$43 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	151	158	155	146	141	127
%Free	95%	94%	94%	94%	94%	93%
Articles	3,424	3,467	3,322	2,970	2,913	2,520
%Free	91%	93%	92%	88%	88%	87%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	2	50%	221	48%
Med.: 60-149	7	86%	405	84%
Small: 20-59	98	96%	2,236	96%
Smallest: 1-19	53	94%	562	96%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	1	116	\$116,000	\$1,000
\$200-\$599	3	106	\$25,500	\$241
\$0.20-\$199	5	79	\$6,402	\$81
Free	151	3,123	\$0	\$0
Total	160	3,424	\$147,902	\$43

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	119	98%	2,385	98%
Society/govt	22	82%	567	79%
Miscellaneous	18	83%	404	69%
Traditional	1	100%	68	100%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	26	16.3%	
Grew 25-49.9%	14	8.8%	25.0%
Grew 10-24.99%	22	13.8%	38.8%
Even, ±9.99%	36	22.5%	61.3%
Shrank 10-24.99%	19	11.9%	73.1%
Shrank 25-49.99%	26	16.3%	89.4%
Shrank 50%+	17	10.6%	

**Subjects**

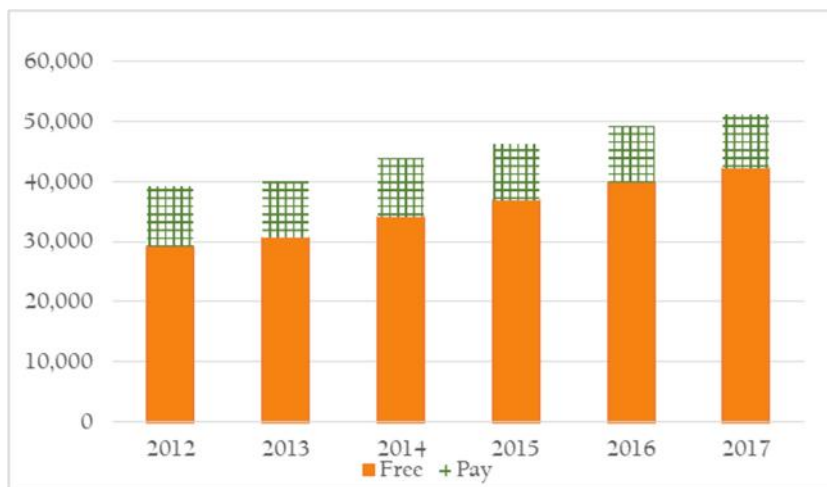
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	11	91%	516	78%
History	20	100%	498	100%
Anthropology	21	95%	406	96%
Sociology	17	100%	301	100%
Agriculture	10	50%	213	35%
Language & Literature	6	100%	192	100%
Media & Communications	7	100%	182	100%
Economics	9	100%	140	100%
Arts & Architecture	7	100%	138	100%
Education	7	100%	116	100%
Earth Sciences	7	100%	100	100%
Psychology	5	100%	96	100%
Philosophy	8	100%	92	100%
Miscellany	2	100%	74	100%
Zoology	3	100%	59	100%
Other Sciences	3	100%	57	100%
Library Science	2	100%	49	100%
Law	3	100%	47	100%
Political Science	3	100%	45	100%
Physics	2	0%	30	0%
Computer Science	2	100%	21	100%
Ecology	3	100%	21	100%
Technology	1	100%	20	100%
Religion	1	100%	11	100%

# Brazil

Brazil's 1,095 OA journals published 51,227 articles in 2017, averaging 43 articles per no-fee journal, 105 per APC-charging. Average cost per article was \$343 across APC-charging journals, \$61 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	1,059	1,083	1,053	987	939	871
%Free	92%	92%	92%	91%	91%	90%
Articles	51,227	49,302	46,291	43,818	40,056	39,289
%Free	82%	81%	79%	78%	76%	74%





**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	2	50%	148	23%
Large: 150-599	59	49%	9,858	48%
Med.: 60-149	295	84%	20,186	83%
Small: 20-59	661	99%	20,121	99%
Smallest: 1-19	78	96%	914	95%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	3	334	\$511,900	\$1,533
\$600-\$1,399	9	1,029	\$857,199	\$833
\$200-\$599	32	3,672	\$1,346,125	\$367
\$0.20-\$199	46	4,027	\$390,028	\$97
Free	1,005	42,165		
Total	1,095	51,227	\$3,105,252	\$61

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	882	94%	37,528	86%
Society/govt	144	80%	10,277	71%
Miscellaneous	61	85%	2,759	68%
Open Access	5	100%	516	100%
Traditional	3	100%	147	100%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	150	13.7%	
Grew 25-49.9%	156	14.2%	27.9%
Grew 10-24.99%	148	13.5%	41.5%
Even, ±9.99%	303	27.7%	69.1%
Shrank 10-24.99%	137	12.5%	81.6%
Shrank 25-49.99%	112	10.2%	91.9%
Shrank 50%+	89	8.1%	

## Subjects

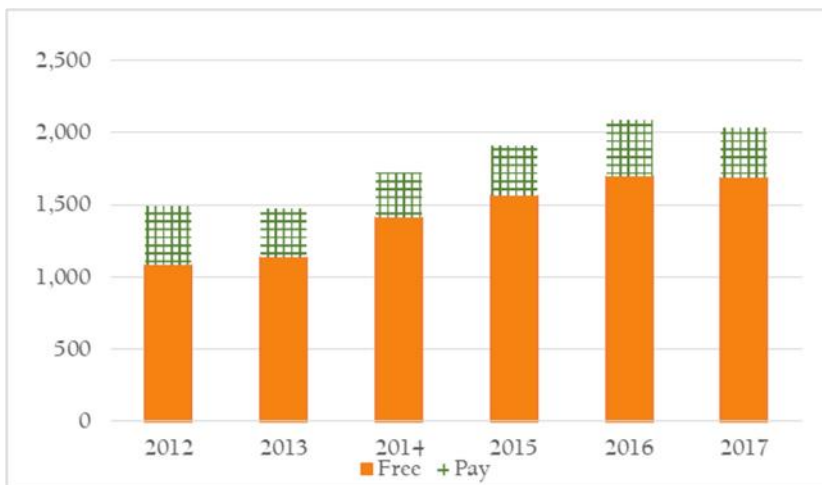
Subject	Journals	%Free	Articles	%Free
Medicine	148	80%	11,209	74%
Education	98	97%	4,418	95%
Agriculture	55	65%	4,145	49%
Language & Literature	92	100%	3,348	100%
Economics	87	100%	2,525	100%
Law	71	99%	2,031	98%
Miscellany	44	100%	1,986	100%
Sociology	62	100%	1,982	100%
Zoology	22	45%	1,774	26%
Anthropology	43	95%	1,708	96%
Earth Sciences	42	93%	1,630	83%
Biology	16	44%	1,603	35%
History	38	100%	1,272	100%
Media & Communications	35	100%	1,242	100%
Ecology	30	87%	1,212	75%
Other Sciences	20	95%	1,152	89%
Engineering	17	94%	1,050	94%
Technology	13	92%	992	96%
Psychology	25	100%	931	100%
Political Science	31	100%	858	100%
Arts & Architecture	26	96%	816	100%
Philosophy	24	100%	798	100%
Chemistry	4	25%	597	9%
Religion	18	94%	588	93%
Library Science	17	100%	582	100%
Mathematics	8	100%	319	100%
Physics	4	100%	266	100%
Computer Science	5	100%	193	100%

# Chile

Eighty OA journals, 2,031 articles in 2017; average of 24 articles per no-fee journal, 68 per APC-charging journal. Average cost per article: \$542 across APC-charging journals, \$91 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	74	79	77	75	69	63
%Free	93%	94%	94%	93%	93%	92%
Articles	2,031	2,089	1,911	1,724	1,473	1,493
%Free	83%	81%	82%	82%	77%	73%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	8	50%	613	52%
Small: 20-59	49	98%	1,187	96%
Smallest: 1-19	23	100%	231	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	3	205	\$144,050	\$703
\$200-\$599	2	136	\$40,800	\$300
Free	75	1,690		
Total	80	2,031	\$184,850	\$91

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	71	96%	1,738	88%
Miscellaneous	7	71%	233	44%
Society/govt	2	100%	60	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	10	12.5%	
Grew 25-49.9%	11	13.8%	26.3%
Grew 10-24.99%	9	11.3%	37.5%
Even, $\pm$ 9.99%	20	25.0%	62.5%
Shrank 10-24.99%	12	15.0%	77.5%
Shrank 25-49.99%	11	13.8%	91.3%
Shrank 50%+	7	8.8%	

Starting Date



## Subjects

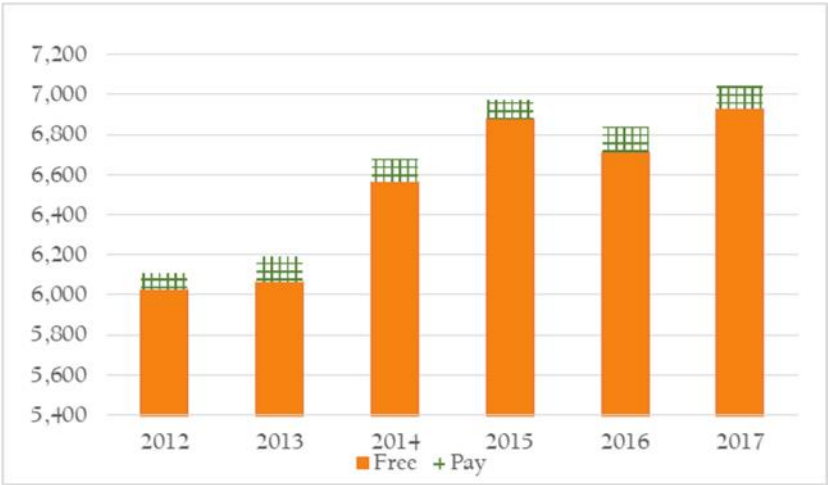
Subject	Journals	%Free	Articles	%Free
Medicine	7	71%	359	58%
Miscellany	5	100%	168	100%
Political Science	6	100%	152	100%
Biology	2	50%	120	7%
Engineering	4	75%	119	80%
Arts & Architecture	6	100%	107	100%
Media & Communications	3	100%	106	100%
Sociology	5	100%	93	100%
Agriculture	2	50%	91	42%
History	6	100%	84	100%
Language & Literature	4	100%	84	100%
Law	4	100%	78	100%
Philosophy	4	100%	75	100%
Psychology	3	100%	72	100%
Education	3	100%	66	100%
Earth Sciences	3	100%	58	100%
Ecology	3	100%	56	100%
Anthropology	3	100%	52	100%
Religion	2	100%	49	100%
Computer Science	1	100%	18	100%
Economics	2	100%	12	100%
Chemistry	1	100%	7	100%
Library Science	1	100%	5	100%

# Colombia

Colombia’s 266 OA journals published 7,042 articles in 2017, averaging 28 articles per no-fee journal and 37 in APC-charging. Average cost per article: \$23 across APC-charging and \$0.37 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	249	260	264	260	250	242
%Free	99%	99%	99%	99%	99%	99%
Articles	7,042	6,839	6,972	6,680	6,193	6,106
%Free	98%	98%	99%	98%	98%	99%





Article Volume

	Journals	%Free	Articles	%Free
Large: 150-599	4	100%	537	100%
Med.: 60-149	21	90%	1,302	93%
Small: 20-59	194	99%	4,733	100%
Smallest: 1-19	47	100%	470	100%

APC Levels and Revenue

	Journals	Articles	Revenue	\$/article
\$0.20-\$199	3	111	\$2,586	\$23
Free	263	6,931		
Total	266	7,042	\$2,586	\$0.37

Publisher Category

Category	Journals	%Free	Articles	%Free
Univ/college	247	99%	6,505	98%
Miscellaneous	15	100%	480	100%
Traditional	3	100%	57	100%
Society/govt	1	100%	0	

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	39	14.7%	
Grew 25-49.9%	26	9.8%	24.4%
Grew 10-24.99%	39	14.7%	39.1%
Even, ±9.99%	71	26.7%	65.8%
Shrank 10-24.99%	28	10.5%	76.3%
Shrank 25-49.99%	36	13.5%	89.8%
Shrank 50%+	27	10.2%	

**Subjects**

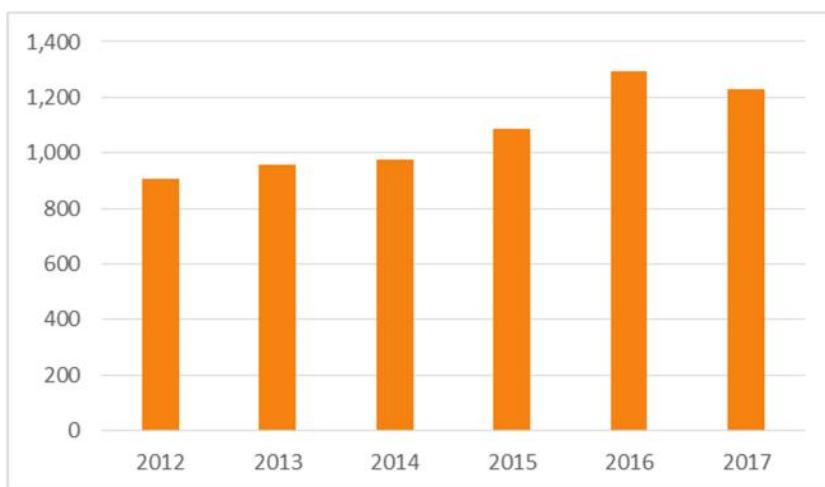
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	27	100%	997	100%
Engineering	23	100%	662	100%
Sociology	21	100%	551	100%
Economics	22	100%	484	100%
Psychology	14	100%	395	100%
Law	22	100%	371	100%
Miscellany	14	100%	343	100%
Education	16	100%	317	100%
Agriculture	10	90%	303	85%
Anthropology	14	100%	280	100%
History	11	100%	262	100%
Biology	2	100%	252	100%
Political Science	9	100%	252	100%
Language & Literature	9	89%	247	81%
Other Sciences	8	100%	216	100%
Philosophy	7	100%	201	100%
Arts & Architecture	6	100%	199	100%
Zoology	4	100%	190	100%
Earth Sciences	7	100%	140	100%
Media & Communications	5	100%	130	100%
Mathematics	4	100%	65	100%
Ecology	4	100%	59	100%
Religion	1	100%	31	100%
Chemistry	2	50%	30	40%
Library Science	1	100%	27	100%
Technology	2	100%	22	100%
Computer Science	1	100%	16	100%

# Costa Rica

None of the 47 OA journals, which published 1,230 articles in 2017, charges fees. Average 27 articles per journal.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	46	47	47	46	46	44
Articles	1,230	1,295	1,088	978	957	905



Article Volume

	Journals	Articles
Large: 150-599	1	163
Med.: 60-149	6	344
Small: 20-59	21	513
Smallest: 1-19	19	210

Publisher Category

Category	Journals	Articles
Miscellaneous	2	39
Univ/college	45	1,191

Starting Date



**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	9	19.1%	
Grew 25-49.9%	1	2.1%	21.3%
Grew 10-24.99%	5	10.6%	31.9%
Even, $\pm 9.99\%$	13	27.7%	59.6%
Shrank 10-24.99%	6	12.8%	72.3%
Shrank 25-49.99%	9	19.1%	91.5%
Shrank 50%+	4	8.5%	

**Subjects**

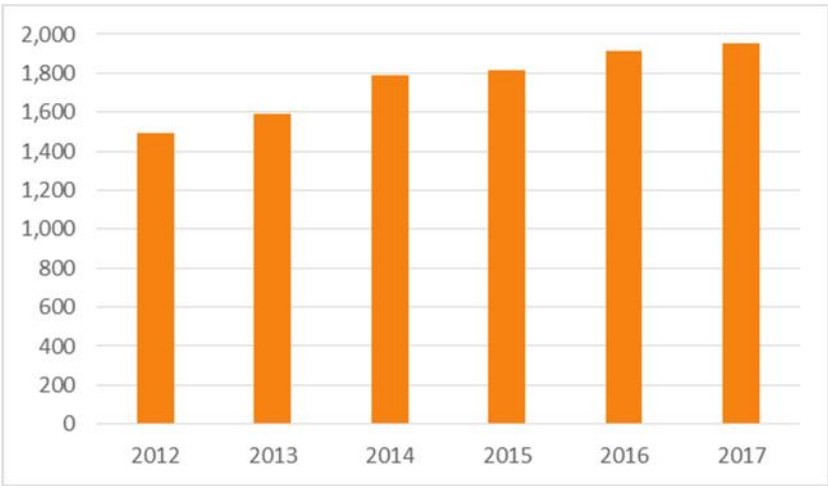
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Ecology	3	187
Education	4	178
Miscellany	3	150
Medicine	6	115
Agriculture	3	91
Engineering	2	61
Law	2	55
Other Sciences	2	49
Sociology	3	48
Anthropology	3	46
Psychology	3	44
Religion	1	44
Library Science	2	29
Economics	3	28
Arts & Architecture	1	20
History	1	18
Mathematics	1	18
Philosophy	1	17
Language & Literature	1	13
Earth Sciences	1	11
Zoology	1	8

# Cuba

None of Cuba’s 47 OA journals, which published 1,952 articles in 2017 and average 44 articles per journal, charges fees.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	44	44	46	46	45	42
Articles	1,952	1,911	1,813	1,792	1,591	1,490



Article Volume

	Journals	Articles
Large: 150-599	2	264
Med.: 60-149	10	779
Small: 20-59	30	858
Smallest: 1-19	5	51

Publisher Category

Category	Journals	Articles
Univ/college	32	1,478
Society/govt	9	312
Miscellaneous	6	162

Starting Date





**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	5	10.6%	
Grew 25-49.9%	3	6.4%	17.0%
Grew 10-24.99%	5	10.6%	27.7%
Even, $\pm 9.99\%$	18	38.3%	66.0%
Shrank 10-24.99%	5	10.6%	76.6%
Shrank 25-49.99%	8	17.0%	93.6%
Shrank 50%+	3	6.4%	

**Subjects**

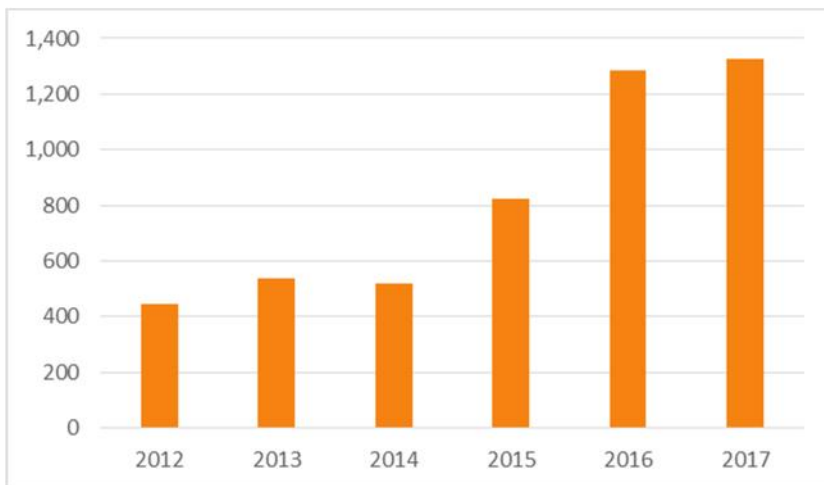
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Education	10	807
Medicine	16	646
Agriculture	6	173
Engineering	4	107
Anthropology	3	67
Earth Sciences	2	51
Library Science	2	36
Economics	1	26
Technology	1	20
Biology	1	19
Political Science	1	0

# Ecuador

Thirty-six journals, none with fees, published 1,326 articles in 2017, with active journals averaging 38 articles per journal.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	35	36	31	30	25	23
Articles	1,326	1,286	825	521	536	445



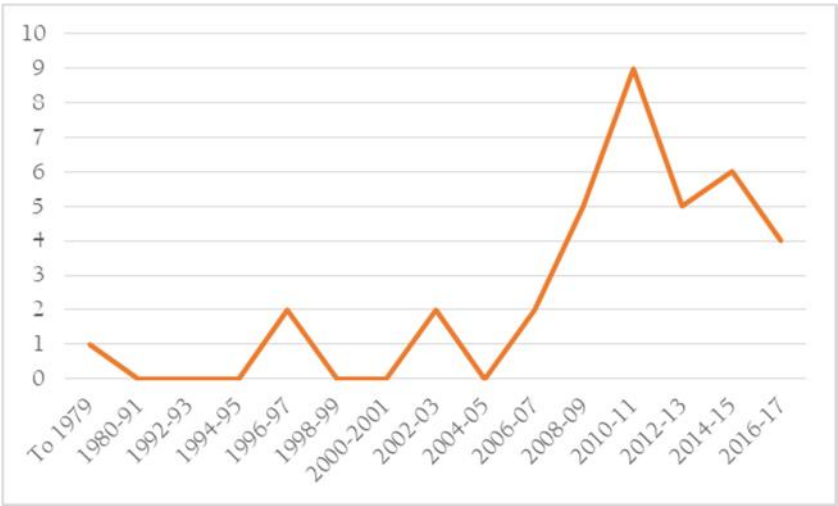
Article Volume

	Journals	Articles
Large: 150-599	2	412
Med.: 60-149	2	172
Small: 20-59	27	681
Smallest: 1-19	5	61

Publisher Category

Category	Journals	Articles
Univ/college	33	990
Miscellaneous	3	336

Starting Date



**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	6	16.7%	
Grew 25-49.9%	4	11.1%	27.8%
Grew 10-24.99%	6	16.7%	44.4%
Even, $\pm 9.99\%$	8	22.2%	66.7%
Shrank 10-24.99%	4	11.1%	77.8%
Shrank 25-49.99%	5	13.9%	91.7%
Shrank 50%+	3	8.3%	

**Subjects**

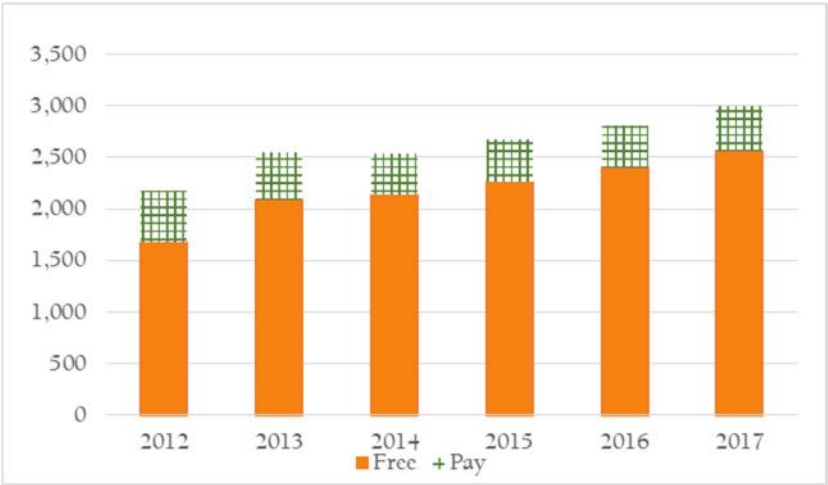
<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Miscellany	5	352
Sociology	4	172
Media & Communications	2	160
Language & Literature	1	93
Technology	2	78
Education	2	67
Medicine	3	66
Engineering	4	60
Economics	2	55
Agriculture	2	35
Political Science	1	31
Biology	1	30
Other Sciences	1	25
Arts & Architecture	2	24
Ecology	1	24
Philosophy	1	21
Computer Science	1	20
History	1	13

# Mexico

Mexico’s 98 OA journals published 3,004 articles in 2017, averaging 30 articles per no-fee journal and 40 per APC-charging. Average cost per article was \$174 among APC-charging journals, \$26 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	95	97	97	94	85	78
%Free	88%	89%	89%	88%	87%	86%
Articles	3,004	2,817	2,678	2,543	2,555	2,174
%Free	85%	85%	85%	84%	82%	77%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	100%	123	100%
Med.: 60-149	14	79%	1,059	78%
Small: 20-59	58	90%	1,535	88%
Smallest: 1-19	25	92%	287	91%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	3	111	\$34,902	\$314
\$0.20-\$199	8	333	\$42,188	\$127
Free	87	2,560		
Total	98	3,004	\$77,090	\$26

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	84	89%	2,418	85%
Miscellaneous	6	100%	269	100%
Traditional	3	100%	173	100%
Society/govt	4	50%	144	41%
Open Access	1	100%	0	

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	10	10.2%	
Grew 25-49.9%	17	17.3%	27.6%
Grew 10-24.99%	18	18.4%	45.9%
Even, ±9.99%	25	25.5%	71.4%
Shrank 10-24.99%	16	16.3%	87.8%
Shrank 25-49.99%	6	6.1%	93.9%
Shrank 50%+	6	6.1%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Education	10	100%	365	100%
Sociology	12	100%	335	100%
Medicine	6	100%	312	100%
Other Sciences	8	100%	294	100%
Economics	9	100%	282	100%
Anthropology	9	100%	200	100%
Ecology	3	33%	178	7%
Earth Sciences	5	40%	177	60%
Language & Literature	6	100%	155	100%
Agriculture	3	0%	131	0%
Miscellany	4	100%	100	100%
Political Science	4	75%	84	80%
Zoology	3	67%	79	35%
History	3	100%	75	100%
Arts & Architecture	3	100%	73	100%
Philosophy	3	67%	55	84%
Engineering	2	100%	45	100%
Psychology	2	100%	23	100%
Law	1	100%	22	100%
Biology	1	100%	13	100%
Media & Communications	1	100%	6	100%

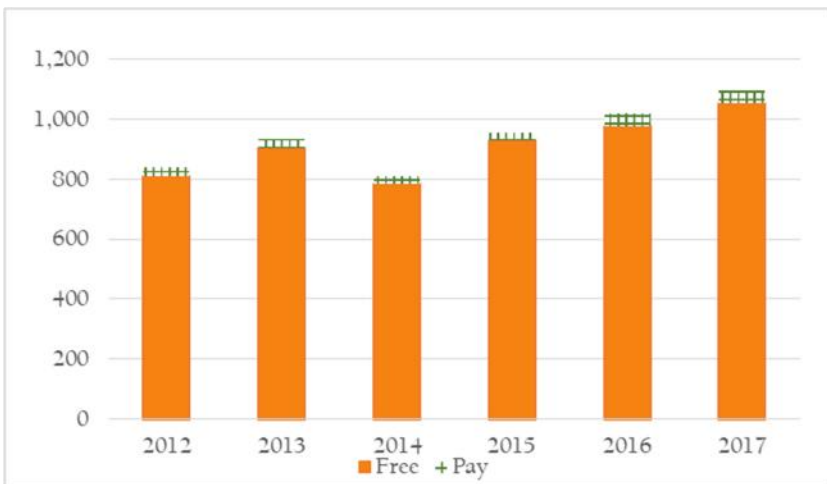


# Peru

Peru's 37 OA journals had 1,096 articles in 2017, averaging 33 articles per no-fee journal, 43 per APC-charging. Average cost per article \$180 for the one APC-charging journal s, \$7 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	33	35	34	32	31	28
%Free	97%	97%	97%	97%	97%	96%
Articles	1,096	1,021	954	809	934	841
%Free	96%	96%	98%	97%	97%	96%



**Article Volume**

	Journals	%Free	Articles	%Free
Med.: 60-149	8	100%	458	100%
Small: 20-59	22	95%	554	92%
Smallest: 1-19	5	100%	84	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$0.20-\$199	1	43	\$7,740	\$180
Free	34	1,053		
Total	35	1,096	\$7,740	\$7

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	30	97%	971	96%
Society/govt	3	100%	91	100%
Miscellaneous	2	100%	34	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	4	11.4%	
Grew 25-49.9%	3	8.6%	20.0%
Grew 10-24.99%	5	14.3%	34.3%
Even, $\pm$ 9.99%	12	34.3%	68.6%
Shrank 10-24.99%	5	14.3%	82.9%
Shrank 25-49.99%	3	8.6%	91.4%
Shrank 50%+	3	8.6%	

## Starting Date



## Subjects

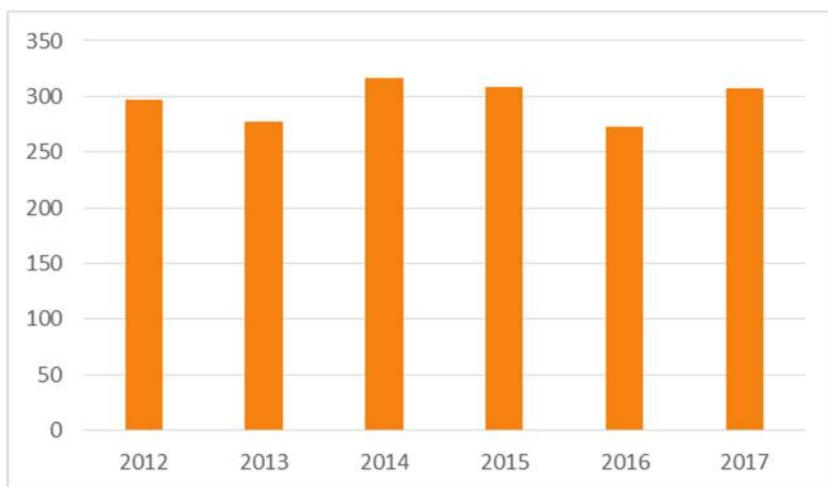
Subject	Journals	%Free	Articles	%Free
Medicine	6	100%	403	100%
Psychology	4	100%	114	100%
Anthropology	3	100%	82	100%
Agriculture	2	50%	79	46%
Education	3	100%	74	100%
Law	2	100%	63	100%
Biology	1	100%	53	100%
Language & Literature	2	100%	49	100%
Other Sciences	2	100%	47	100%
Economics	3	100%	46	100%
Miscellany	2	100%	43	100%
Zoology	2	100%	24	100%
Earth Sciences	1	100%	19	100%
Arts & Architecture	1	100%	0	
Ecology	1	100%	0	

# Uruguay

Fourteen OA journals, no fees, 307 articles in 2017, average 22 per journal.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	14	14	14	14	13	13
Articles	307	273	308	317	277	297



## Article Volume

	Journals	Articles
Med.: 60-149	2	70
Small: 20-59	8	191
Smallest: 1-19	4	46

**Publisher Category**

Category	Journals	Articles
Univ/college	11	245
Miscellaneous	2	45
Society/govt	1	17

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	3	21.4%	
Grew 25-49.9%	2	14.3%	35.7%
Grew 10-24.99%	2	14.3%	50.0%
Even, $\pm 9.99\%$	4	28.6%	78.6%
Shrank 10-24.99%	2	14.3%	84.9%
Shrank 25-49.99%	1	7.1%	

**Subjects**

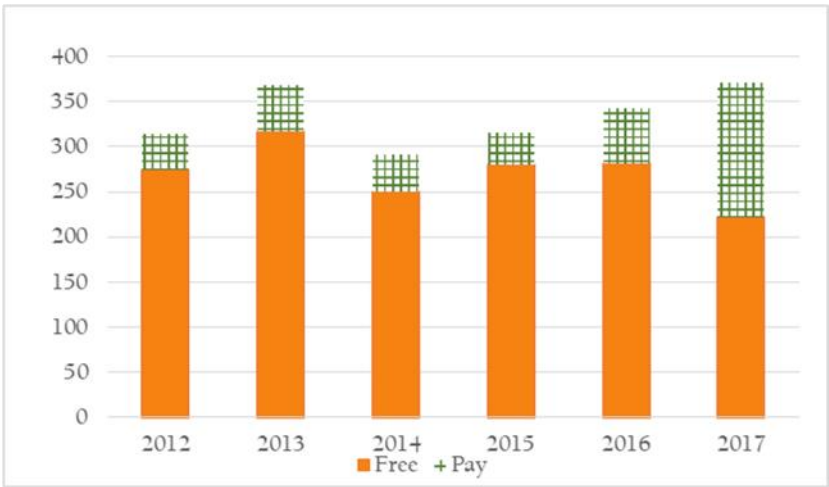
Subject	Journals	Articles
Medicine	2	70
Education	2	48
Psychology	2	48
Ecology	1	30
Law	1	24
Technology	1	21
Miscellany	1	20
Language & Literature	1	17
Political Science	1	15
Engineering	1	9
Library Science	1	5

# Venezuela

Twenty-two OA journals, 371 articles in 2017, 13 articles per no-fee journal, 50 articles per APC-charging journal. Average cost per article \$208 across APC-charging journals, \$84 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	20	21	20	19	18	17
%Free	85%	86%	90%	89%	89%	88%
Articles	371	342	315	291	368	314
%Free	60%	82%	89%	86%	86%	87%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	1	0%	110	0%
Small: 20-59	11	82%	188	79%
Smallest: 1-19	10	100%	73	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	40	\$18,000	\$450
\$0.20-\$199	1	110	\$13,200	\$120
Free	19	221		
Total	22	371	\$31,200	\$84

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	20	85%	357	58%
Society/govt	2	100%	14	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	18.2%	
Grew 10-24.99%	3	13.6%	31.8%
Even, $\pm$ 9.99%	5	22.7%	54.5%
Shrank 10-24.99%	3	13.6%	68.2%
Shrank 25-49.99%	2	9.1%	77.3%
Shrank 50%+	5	22.7%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellany	2	50%	116	5%
Sociology	4	100%	87	100%
Medicine	2	100%	38	100%
Economics	2	50%	27	22%
Education	2	100%	25	100%
Zoology	2	100%	21	100%
Media & Communications	1	0%	19	0%
Engineering	1	100%	11	100%
Chemistry	1	100%	10	100%
Mathematics	1	100%	9	100%
Other Sciences	1	100%	5	100%
Technology	1	100%	3	100%
Language & Literature	1	100%	0	
Philosophy	1	100%	0	

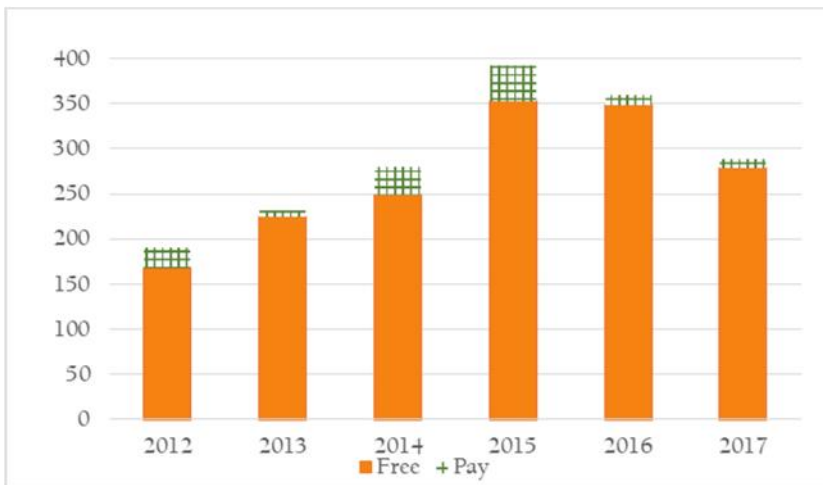


## Other Latin American Countries

In all, 23 journals, 289 articles in 2017, 16 articles average per no-fee journal, five per APC-charging. Average cost per article \$675 across APC-charging journals, \$23 across all journals.

### Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	19	21	22	20	16	13
%Free	89%	90%	91%	90%	94%	92%
Articles	289	360	392	280	231	190
%Free	97%	97%	90%	89%	97%	88%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	13	85%	191	95%
Smallest: 1-19	10	100%	98	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	1	5	\$5,000	\$1,000
\$0.20-\$199	1	5	\$1,750	\$350
Free	21	279		
Total	23	289	\$6,750	\$23

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	17	88%	187	95%
Society/govt	5	100%	86	100%
Miscellaneous	1	100%	16	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	3	13.0%	
Grew 25-49.9%	1	4.3%	17.4%
Grew 10-24.99%	4	17.4%	34.8%
Even, $\pm$ 9.99%	3	13.0%	47.8%
Shrank 10-24.99%	3	13.0%	60.9%
Shrank 25-49.99%	4	17.4%	78.3%
Shrank 50%+	5	21.7%	

## Subjects

Subject	Journals	%Free	Articles	%Free
Medicine	5	80%	89	94%
Education	2	100%	40	100%
Political Science	1	100%	26	100%
Economics	2	100%	21	100%
Agriculture	1	100%	20	100%
Law	1	100%	16	100%
Other Sciences	3	100%	15	100%
Biology	1	100%	14	100%
Zoology	1	100%	13	100%
Ecology	2	100%	11	100%
Anthropology	1	100%	10	100%
Engineering	1	100%	9	100%
Earth Sciences	1	0%	5	0%
Psychology	1	100%	0	

## Country Summaries

### Bahamas

One no-fee journal with ten articles in 2017.

### Barbados

One no-fee journal with 32 articles in 2017.

### Bolivia, Plurinational State of

Four no-fee journals, 57 articles in 2017.

### El Salvador

One no-fee journal with 26 articles in 2017.

**Guam**

One APC-charging journal with five articles in 2017.

**Guatemala**

Three no-fee journals, total of 15 articles in 2017.

**Jamaica**

One APC-charging journal with five articles in 2017.

**Nicaragua**

Four no-fee journals, total of twenty articles in 2017.

**Paraguay**

Five no-fee journals, 100 articles in 2017.

**Puerto Rico**

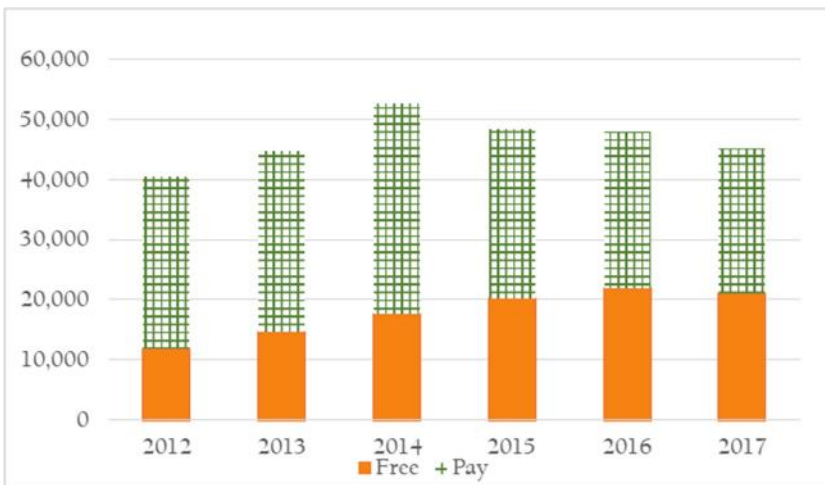
Two no-fee journals, 19 articles in 2017.

# Middle East

In all, 1,158 OA journals with 45,245 articles in 2017; average 40 articles per free (no-fee) journal and 56 per APC-charging. Average price per article \$1,142 across APC-charging journals, \$609 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	959	1,007	1,024	1,040	915	706
%Free	55%	54%	50%	45%	43%	45%
Articles	45,245	48,000	48,359	52,629	44,724	40,558
%Free	47%	46%	42%	33%	33%	29%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	15	20%	7,618	11%
Large: 150-599	71	30%	11,660	23%
Med.: 60-149	222	48%	12,146	59%
Small: 20-59	636	55%	12,765	75%
Smallest: 1-19	214	35%	1,056	85%

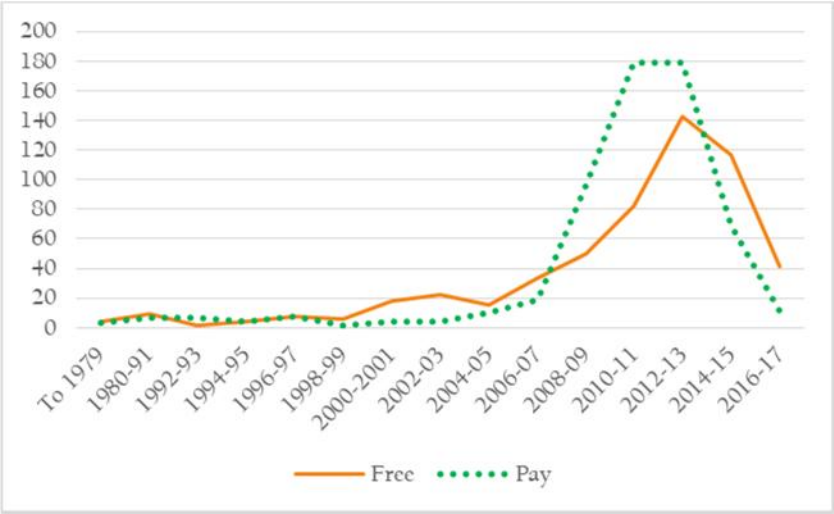
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	48	11,738	\$22,443,020	\$1,912
\$600-\$1,399	410	3,051	\$3,045,200	\$998
\$200-\$599	65	5,036	\$1,751,853	\$348
\$0.20-\$199	80	4,288	\$291,528	\$68
Free	555	21,132		
Total	1,158	45,245	\$27,531,601	\$609

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	543	7%	18,754	6%
Univ/college	420	85%	16,594	76%
Miscellaneous	102	80%	4,685	74%
Traditional	56	89%	3,323	93%
Society/govt	37	81%	1,889	48%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	150	13.0%	
Grew 25-49.9%	79	6.8%	19.8%
Grew 10-24.99%	84	7.3%	27.0%
Even, ±9.99%	253	21.8%	48.9%
Shrank 10-24.99%	111	9.6%	58.5%
Shrank 25-49.99%	144	12.4%	70.9%
Shrank 50%+	337	29.1%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	485	51%	18,784	53%
Biology	62	23%	3,708	17%
Mathematics	63	32%	2,368	25%
Engineering	70	40%	2,152	49%
Economics	47	64%	2,045	34%
Agriculture	45	38%	1,938	38%
Physics	32	19%	1,405	24%
Chemistry	47	30%	1,346	47%
Education	42	79%	1,283	80%
Language & Literature	15	87%	1,219	96%
Other Sciences	22	64%	1,174	75%
Computer Science	28	29%	1,023	15%
Earth Sciences	33	33%	1,003	40%
Miscellany	7	71%	1,000	24%
Zoology	29	31%	847	34%
Sociology	19	74%	805	55%
Technology	16	19%	793	9%
Ecology	26	46%	483	74%
Anthropology	17	71%	470	72%
Law	9	78%	256	86%
Religion	10	90%	241	94%
History	8	75%	186	67%
Arts & Architecture	4	75%	173	34%
Library Science	5	100%	135	100%
Psychology	5	100%	124	100%
Political Science	5	100%	107	100%
Media & Communications	4	100%	100	100%
Philosophy	3	100%	77	100%



**Countries**

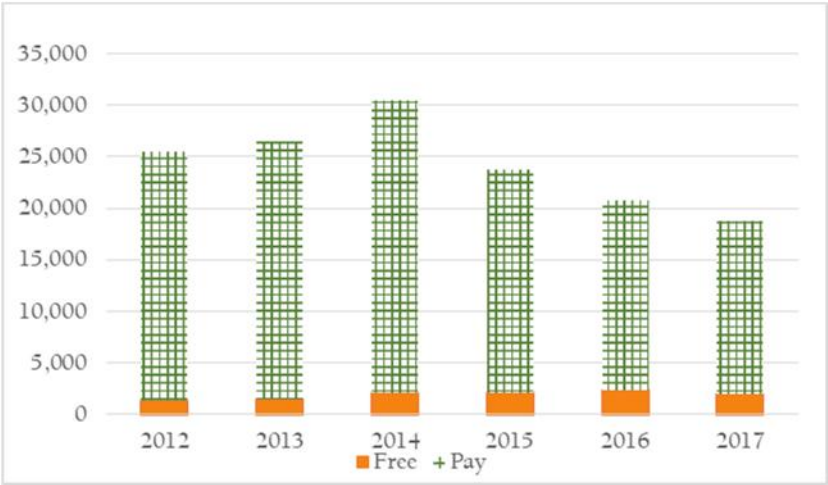
<b>Country</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Egypt	558	9%	18,748	10%
Iran, Islamic Republic of	316	84%	12,496	73%
Iraq	17	12%	1,380	6%
Israel	3	100%	82	100%
Jordan	2	100%	86	100%
Lebanon	1	100%	23	100%
Oman	5	100%	191	100%
Palestine, State of	1	0%	0	
Qatar	5	80%	111	91%
Saudi Arabia	14	93%	1,455	84%
Turkey	229	90%	10,393	80%
United Arab Emirates	6	0%	268	0%
Yemen	1	100%	12	100%

# Egypt

Egypt’s 558 OA journals had 18,748 articles in 2017, an average of 39 per active no-fee journal and 50 per APC-charging. Average cost per article: \$1,551 across APC-charging and \$1,389 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	384	415	465	531	479	356
%Free	13%	12%	11%	9%	8%	10%
Articles	18,748	20,725	23,702	30,521	26,501	25,548
%Free	10%	11%	9%	7%	6%	5%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	10	0%	5,486	0%
Large: 150-599	40	10%	6,576	6%
Med.: 60-149	100	13%	4,086	21%
Small: 20-59	267	10%	2,444	27%
Smallest: 1-19	141	5%	156	42%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	46	11,616	\$22,207,250	\$1,912
\$600-\$1,399	409	3,041	\$3,035,250	\$998
\$200-\$599	42	1,920	\$779,200	\$406
\$0.20-\$199	9	210	\$16,114	\$77
Free	52	1,961		
Total	558	18,748	\$26,037,814	\$1,389

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	515	4%	16,766	2%
Traditional	36	83%	1,824	87%
Miscellaneous	4	75%	89	88%
Society/govt	2	0%	51	0%
Univ/college	1	0%	18	0%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	58	10.4%	
Grew 25-49.9%	15	2.7%	13.1%
Grew 10-24.99%	18	3.2%	16.3%
Even, ±9.99%	75	13.4%	29.7%
Shrank 10-24.99%	42	7.5%	37.3%
Shrank 25-49.99%	74	13.3%	50.5%
Shrank 50%+	276	49.5%	

**Subjects**

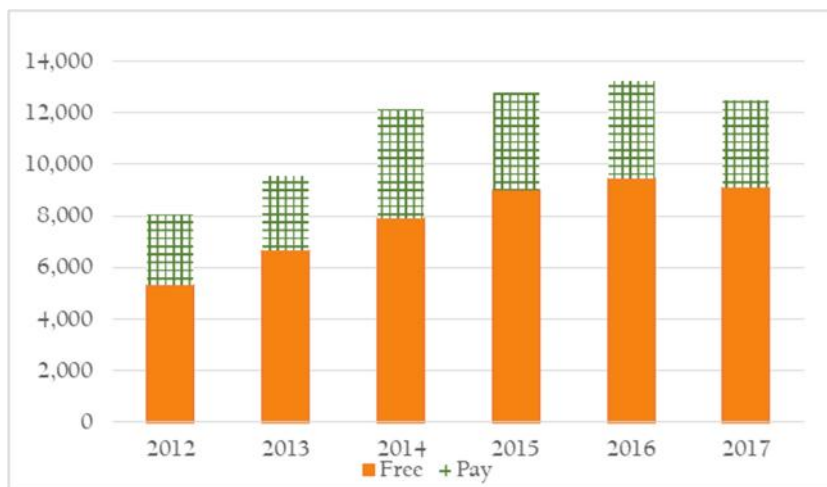
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	247	11%	7,510	14%
Biology	45	4%	3,072	2%
Mathematics	44	2%	1,848	4%
Physics	30	13%	1,296	18%
Engineering	44	14%	1,213	18%
Computer Science	19	5%	823	1%
Technology	12	0%	703	0%
Chemistry	31	0%	668	0%
Earth Sciences	22	18%	492	35%
Agriculture	16	6%	331	5%
Other Sciences	7	14%	236	21%
Sociology	3	0%	221	0%
Zoology	14	0%	167	0%
Ecology	12	8%	67	64%
Education	2	0%	34	0%
Economics	4	25%	22	59%
Library Science	1	100%	21	100%
Anthropology	3	0%	13	0%
Media & Communications	1	100%	11	100%
Law	1	0%	0	

# Iran, Islamic Republic of

Iran's 316 OA journals published 12,496 articles in 2017; active no-fee journals averaged 35 articles, APC-charging 69. Average cost per article: \$160 across APC-charging journals, \$44 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	307	312	295	268	224	178
%Free	84%	84%	83%	82%	81%	78%
Articles	12,496	13,217	12,796	12,125	9,557	8,045
%Free	73%	71%	70%	65%	70%	66%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	510	0%
Large: 150-599	14	57%	2,015	40%
Med.: 60-149	52	77%	3,251	78%
Small: 20-59	223	87%	6,371	85%
Smallest: 1-19	26	96%	349	96%

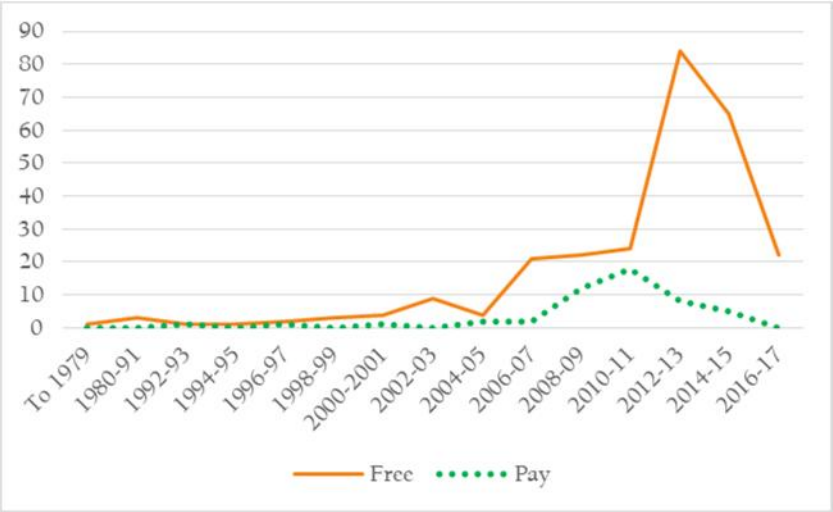
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	9	1,435	\$424,686	\$296
\$0.20-\$199	41	1,966	\$120,445	\$61
Free	266	9,095		
Total	316	12,496	\$545,131	\$44

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	271	85%	10,179	79%
Society/govt	19	79%	1,115	39%
Miscellaneous	22	73%	1,070	49%
Traditional	4	100%	132	100%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	24	7.6%	
Grew 25-49.9%	35	11.1%	18.7%
Grew 10-24.99%	27	8.5%	27.2%
Even, ±9.99%	129	40.8%	68.0%
Shrank 10-24.99%	43	13.6%	81.6%
Shrank 25-49.99%	36	11.4%	93.0%
Shrank 50%+	22	7.0%	



**Subjects**

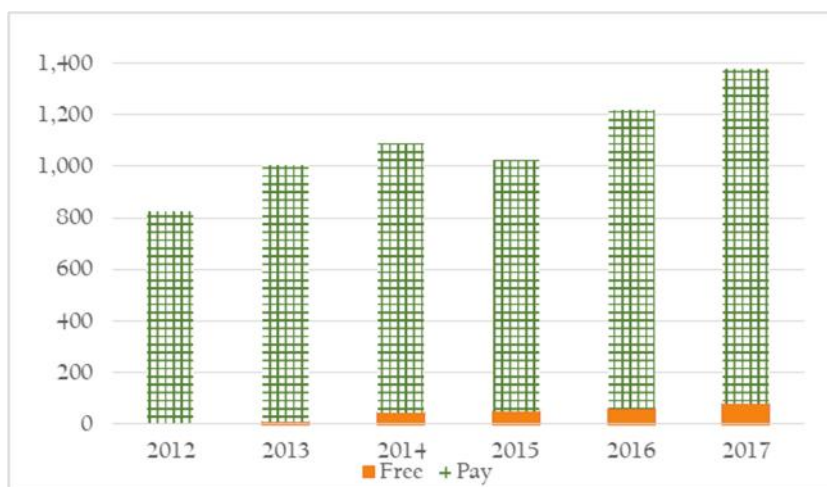
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	165	90%	7,788	74%
Agriculture	14	29%	593	28%
Earth Sciences	8	50%	428	34%
Economics	14	93%	372	91%
Engineering	13	100%	366	100%
Ecology	11	82%	359	77%
Zoology	7	57%	357	46%
Chemistry	11	100%	346	100%
Education	11	82%	308	72%
Biology	13	62%	281	68%
Mathematics	11	100%	229	100%
Language & Literature	7	71%	158	66%
Law	4	75%	126	71%
Sociology	3	100%	111	100%
Physics	2	100%	109	100%
Computer Science	4	100%	84	100%
Anthropology	2	50%	80	50%
Philosophy	3	100%	77	100%
Religion	4	75%	77	81%
Political Science	2	100%	56	100%
Library Science	1	100%	54	100%
Psychology	2	100%	50	100%
Technology	2	50%	37	49%
Miscellany	1	100%	30	100%
Arts & Architecture	1	100%	20	100%

# Iraq

Seventeen OA journals, 1,380 articles in 2017, average 39 articles per no-fee journal and 87 per APC-charging. Average cost \$80 across APC-charging journals, \$75 across all journals.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	17	17	16	15	11	11
%Free	12%	12%	13%	13%	9%	0%
Articles	1,380	1,220	1,024	1,090	1,004	823
%Free	6%	5%	5%	4%	1%	0%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	1	0%	751	0%
Large: 150-599	2	0%	112	0%
Med.: 60-149	6	17%	344	18%
Small: 20-59	6	0%	151	0%
Smallest: 1-19	2	50%	22	64%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	2	88	\$21,000	\$239
\$0.20-\$199	13	1,215	\$83,044	\$68
Free	2	77		
Total	17	1,380	\$104,044	\$75

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	15	13%	1,343	6%
Miscellaneous	2	0%	37	0%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	23.5%	
Grew 10-24.99%	1	5.9%	29.4%
Even, $\pm$ 9.99%	4	23.5%	52.9%
Shrank 10-24.99%	1	5.9%	58.8%
Shrank 25-49.99%	3	17.6%	76.5%
Shrank 50%+	4	23.5%	

**Subjects**

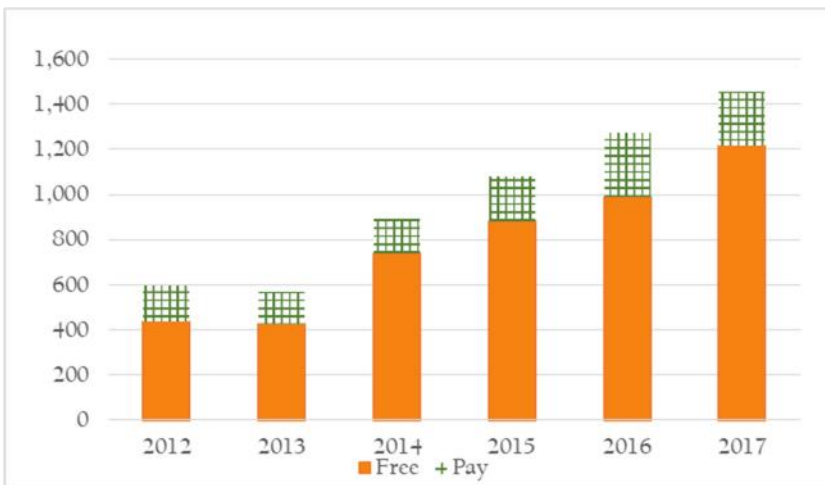
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellany	1	0%	751	0%
Agriculture	1	0%	116	0%
Other Sciences	2	50%	114	12%
Engineering	3	0%	92	0%
Medicine	2	0%	88	0%
Sociology	1	100%	63	100%
History	1	0%	50	0%
Zoology	2	0%	38	0%
Education	1	0%	25	0%
Ecology	1	0%	19	0%
Chemistry	1	0%	16	0%
Computer Science	1	0%	8	0%

# Saudi Arabia

Fourteen journals, 1,455 articles in 2017, average 94 articles per no-fee journal and 237 per APC-charging. Average article cost \$291 in the single APC-charging journal, \$47 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	14	14	14	13	10	10
%Free	93%	93%	93%	92%	90%	90%
Articles	1,455	1,271	1,079	892	569	594
%Free	84%	78%	82%	83%	75%	73%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	4	75%	884	73%
Med.: 60-149	4	100%	323	100%
Small: 20-59	6	100%	248	100%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$200-\$599	1	237	\$68,967	\$291
Free	13	1,218		
Total	14	1,455	\$68,967	\$47

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Traditional	12	100%	1,191	100%
Society/govt	1	0%	237	0%
Univ/college	1	100%	27	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	4	28.6%	
Grew 25-49.9%	2	14.3%	42.9%
Grew 10-24.99%	2	14.3%	57.2%
Even, $\pm$ 9.99%	2	14.3%	71.5%
Shrank 10-24.99%	1	7.1%	78.6%
Shrank 50%+	3	21.4%	

**Subjects**

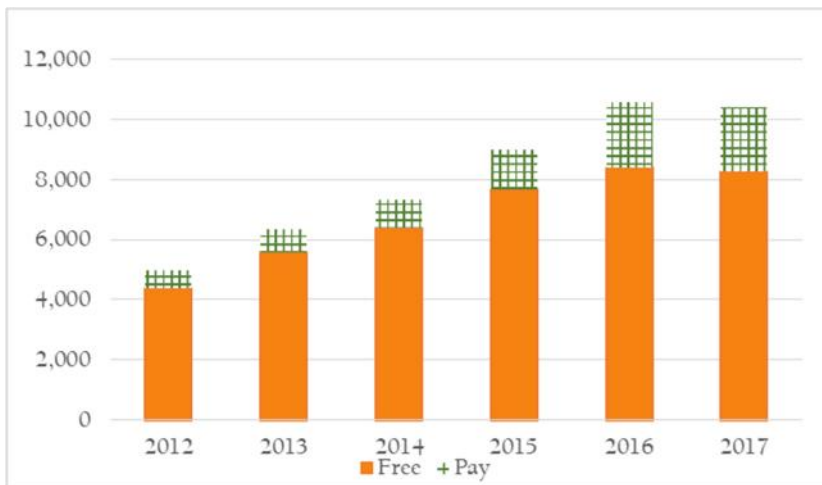
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	6	83%	712	67%
Biology	1	100%	278	100%
Chemistry	1	100%	183	100%
Other Sciences	1	100%	67	100%
Engineering	1	100%	58	100%
Agriculture	1	100%	55	100%
Computer Science	1	100%	53	100%
Law	1	100%	27	100%
Mathematics	1	100%	22	100%

# Turkey

Turkey's 229 OA journals published 10,393 articles in 2017, active no-fee journals averaging 43 articles, 92 for APC-charging. Average cost per article \$304 across APC-charging journals, \$62 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	214	226	210	192	171	133
%Free	89%	90%	90%	89%	88%	90%
Articles	10,393	10,591	8,984	7,317	6,351	4,960
%Free	80%	79%	86%	87%	88%	88%





**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	3	100%	871	100%
Large: 150-599	10	50%	2,065	37%
Med.: 60-149	53	87%	3,719	86%
Small: 20-59	123	93%	3,279	92%
Smallest: 1-19	40	93%	459	92%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	80	\$144,000	\$1,800
\$200-\$599	10	1,232	\$433,200	\$352
\$0.20-\$199	12	795	\$62,410	\$79
Free	206	8,286	\$0	\$0
Total	229	10,393	\$639,610	\$62

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	120	94%	4,784	88%
Miscellaneous	70	87%	3,288	83%
Open Access	25	72%	1,813	46%
Society/govt	13	100%	444	100%
Traditional	1	100%	64	100%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	57	24.9%	
Grew 25-49.9%	25	10.9%	35.8%
Grew 10-24.99%	31	13.5%	49.3%
Even, ±9.99%	40	17.5%	66.8%
Shrank 10-24.99%	22	9.6%	76.4%
Shrank 25-49.99%	24	10.5%	86.9%
Shrank 50%+	30	13.1%	

**Subjects**

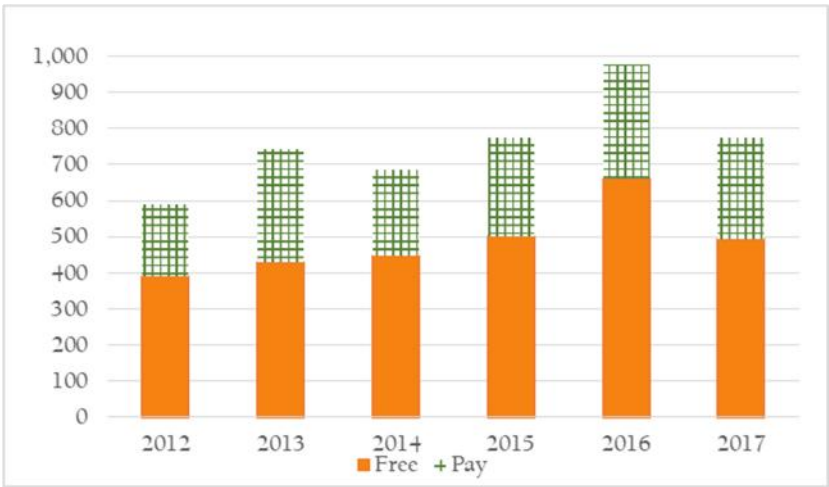
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	58	100%	2,354	100%
Economics	27	59%	1,497	23%
Language & Literature	6	100%	1,023	100%
Education	28	86%	916	88%
Agriculture	12	83%	831	59%
Other Sciences	9	100%	708	100%
Engineering	7	100%	405	100%
Sociology	11	91%	389	69%
Anthropology	11	91%	365	78%
Zoology	6	83%	285	45%
Mathematics	7	100%	269	100%
Miscellany	4	100%	214	100%
Religion	6	100%	164	100%
Arts & Architecture	3	67%	153	25%
History	7	86%	136	92%
Chemistry	3	67%	133	75%
Media & Communications	3	100%	89	100%
Biology	3	100%	77	100%
Psychology	3	100%	74	100%
Law	2	100%	68	100%
Library Science	3	100%	60	100%
Earth Sciences	2	100%	58	100%
Technology	2	100%	53	100%
Political Science	3	100%	51	100%
Ecology	1	100%	12	100%
Computer Science	2	100%	9	100%

# Other Middle East Countries

Twenty-four OA journals, 773 articles in 2017, average 31 articles per no-fee journal, 35 per APC-charging. Average cost per article \$489 among APC-charging journals, \$176 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	23	23	24	21	20	18
%Free	70%	70%	67%	71%	75%	78%
Articles	773	976	774	684	742	588
%Free	64%	68%	65%	65%	58%	66%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	100%	8	100%
Med.: 60-149	7	43%	423	49%
Small: 20-59	11	73%	272	79%
Smallest: 1-19	5	80%	70	93%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	42	\$91,770	\$2,185
\$600-\$1.399	1	10	\$9,950	\$995
\$200-\$599	1	124	\$24,800	\$200
\$0.20-\$199	5	102	\$9,515	\$93
Free	16	495		
Total	24	773	\$136,035	\$176

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	12	75%	243	94%
Miscellaneous	4	50%	201	56%
Open Access	3	0%	175	0%
Traditional	3	100%	112	100%
Society/govt	2	100%	42	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	3	12.5%	
Grew 25-49.9%	2	8.3%	20.8%
Grew 10-24.99%	5	20.8%	41.6%
Even, $\pm$ 9.99%	3	12.5%	54.1%
Shrank 25-49.99%	7	29.2%	83.3%
Shrank 50%+	4	16.7%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	7	86%	332	87%
Economics	2	0%	154	0%
Other Sciences	3	67%	49	80%
Computer Science	1	0%	46	0%
Language & Literature	2	100%	38	100%
Law	1	100%	35	100%
Ecology	1	100%	26	100%
Earth Sciences	1	100%	25	100%
Sociology	1	0%	21	0%
Engineering	2	50%	18	100%
Agriculture	1	100%	12	100%
Anthropology	1	100%	12	100%
Miscellany	1	0%	5	0%

**Country Summaries****Israel**

Three no-fee journals, 82 articles in 2017.

**Jordan**

Two no-free journals, 86 articles in 2017.

**Lebanon**

One no-fee journal with 23 articles in 2017.

**Palestine, State of**

One APC-charging journal with no articles in 2017.

**Qatar**

Five OA journals (one with fees), 111 articles in 2017.

**United Arab Emirates**

Six APC-charging journals with 268 articles in 2017.

**Yemen**

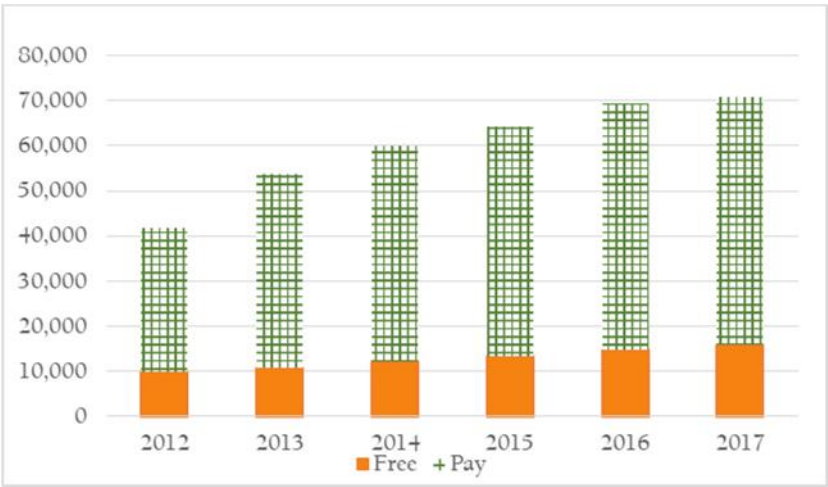
One no-fee journal with twelve articles in 2017.

# Pacific/English

Total of 753 OA journals with 70,874 articles in 2017. Average 34 articles per no-fee journal, 234 per APC-charging. Average article cost \$1,675 across APC-charging journals, \$1,300 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	705	721	691	634	549	473
%Free	67%	68%	70%	70%	75%	80%
Articles	70,874	69,386	64,388	59,994	53,786	41,696
%Free	22%	21%	20%	20%	20%	23%





Article Volume

	Journals	%Free	Articles	%Free
Largest: 600+	18	11%	40,032	4%
Large: 150-599	52	29%	11,609	26%
Med.: 60-149	107	44%	7,899	38%
Small: 20-59	349	74%	9,439	70%
Smallest: 1-19	227	83%	1,895	84%

APC Levels and Revenue

	Journals	Articles	Revenue	\$/article
\$1,400+	113	44,438	\$83,587,450	\$1,881
\$600-\$1,399	49	6,588	\$7,047,894	\$1,070
\$200-\$599	52	3,411	\$1,412,383	\$414
\$0.20-\$199	28	549	\$53,059	\$97
Free	511	15,888		
Total	753	70,874	\$92,100,786	\$1,300

Publisher Category

Category	Journals	%Free	Articles	%Free
Open Access	80	25%	34,127	2%
Society/govt	125	69%	13,581	28%
Traditional	105	8%	10,487	4%
Univ/college	289	94%	6,715	91%
Miscellaneous	154	82%	5,964	82%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	181	24.0%	
Grew 25-49.9%	89	11.8%	35.9%
Grew 10-24.99%	77	10.2%	46.1%
Even, ±9.99%	145	19.3%	65.3%
Shrank 10-24.99%	79	10.5%	75.8%
Shrank 25-49.99%	88	11.7%	87.5%
Shrank 50%+	94	12.5%	

Countries

Country	Journals	%Free	Articles	%Free
Australia	73	86%	2,796	63%
Canada	122	85%	4,197	64%
New Zealand	13	92%	172	93%
United States	545	61%	63,709	18%

**Subjects**

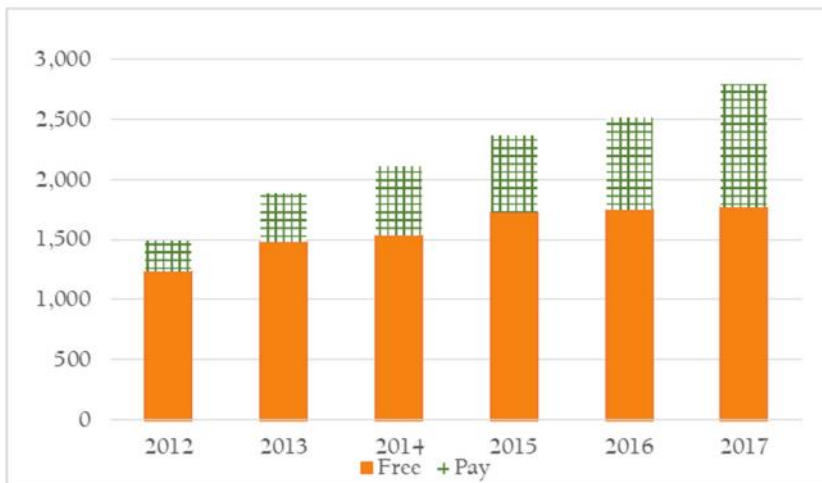
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Other Sciences	11	45%	23,548	0%
Medicine	184	32%	19,844	18%
Biology	34	26%	5,468	4%
Engineering	10	60%	2,590	4%
Computer Science	20	70%	1,806	39%
Ecology	27	48%	1,620	26%
Physics	8	25%	1,537	18%
Education	74	92%	1,532	89%
Language & Literature	57	95%	1,464	81%
Chemistry	5	40%	1,451	17%
Sociology	44	93%	1,327	90%
Mathematics	16	81%	1,028	91%
History	19	100%	908	100%
Anthropology	31	87%	857	82%
Library Science	29	97%	686	96%
Technology	10	60%	621	58%
Economics	27	81%	550	78%
Agriculture	11	36%	507	21%
Miscellany	13	92%	504	38%
Media & Communications	17	100%	476	100%
Arts & Architecture	23	96%	464	79%
Zoology	5	20%	462	10%
Philosophy	18	100%	375	100%
Political Science	15	93%	368	98%
Psychology	14	57%	299	51%
Earth Sciences	9	56%	222	57%
Law	13	100%	183	100%
Religion	9	100%	177	100%

# Australia

Australia's 73 OA journals published 2,796 articles in 2017, averaging 32 per no-fee journal and 103 per APC-charging. Average article cost: \$1,300 across APC-charging journals, \$477 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	66	67	69	63	57	46
%Free	85%	85%	86%	84%	84%	91%
Articles	2,796	2,519	2,366	2,108	1,887	1,493
%Free	63%	69%	73%	73%	78%	82%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	5	60%	1,281	47%
Med.: 60-149	5	60%	395	54%
Small: 20-59	36	89%	911	85%
Smallest: 1-19	27	93%	209	87%

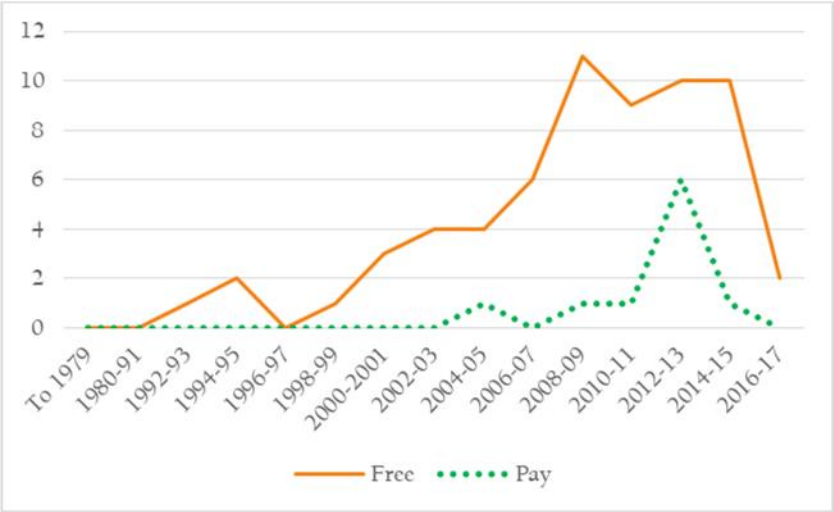
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	3	645	\$1,243,490	\$1,928
\$600-\$1,399	1	12	\$12,360	\$1,030
\$200-\$599	2	235	\$62,280	\$265
\$0.20-\$199	4	135	\$16,825	\$125
Free	63	1,769		
Total	73	2,796	\$1,334,955	\$477

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	10	30%	1,003	17%
Univ/college	40	100%	656	100%
Traditional	4	50%	185	73%
Society/govt	5	100%	113	100%
Miscellaneous	14	93%	839	83%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	16	21.9%	
Grew 25-49.9%	6	8.2%	30.1%
Grew 10-24.99%	10	13.7%	43.8%
Even, ±9.99%	9	12.3%	56.2%
Shrank 10-24.99%	14	19.2%	75.3%
Shrank 25-49.99%	9	12.3%	87.7%
Shrank 50%+	9	12.3%	

**Subjects**

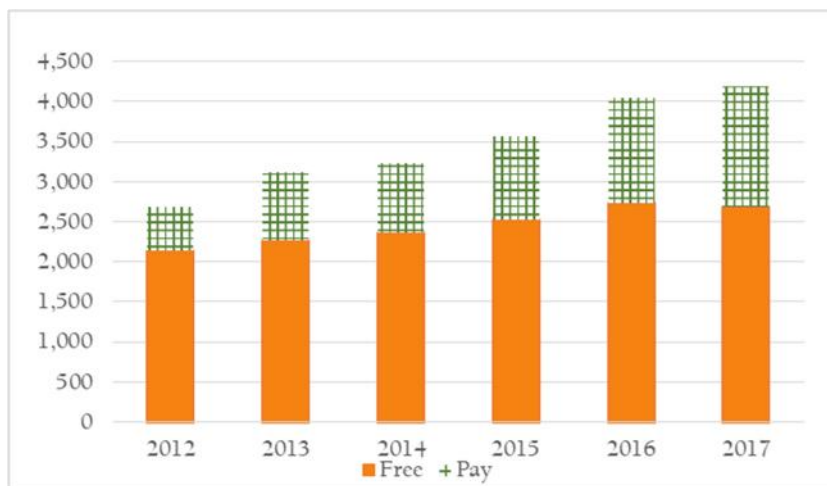
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	9	44%	875	22%
Language & Literature	7	71%	525	50%
Computer Science	3	100%	273	100%
Mathematics	1	100%	224	100%
Education	9	78%	172	64%
Media & Communications	5	100%	124	100%
Sociology	5	100%	95	100%
Anthropology	6	83%	93	73%
Philosophy	1	100%	67	100%
Law	4	100%	65	100%
Economics	4	100%	49	100%
Political Science	3	100%	49	100%
History	5	100%	37	100%
Earth Sciences	2	100%	36	100%
Engineering	2	100%	32	100%
Religion	1	100%	29	100%
Arts & Architecture	3	100%	24	100%
Miscellany	2	100%	23	100%
Biology	1	100%	4	100%

# Canada

Canada's 122 OA journals published 4,197 articles in 2017; average 28 articles per no-fee journal, 89 per APC-charging. Average cost per article: \$1,815 across APC-charging journals and \$654 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	114	119	116	109	103	93
%Free	85%	86%	85%	85%	86%	91%
Articles	4,197	4,042	3,571	3,230	3,120	2,690
%Free	64%	68%	71%	73%	73%	80%





**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	7	29%	1,384	18%
Med.: 60-149	14	86%	823	85%
Small: 20-59	63	90%	1,642	87%
Smallest: 1-19	38	87%	348	89%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	8	1,131	\$2,499,750	\$2,210
\$600-\$1,399	3	189	\$182,675	\$967
\$200-\$599	7	192	\$62,471	\$325
Free	104	2,685	\$0	\$0
Total	122	4,197	\$2,744,896	\$654

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	14	43%	1,309	14%
Univ/college	57	95%	1,136	98%
Miscellaneous	32	84%	880	66%
Society/govt	19	89%	872	93%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	27	22.1%	
Grew 25-49.9%	11	9.0%	31.1%
Grew 10-24.99%	14	11.5%	42.6%
Even, ±9.99%	28	23.0%	65.6%
Shrank 10-24.99%	9	7.4%	73.0%
Shrank 25-49.99%	16	13.1%	86.1%
Shrank 50%+	17	13.9%	

**Subjects**

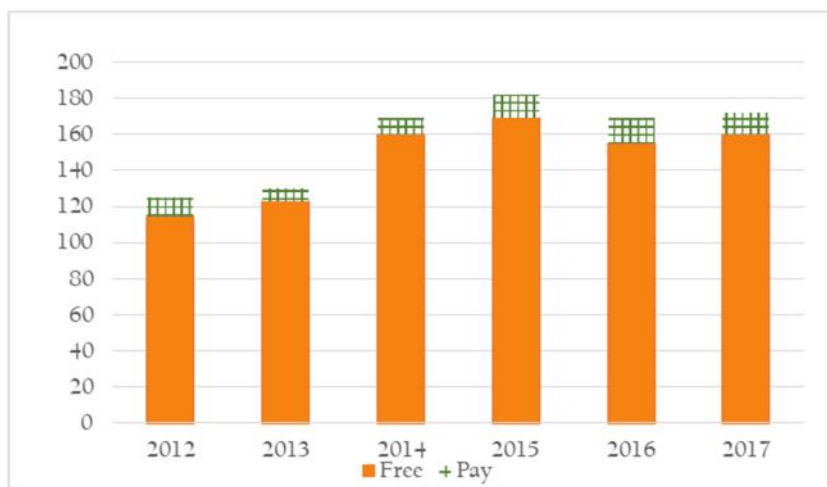
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	20	70%	1,384	27%
Ecology	6	33%	320	15%
Technology	3	67%	304	97%
Education	16	100%	302	100%
Economics	7	100%	235	100%
Sociology	7	100%	232	100%
Media & Communications	5	100%	174	100%
Language & Literature	11	100%	170	100%
Mathematics	4	75%	163	56%
Library Science	3	100%	157	100%
Philosophy	7	100%	116	100%
Computer Science	4	50%	110	33%
Anthropology	4	100%	90	100%
Psychology	3	33%	81	17%
History	4	100%	58	100%
Earth Sciences	1	100%	55	100%
Other Sciences	2	100%	40	100%
Biology	2	100%	38	100%
Arts & Architecture	2	100%	37	100%
Law	3	100%	36	100%
Engineering	1	100%	28	100%
Chemistry	1	100%	20	100%
Agriculture	2	50%	13	100%
Miscellany	2	100%	13	100%
Zoology	1	0%	11	0%
Political Science	1	100%	10	100%

# New Zealand

New Zealand's thirteen OA journals published 172 articles in 2017, averaging 15 articles per no-fee journal and 12 per fee-charging. Average cost per article: \$1,200 in the one APC-charging journal, \$84 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	12	13	13	13	11	12
%Free	92%	92%	92%	92%	91%	92%
Articles	172	169	182	169	130	125
%Free	93%	92%	93%	95%	95%	91%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	6	100%	116	100%
Smallest: 1-19	7	86%	56	79%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	12	\$14,400	\$1,200
Free	12	160		
Total	13	172	\$14,400	\$84

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	4	100%	67	100%
Society/govt	4	100%	67	100%
Miscellaneous	4	100%	26	100%
Open Access	1	0%	12	0%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	30.8%	
Grew 10-24.99%	1	7.7%	38.5%
Even, $\pm$ 9.99%	1	7.7%	46.2%
Shrank 10-24.99%	1	7.7%	53.9%
Shrank 25-49.99%	4	30.8%	84.6%
Shrank 50%+	2	15.4%	

**Subjects**

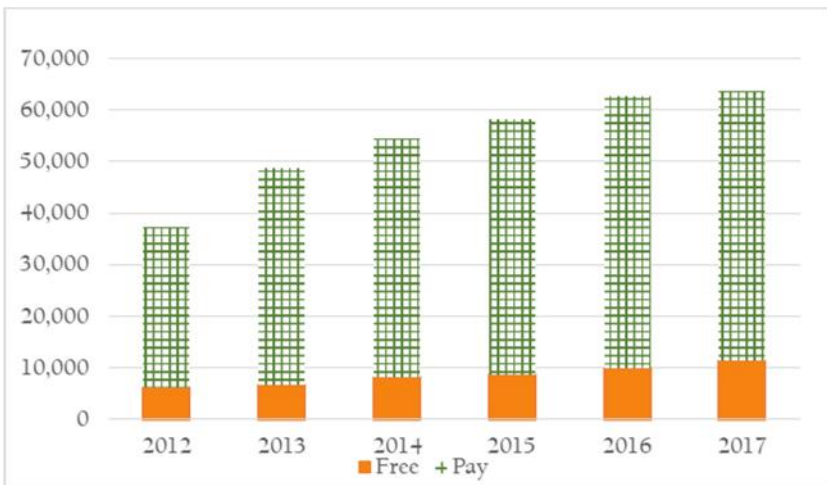
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Education	3	100%	74	100%
Biology	1	100%	22	100%
Arts & Architecture	1	100%	19	100%
Mathematics	1	100%	15	100%
Psychology	1	100%	15	100%
Economics	3	100%	12	100%
Medicine	1	0%	12	0%
Computer Science	1	100%	3	100%
Religion	1	100%	0	

# United States

In all, 545 OA journals and 63,709 articles in 2017, averaging 37 articles per non-fee journal, 237 per APC-charging. Average cost per article: \$1,678 across APC-charging journals, \$1,381 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	513	522	493	449	378	322
%Free	60%	61%	63%	64%	71%	74%
Articles	63,709	62,656	58,269	54,487	48,649	37,388
%Free	18%	16%	15%	15%	14%	17%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	18	11%	40,032	4%
Large: 150-599	40	25%	8,944	24%
Med.: 60-149	88	36%	6,681	31%
Small: 20-59	244	67%	6,770	63%
Smallest: 1-19	155	81%	1,282	83%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	102	42,662	\$79,844,210	\$1,872
\$600-\$1,399	44	6,375	\$6,838,459	\$1,073
\$200-\$599	43	2,984	\$1,287,632	\$432
\$0.20-\$199	24	414	\$36,234	\$88
Free	332	11,274		
Total	545	63,709	\$88,006,535	\$1,381

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	55	20%	31,803	1%
Society/govt	97	62%	12,529	22%
Traditional	101	6%	10,302	3%
Univ/college	188	92%	4,856	89%
Miscellaneous	104	79%	4,219	86%



### Starting Date



### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	134	24.6%	
Grew 25-49.9%	72	13.2%	37.8%
Grew 10-24.99%	52	9.5%	47.3%
Even, ±9.99%	107	19.6%	67.0%
Shrank 10-24.99%	55	10.1%	77.1%
Shrank 25-49.99%	59	10.8%	87.9%
Shrank 50%+	66	12.1%	

**Subjects**

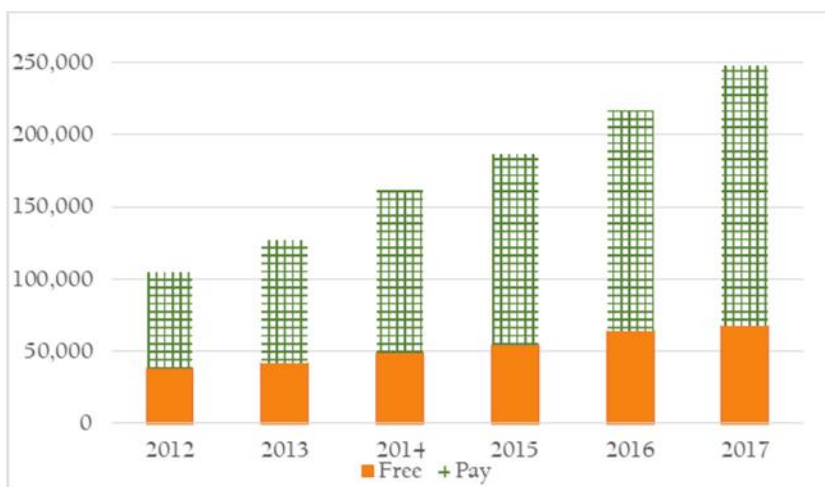
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Other Sciences	9	33%	23,508	0%
Medicine	154	27%	17,573	17%
Biology	30	17%	5,404	3%
Engineering	7	43%	2,530	2%
Physics	8	25%	1,537	18%
Chemistry	4	25%	1,431	16%
Computer Science	12	67%	1,420	27%
Ecology	21	52%	1,300	29%
Sociology	32	91%	1,000	87%
Education	46	91%	984	89%
History	10	100%	813	100%
Language & Literature	39	97%	769	98%
Anthropology	21	86%	674	81%
Mathematics	10	80%	626	96%
Library Science	26	96%	529	95%
Agriculture	9	33%	494	19%
Miscellany	9	89%	468	34%
Zoology	4	25%	451	10%
Arts & Architecture	17	94%	384	75%
Technology	7	57%	317	21%
Political Science	11	91%	309	97%
Economics	13	62%	254	53%
Psychology	10	60%	203	61%
Philosophy	10	100%	192	100%
Media & Communications	7	100%	178	100%
Religion	7	100%	148	100%
Earth Sciences	6	33%	131	27%
Law	6	100%	82	100%

# Western Europe

Total of 3,153 OA journals and 248,034 articles in 2017. Average 40 articles per no-fee journal, 138 per APC-charging. Average cost per article \$1,960 across APC-charging journals, \$1,431 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	3,010	3,049	2,921	2,687	2,347	2,093
%Free	57%	57%	57%	58%	59%	60%
Articles	248,034	216,932	186,579	161,839	127,153	105,004
%Free	27%	29%	29%	30%	32%	36%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	66	17%	106,532	15%
Large: 150-599	253	17%	55,366	13%
Med.: 60-149	557	39%	39,141	34%
Small: 20-59	1,528	67%	40,364	66%
Smallest: 1-19	751	69%	6,631	72%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	771	141,967	\$323,512,171	\$2,279
\$600-\$1,399	339	25,504	\$26,730,653	\$1,048
\$200-\$599	184	9,962	\$4,376,154	\$439
\$0.20-\$199	51	2,883	\$264,235	\$92
Free	1,810	67,718		
Total	3,155	248,034	\$354,883,213	\$1,431

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	876	24%	103,072	8%
Traditional	739	31%	91,128	26%
Univ/college	978	92%	32,115	69%
Miscellaneous	375	82%	13,231	65%
Society/govt	187	88%	8,488	66%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	653	20.7%	
Grew 25-49.9%	336	10.6%	31.3%
Grew 10-24.99%	350	11.1%	42.4%
Even, ±9.99%	689	21.8%	64.3%
Shrank 10-24.99%	403	12.8%	77.1%
Shrank 25-49.99%	360	11.4%	88.5%
Shrank 50%+	364	11.5%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	837	25%	74,985	14%
Other Sciences	43	51%	36,324	3%
Biology	159	13%	19,760	4%
Physics	61	34%	15,129	51%
Ecology	89	43%	12,290	19%
Technology	58	45%	10,864	57%
Chemistry	46	30%	10,086	22%
Earth Sciences	131	51%	8,523	34%
Agriculture	76	45%	7,451	15%
Engineering	58	34%	5,754	16%
Language & Literature	230	95%	4,996	94%
Education	154	88%	4,305	79%
Anthropology	163	90%	4,168	84%
Sociology	127	83%	3,788	77%
Computer Science	77	43%	3,748	18%
Psychology	55	67%	3,737	21%
Zoology	63	48%	3,011	24%
Arts & Architecture	117	90%	2,764	80%
History	106	99%	2,413	100%
Mathematics	53	53%	2,230	27%
Media & Communications	71	92%	2,218	90%
Economics	90	77%	1,814	66%
Political Science	71	90%	1,634	90%
Law	64	91%	1,533	90%
Philosophy	57	93%	1,419	92%
Miscellany	36	86%	1,176	75%
Religion	28	86%	1,094	92%
Library Science	35	94%	820	97%

**Countries**

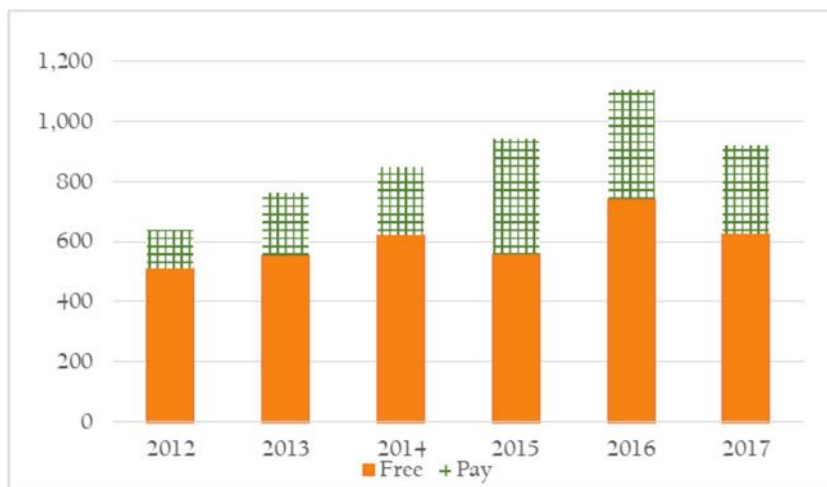
<b>Country</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Austria	40	85%	920	68%
Belgium	33	94%	602	93%
Denmark	18	94%	229	84%
Finland	19	84%	532	72%
France	194	90%	14,480	95%
Germany	271	63%	16,699	58%
Greece	30	70%	1,171	67%
Iceland	6	100%	313	100%
Ireland	14	86%	341	60%
Italy	283	82%	8,020	78%
Luxembourg	2	100%	16	100%
Malta	2	100%	25	100%
Netherlands	217	56%	15,789	44%
Norway	70	91%	1,216	93%
Portugal	85	88%	2,485	74%
Spain	576	96%	16,332	94%
Sweden	48	60%	1,890	37%
Switzerland	272	28%	59,455	6%
United Kingdom	975	18%	107,519	5%

# Austria

Forty OA journals, 920 articles in 2017, average 20 per no-fee journal, 49 per APC-charging. Average cost per article: \$677 across APC-charging journals, \$215 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	38	37	36	29	22	21
%Free	84%	84%	83%	83%	82%	86%
Articles	920	1,106	943	847	761	638
%Free	68%	67%	59%	74%	73%	80%





**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	7	43%	328	32%
Small: 20-59	19	89%	460	85%
Smallest: 1-19	14	100%	132	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	1	63	\$92,295	\$1,465
\$600-\$1.399	3	120	\$74,853	\$624
\$200-\$599	1	35	\$16,695	\$477
\$0.20-\$199	1	74	\$13,838	\$187
Free	34	628		
Total	40	920	\$197,681	\$215

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Miscellaneous	15	67%	426	39%
Univ/college	15	93%	273	88%
Society/govt	6	100%	163	100%
Traditional	4	100%	58	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	5	12.5%	
Grew 25-49.9%	3	7.5%	20.0%
Grew 10-24.99%	4	10.0%	30.0%
Even, $\pm$ 9.99%	12	30.0%	60.0%
Shrank 10-24.99%	4	10.0%	70.0%
Shrank 25-49.99%	7	17.5%	87.5%
Shrank 50%+	5	12.5%	

Starting Date



Subjects

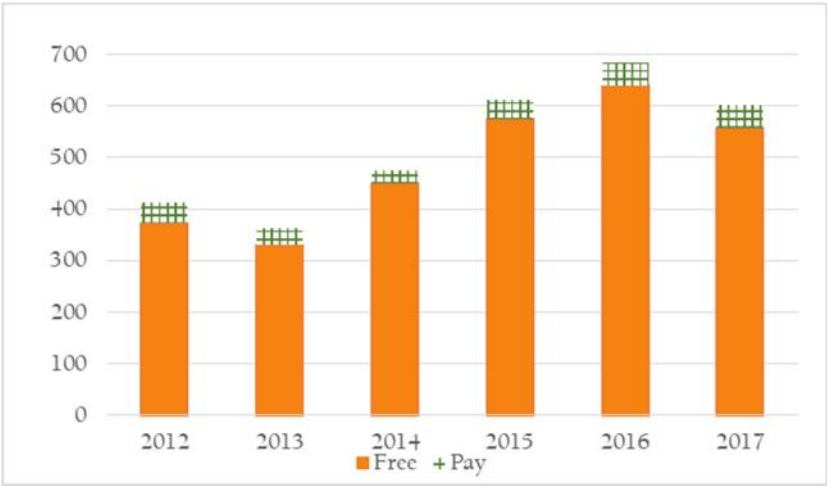
Subject	Journals	%Free	Articles	%Free
Earth Sciences	4	25%	143	17%
Political Science	7	100%	109	100%
Medicine	5	80%	94	62%
Education	2	100%	84	100%
Economics	1	0%	74	0%
Media & Communications	2	100%	71	100%
Biology	1	0%	63	0%
History	2	100%	51	100%
Religion	1	100%	45	100%
Philosophy	3	100%	37	100%
Sociology	2	100%	30	100%
Mathematics	1	100%	23	100%
Anthropology	1	100%	22	100%
Agriculture	1	100%	20	100%
Law	1	100%	16	100%
Arts & Architecture	3	100%	12	100%
Language & Literature	1	100%	12	100%
Ecology	1	100%	9	100%
Engineering	1	100%	5	100%

# Belgium

Thirty-three OA journals, 602 articles in 2017; average 19 articles per no-fee journal, 23 per APC-charging. Average cost per article \$666 across APC-charging journals, \$50 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	32	33	31	28	23	19
%Free	94%	94%	97%	96%	96%	95%
Articles	602	684	611	475	362	412
%Free	93%	93%	94%	95%	91%	91%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	26	96%	538	93%
Smallest: 1-19	7	86%	64	91%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	2	45	\$29,976	\$666
Free	31	557		
Total	33	602	\$29,976	\$50

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	14	100%	278	100%
Society/govt	14	93%	244	84%
Miscellaneous	5	80%	80	93%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	12.1%	
Grew 25-49.9%	1	3.0%	15.2%
Grew 10-24.99%	3	9.1%	24.2%
Even, $\pm$ 9.99%	6	18.2%	42.4%
Shrank 10-24.99%	7	21.2%	63.6%
Shrank 25-49.99%	7	21.2%	84.8%
Shrank 50%+	5	15.2%	

## Starting Date



## Subjects

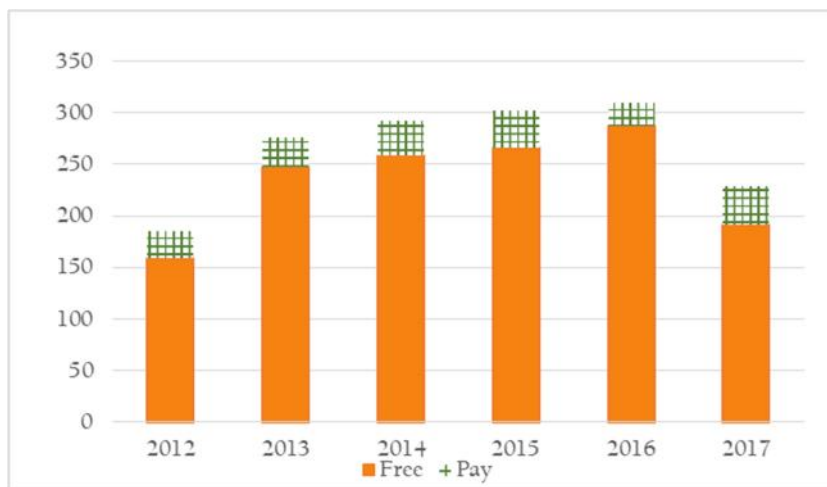
Subject	Journals	%Free	Articles	%Free
Language & Literature	6	100%	142	100%
Technology	6	100%	93	100%
Agriculture	2	50%	64	39%
Medicine	2	100%	56	100%
Education	2	100%	40	100%
Earth Sciences	2	100%	39	100%
Computer Science	3	100%	30	100%
Media & Communications	1	100%	30	100%
Economics	2	100%	29	100%
Arts & Architecture	2	100%	25	100%
Library Science	1	100%	15	100%
Zoology	1	100%	13	100%
Political Science	1	100%	11	100%
Sociology	1	100%	9	100%
Ecology	1	0%	6	0%

# Denmark

Eighteen OA journals, 229 articles in 2017; average 14 articles per no-fee journal, 37 per APC-charging. Average cost per article \$324 for the single APC-charging journal and \$52 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	15	17	17	16	14	12
%Free	93%	94%	94%	94%	93%	92%
Articles	229	310	302	292	276	185
%Free	84%	93%	88%	89%	90%	86%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Small: 20-59	10	90%	192	81%
Smallest: 1-19	8	100%	37	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$200-\$599	1	37	\$11,988	\$324
Free	17	192		
Total	18	229	\$11,988	\$52

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	11	91%	145	74%
Miscellaneous	5	100%	56	100%
Society/govt	1	100%	17	100%
Open Access	1	100%	11	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	11.1%	
Even, $\pm 9.99\%$	2	11.1%	22.2%
Shrank 10-24.99%	5	27.8%	50.0%
Shrank 25-49.99%	3	16.7%	66.7%
Shrank 50%+	6	33.3%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Education	3	100%	44	100%
Sociology	2	50%	37	0%
Media & Communications	2	100%	32	100%
History	1	100%	30	100%
Earth Sciences	1	100%	17	100%
Political Science	1	100%	16	100%
Philosophy	1	100%	14	100%
Anthropology	2	100%	11	100%
Ecology	1	100%	11	100%
Law	1	100%	11	100%
Economics	1	100%	4	100%
Psychology	1	100%	2	100%
Medicine	1	100%	0	

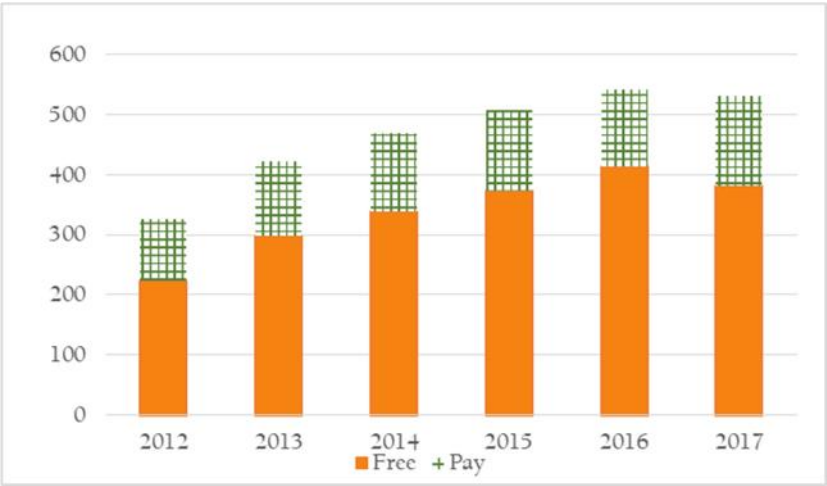


# Finland

Nineteen OA journals, 532 articles in 2017; average 23 articles per no-fee journal and 50 per APC-charging. Average cost per article: \$772 across APC-charging journals, \$218 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	18	19	19	18	18	16
%Free	83%	84%	84%	83%	83%	81%
Articles	532	542	507	468	422	326
%Free	72%	76%	74%	72%	71%	68%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Med.: 60-149	3	100%	192	100%
Small: 20-59	10	70%	294	49%
Smallest: 1-19	6	100%	46	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1,399	2	106	\$91,660	\$865
\$200-\$599	1	44	\$24,200	\$550
Free	16	382		
Total	19	532	\$115,860	\$218

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	11	73%	365	59%
Society/govt	5	100%	95	100%
Miscellaneous	3	100%	72	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	2	10.5%	
Grew 25-49.9%	3	15.8%	26.3%
Grew 10-24.99%	1	5.3%	31.6%
Even, $\pm$ 9.99%	5	26.3%	57.9%
Shrank 10-24.99%	4	21.1%	78.9%
Shrank 25-49.99%	3	15.8%	94.7%
Shrank 50%+	1	5.3%	

**Subjects**

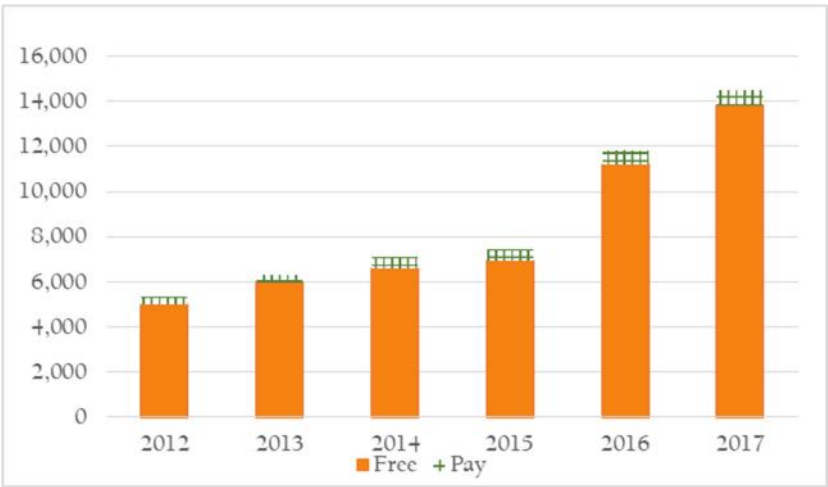
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Biology	2	0%	101	0%
Anthropology	4	100%	78	100%
Earth Sciences	3	67%	78	37%
Technology	1	100%	73	100%
Mathematics	1	100%	64	100%
Language & Literature	2	100%	40	100%
History	1	100%	24	100%
Agriculture	1	100%	23	100%
Philosophy	1	100%	19	100%
Religion	1	100%	16	100%
Political Science	1	100%	10	100%
Sociology	1	100%	6	100%

# France

France’s 194 OA journals published 14,480 articles in 2017, an average of 93 articles per no-fee journal and 34 per APC-charging. Average article cost: \$1,072 across APC journals, \$51 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	169	182	185	183	168	163
%Free	88%	89%	90%	91%	92%	94%
Articles	14,480	11,850	7,464	7,080	6,323	5,309
%Free	95%	94%	92%	93%	94%	94%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	4	100%	9,065	100%
Large: 150-599	4	100%	838	100%
Med.: 60-149	29	83%	1,668	80%
Small: 20-59	96	90%	2,452	87%
Smallest: 1-19	61	92%	457	91%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	12	327	\$601,026	\$1,838
\$600-\$1,399	1	39	\$23,556	\$604
\$200-\$599	5	241	\$100,497	\$417
\$0.20-\$199	2	77	\$8,214	\$107
Free	174	13,796		
Total	194	14,480	\$733,293	\$51

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	22	45%	10,184	97%
Univ/college	67	100%	1,720	100%
Miscellaneous	52	96%	1,532	94%
Society/govt	27	96%	658	97%
Open Access	26	81%	386	38%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	30	15.5%	
Grew 25-49.9%	26	13.4%	28.9%
Grew 10-24.99%	12	6.2%	35.1%
Even, ±9.99%	35	18.0%	53.1%
Shrank 10-24.99%	27	13.9%	67.0%
Shrank 25-49.99%	29	14.9%	82.0%
Shrank 50%+	35	18.0%	

**Subjects**

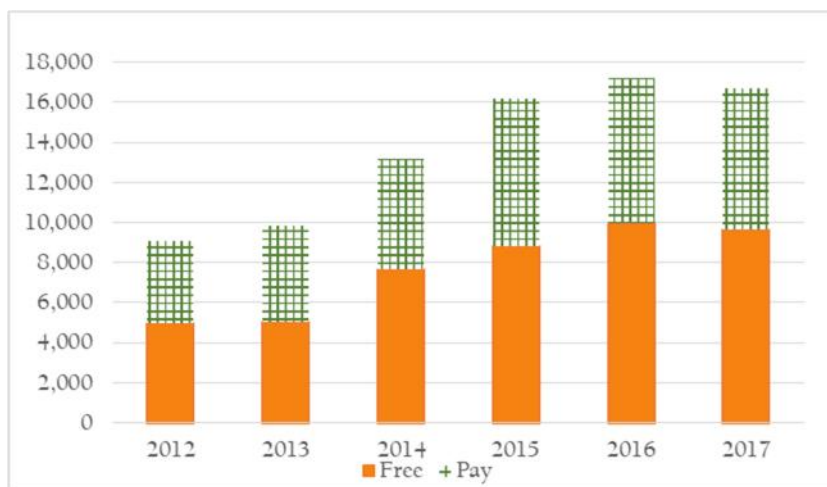
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Ecology	7	71%	1,237	96%
Anthropology	25	100%	673	100%
History	16	100%	350	100%
Earth Sciences	8	88%	329	89%
Computer Science	6	50%	261	33%
Biology	3	100%	223	100%
Agriculture	4	75%	171	77%
Education	6	100%	170	100%
Engineering	4	0%	140	0%
Arts & Architecture	6	100%	131	100%
Chemistry	2	100%	95	100%
Economics	3	100%	53	100%

# Germany

Germany's 271 OA journals published 16,699 articles in 2017, averaging 59 articles per no-fee journal, 73 per APC-charging. Average cost per article: \$1,233 across APC-charging journals, \$519 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	260	265	263	239	188	166
%Free	63%	62%	62%	61%	67%	67%
Articles	16,699	17,240	16,180	13,158	9,856	9,048
%Free	58%	58%	55%	58%	51%	55%





**Article Volume**

	Journals	%Free	Articles	%Free
Largest: 600+	5	60%	5,814	68%
Large: 150-599	22	32%	4,255	37%
Med.: 60-149	37	54%	2,298	54%
Small: 20-59	142	71%	3,826	68%
Smallest: 1-19	65	60%	506	64%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$1,400+	28	1,556	\$4,456,421	\$2,864
\$600-\$1,399	52	3,626	\$3,987,540	\$1,100
\$200-\$599	11	529	\$156,254	\$295
\$0.20-\$199	10	1,325	\$74,614	\$56
Free	170	9,663		
Total	271	16,699	\$8,674,829	\$519

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Traditional	111	49%	6,885	68%
Open Access	59	54%	5,268	40%
Univ/college	52	88%	2,829	51%
Miscellaneous	40	80%	1,493	83%
Society/govt	9	67%	224	75%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	57	21.0%	
Grew 25-49.9%	27	10.0%	31.0%
Grew 10-24.99%	18	6.6%	37.6%
Even, ±9.99%	61	22.5%	60.1%
Shrank 10-24.99%	39	14.4%	74.5%
Shrank 25-49.99%	26	9.6%	84.1%
Shrank 50%+	43	15.9%	

## Subjects

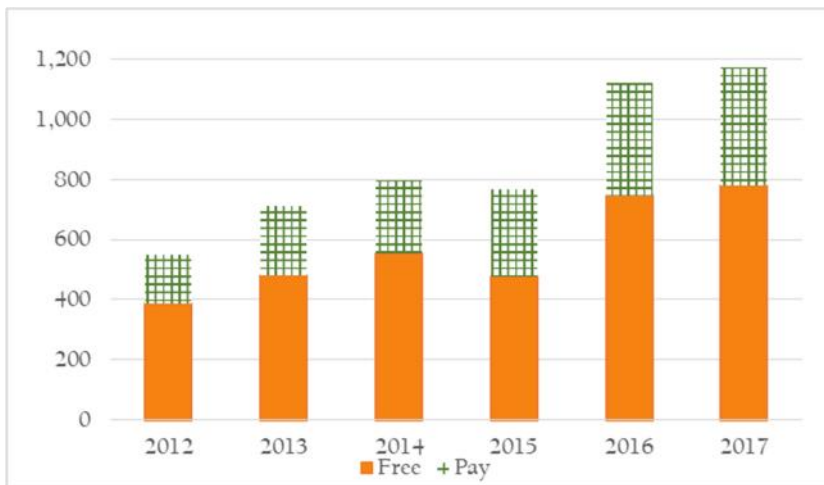
Subject	Journals	%Free	Articles	%Free
Physics	14	71%	3,285	98%
Earth Sciences	35	37%	2,648	53%
Ecology	18	50%	2,537	21%
Medicine	32	44%	1,446	44%
Computer Science	15	47%	1,408	13%
Technology	11	64%	868	87%
Education	15	67%	589	37%
Chemistry	6	67%	521	71%
Engineering	12	58%	387	63%
Other Sciences	8	50%	365	14%
Biology	6	50%	313	66%
Zoology	7	29%	287	14%
Language & Literature	10	90%	261	95%
Anthropology	8	100%	241	100%
Agriculture	7	86%	214	79%
Political Science	10	100%	202	100%
Sociology	8	88%	189	100%
Mathematics	8	88%	184	85%
Psychology	7	71%	181	78%
Library Science	4	100%	104	100%
Religion	5	60%	93	43%
Economics	7	71%	91	84%
History	4	100%	79	100%
Miscellany	3	100%	58	100%
Media & Communications	3	100%	55	100%
Philosophy	3	67%	42	57%
Law	3	67%	31	58%
Arts & Architecture	2	100%	20	100%

# Greece

Thirty OA journals; 1,171 articles in 2017; average 43 articles per no-fee journal and 44 for APC-charging. Average cost per article: \$299 across APC-charging journals, \$100 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	27	29	27	25	23	24
%Free	67%	69%	70%	72%	74%	75%
Articles	1,171	1,123	766	799	713	548
%Free	67%	66%	62%	69%	67%	71%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	3	33%	492	39%
Med.: 60-149	4	100%	339	100%
Small: 20-59	15	60%	252	70%
Smallest: 1-19	8	88%	88	82%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$600-\$1.399	1	7	\$6,083	\$869
\$200-\$599	1	175	\$86,800	\$496
\$0.20-\$199	7	210	\$24,266	\$116
Free	21	779		
Total	30	1,171	\$117,149	\$100

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Miscellaneous	12	58%	550	62%
Univ/college	14	71%	342	47%
Society/govt	3	100%	187	100%
Traditional	1	100%	92	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	5	16.7%	
Grew 25-49.9%	3	10.0%	26.7%
Grew 10-24.99%	4	13.3%	40.0%
Even, $\pm$ 9.99%	5	16.7%	56.7%
Shrank 10-24.99%	3	10.0%	66.7%
Shrank 25-49.99%	3	10.0%	76.7%
Shrank 50%+	7	23.3%	

Starting Date



Subjects

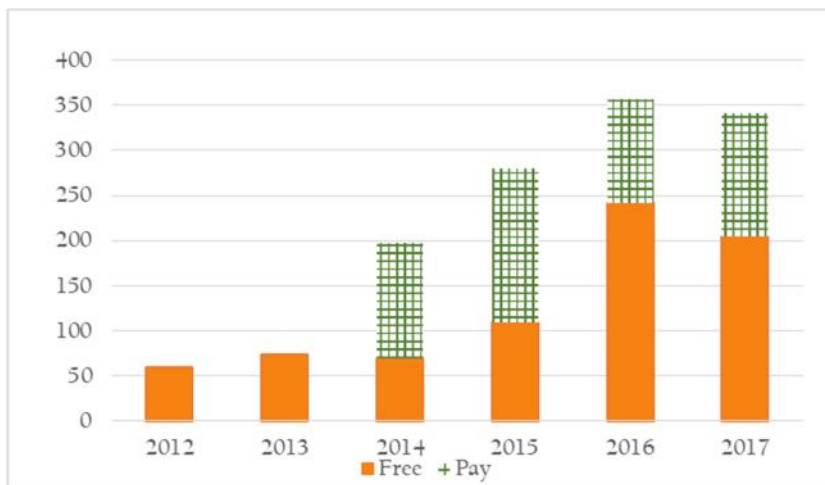
Subject	Journals	%Free	Articles	%Free
Medicine	7	86%	383	96%
Engineering	2	0%	300	0%
Sociology	2	100%	147	100%
Anthropology	2	100%	77	100%
Earth Sciences	2	100%	66	100%
Economics	6	33%	66	14%
Language & Literature	2	100%	39	100%
Arts & Architecture	1	100%	37	100%
History	3	100%	27	100%
Education	2	50%	22	45%
Biology	1	0%	7	0%

# Ireland

Fourteen OA journals; 341 articles in 2017; average 17 articles per no-fee journal, 68 per fee-charging. Average article cost: \$1,660 across APC (fee) charging journals, \$665 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	13	13	11	8	8	6
%Free	85%	85%	91%	88%	100%	100%
Articles	341	357	280	197	73	59
%Free	60%	68%	39%	35%	100%	100%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	0%	84	0%
Med.: 60-149	1	100%	45	100%
Small: 20-59	5	80%	154	66%
Smallest: 1-19	7	100%	58	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	2	136	\$226,804	\$1,668
Free	12	205		
Total	14	341	\$226,804	\$665

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	2	0%	136	0%
Miscellaneous	5	100%	118	100%
Univ/college	7	100%	87	100%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	4	28.6%	
Grew 25-49.9%	1	7.1%	35.7%
Grew 10-24.99%	2	14.3%	50.0%
Shrank 10-24.99%	2	14.3%	64.3%
Shrank 25-49.99%	3	21.4%	85.7%
Shrank 50%+	2	14.3%	



**Subjects**

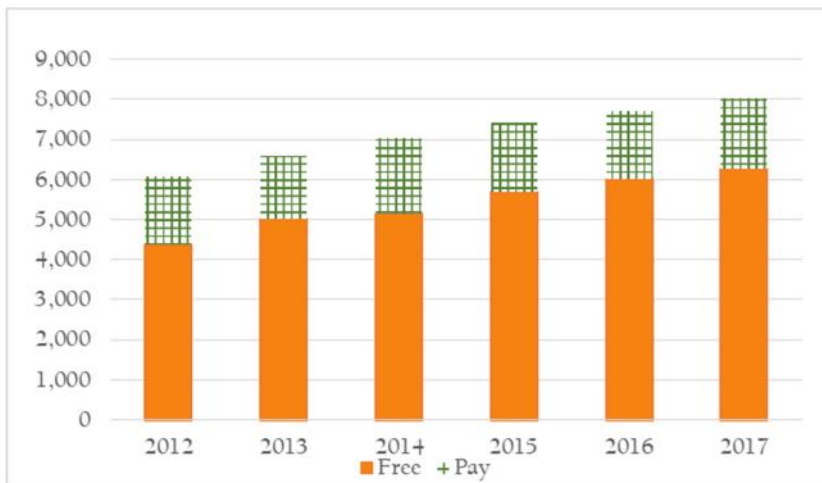
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	5	60%	217	37%
Media & Communications	2	100%	44	100%
Arts & Architecture	1	100%	29	100%
Religion	1	100%	19	100%
Education	1	100%	10	100%
Anthropology	1	100%	9	100%
Language & Literature	2	100%	7	100%
Ecology	1	100%	6	100%

# Italy

Italy's 283 OA journals published 8,020 articles in 2017, averaging 29 articles per no-fee journal, 37 per APC-charging. Average cost per article: \$865 across APC-charging journals, \$188 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	265	277	268	252	229	209
%Free	82%	82%	82%	81%	80%	80%
Articles	8,020	7,693	7,426	7,031	6,584	6,073
%Free	78%	78%	77%	73%	76%	72%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	6	83%	1,030	63%
Med.: 60-149	41	68%	2,494	72%
Small: 20-59	166	84%	3,887	85%
Smallest: 1-19	70	87%	609	86%

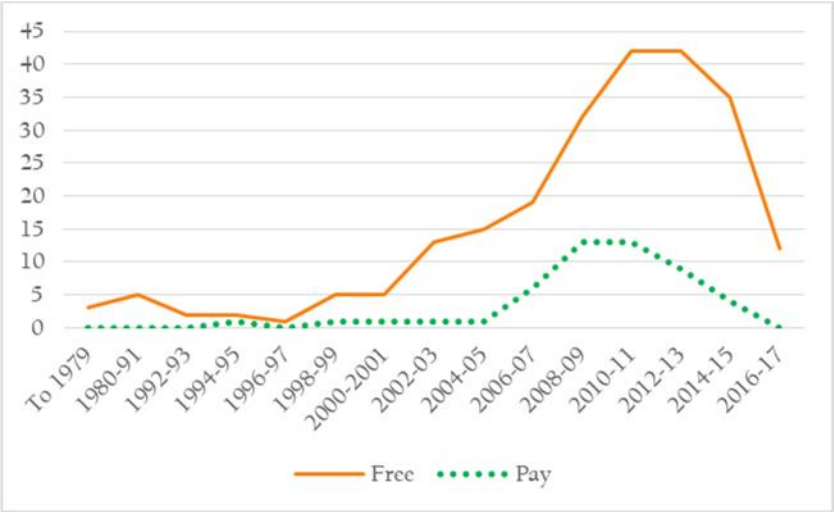
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	4	452	\$920,422	\$2,036
\$600-\$1,399	21	415	\$320,272	\$772
\$200-\$599	20	643	\$237,934	\$370
\$0.20-\$199	5	230	\$26,826	\$117
Free	233	6,280		
Total	283	8,020	\$1,505,454	\$188

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	141	96%	3,670	94%
Miscellaneous	67	85%	2,217	71%
Open Access	51	37%	1,251	39%
Society/govt	21	95%	812	90%
Traditional	3	67%	70	63%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	57	20.1%	
Grew 25-49.9%	37	13.1%	33.2%
Grew 10-24.99%	26	9.2%	42.4%
Even, ±9.99%	53	18.7%	61.1%
Shrank 10-24.99%	38	13.4%	74.6%
Shrank 25-49.99%	36	12.7%	87.3%
Shrank 50%+	36	12.7%	

## Subjects

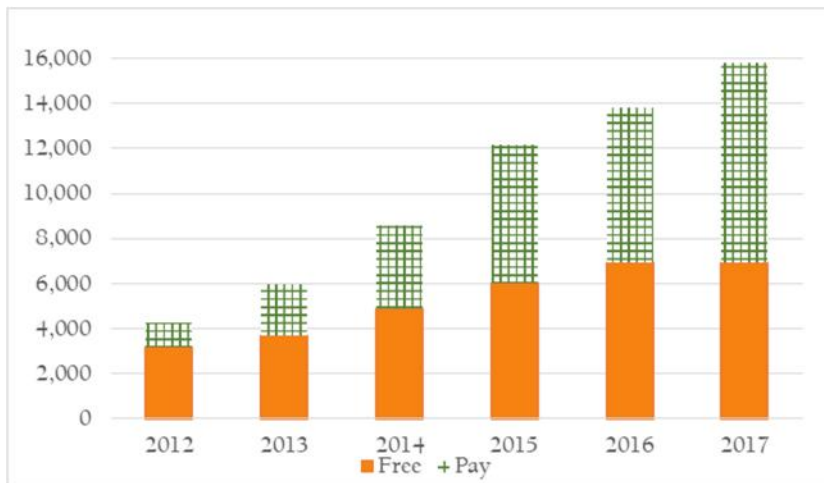
Subject	Journals	%Free	Articles	%Free
Medicine	52	38%	1,786	36%
Language & Literature	30	97%	916	98%
Arts & Architecture	27	93%	787	86%
Anthropology	25	100%	588	100%
Law	12	100%	468	100%
Philosophy	19	100%	468	100%
Education	10	100%	332	100%
History	16	100%	283	100%
Earth Sciences	7	71%	262	82%
Agriculture	10	60%	259	31%
Zoology	9	78%	220	85%
Sociology	7	100%	175	100%
Economics	11	100%	169	100%
Engineering	1	100%	151	100%
Media & Communications	5	100%	144	100%
Ecology	4	50%	139	29%
Religion	2	100%	139	100%
Political Science	5	100%	134	100%
Psychology	8	88%	120	98%
Mathematics	6	83%	109	83%
Library Science	3	100%	106	100%
Biology	4	75%	72	67%
Miscellany	4	100%	69	100%
Chemistry	1	0%	44	0%
Other Sciences	2	50%	38	42%
Computer Science	2	100%	32	100%
Technology	1	100%	10	100%

# Netherlands

Netherland's 217 OA journals published 15,789 articles in 2017; average 58 articles per no-fee journal, 99 per APC-charging. Average cost per article \$1,869 across APC-charging journals, \$1,052 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	209	209	187	155	104	84
%Free	57%	56%	56%	59%	63%	69%
Articles	15,789	13,806	12,189	8,552	5,950	4,228
%Free	44%	50%	49%	57%	62%	75%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	4	50%	3,323	47%
Large: 150-599	25	32%	5,691	22%
Med.: 60-149	50	60%	3,693	60%
Small: 20-59	99	60%	2,704	62%
Smallest: 1-19	39	56%	378	61%

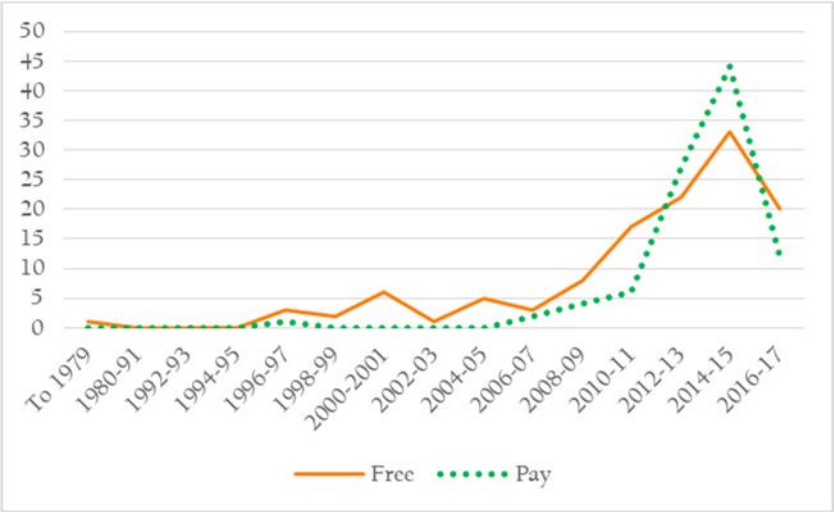
**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	58	5,041	\$13,828,178	\$2,743
\$600-\$1,399	23	2,917	\$2,318,404	\$795
\$200-\$599	14	925	\$468,150	\$506
\$0.20-\$199	1	6	\$600	\$100
Free	121	6,900		
Total	217	15,789	\$16,615,332	\$1,052

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	176	48%	14,859	41%
Univ/college	29	90%	715	90%
Miscellaneous	5	60%	134	75%
Open Access	6	100%	68	100%
Society/govt	1	100%	13	100%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	44	20.3%	
Grew 25-49.9%	21	9.7%	30.0%
Grew 10-24.99%	30	13.8%	43.8%
Even, ±9.99%	51	23.5%	67.3%
Shrank 10-24.99%	22	10.1%	77.4%
Shrank 25-49.99%	28	12.9%	90.3%
Shrank 50%+	21	9.7%	



**Subjects**

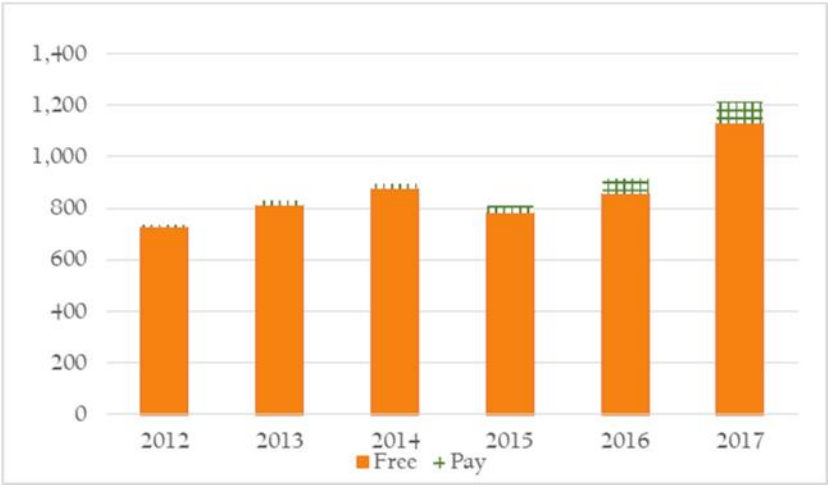
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	81	41%	6,954	32%
Biology	15	20%	2,144	4%
Physics	6	50%	1,926	68%
Chemistry	3	33%	656	95%
Engineering	9	56%	486	69%
Ecology	10	60%	458	57%
Computer Science	7	71%	450	24%
Earth Sciences	6	83%	388	41%
Technology	7	57%	295	56%
Other Sciences	5	80%	274	79%
History	6	100%	264	100%
Sociology	5	100%	210	100%
Arts & Architecture	7	57%	204	48%
Religion	2	100%	181	100%
Agriculture	7	43%	162	66%
Political Science	4	50%	128	64%
Economics	7	86%	126	95%
Media & Communications	4	75%	106	67%
Anthropology	6	100%	93	100%
Language & Literature	8	63%	82	65%
Zoology	2	0%	63	0%
Miscellany	2	100%	55	100%
Library Science	2	100%	41	100%
Law	2	100%	21	100%
Education	2	100%	12	100%
Psychology	1	100%	10	100%
Philosophy	1	100%	0	

# Norway

Seventy OA journals; 1,216 articles in 2017; average 19 articles per no-fee journal, 15 per APC-charging. Average cost per article: \$1,379 across APC-charging journals, \$100 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	66	52	52	48	41	36
%Free	91%	90%	90%	96%	95%	94%
Articles	1,216	913	812	896	832	738
%Free	93%	94%	96%	98%	97%	98%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	1	100%	17	100%
Med.: 60-149	3	100%	45	100%
Small: 20-59	35	94%	833	95%
Smallest: 1-19	31	87%	321	84%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$1,400+	4	70	\$106,981	\$1,528
\$600-\$1,399	2	18	\$14,331	\$796
Free	64	1,128		
Total	70	1,216	\$121,312	\$100

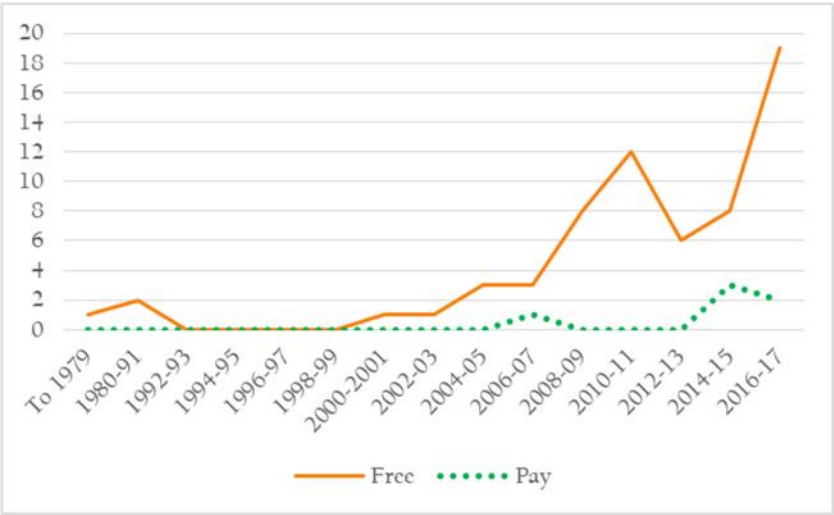
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	53	100%	922	100%
Miscellaneous	9	78%	147	88%
Open Access	7	43%	132	47%
Society/govt	1	100%	15	100%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	29	41.4%	
Grew 25-49.9%	7	10.0%	51.4%
Grew 10-24.99%	4	5.7%	57.1%
Even, $\pm$ 9.99%	5	7.1%	64.3%
Shrank 10-24.99%	5	7.1%	71.4%
Shrank 25-49.99%	7	10.0%	81.4%
Shrank 50%+	13	18.6%	

Starting Date



Subjects

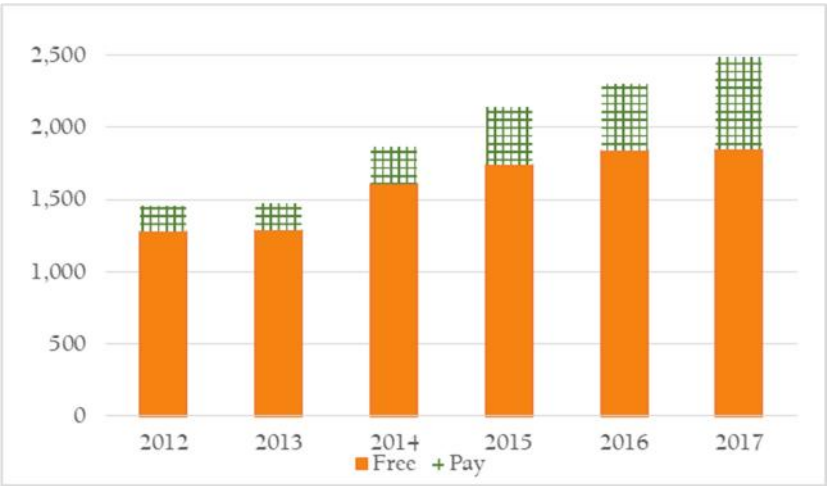
Subject	Journals	%Free	Articles	%Free
Education	12	83%	253	90%
Sociology	8	100%	168	100%
Language & Literature	10	100%	135	100%
Arts & Architecture	5	60%	86	64%
Law	6	83%	84	80%
Anthropology	4	100%	77	100%
Medicine	4	100%	75	100%
Religion	3	100%	66	100%
Political Science	2	100%	51	100%
History	2	100%	50	100%
Media & Communications	2	100%	45	100%
Philosophy	2	50%	39	62%
Zoology	4	100%	24	100%
Computer Science	1	100%	15	100%
Miscellany	2	100%	14	100%
Other Sciences	1	100%	14	100%
Library Science	1	100%	12	100%
Psychology	1	100%	8	100%

# Portugal

Portugal’s 85 OA journals published 2,485 articles in 2017, averaging 26 articles per no-fee journal, 64 per APC-charging. Average cost per article: \$631 across APC-charging journals, \$162 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	82	85	83	76	69	62
%Free	88%	88%	89%	91%	91%	94%
Articles	2,485	2,298	2,143	1,862	1,478	1,457
%Free	74%	80%	81%	86%	87%	88%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Large: 150-599	1	100%	187	100%
Med.: 60-149	13	54%	796	42%
Small: 20-59	50	92%	1,289	87%
Smallest: 1-19	21	100%	213	100%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$600-\$1.399	4	323	\$356,915	\$1,105
\$200-\$599	1	63	\$12,915	\$205
\$0.20-\$199	5	253	\$33,336	\$132
Free	75	1,846		
Total	85	2,485	\$403,166	\$162

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Univ/college	51	96%	1,369	92%
Society/govt	15	80%	488	63%
Open Access	4	0%	323	0%
Miscellaneous	15	93%	305	90%

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Grew 50%+	14	16.5%	
Grew 25-49.9%	14	16.5%	32.9%
Grew 10-24.99%	10	11.8%	44.7%
Even, $\pm$ 9.99%	17	20.0%	64.7%
Shrank 10-24.99%	11	12.9%	77.6%
Shrank 25-49.99%	10	11.8%	89.4%
Shrank 50%+	9	10.6%	

Starting Date



Subjects

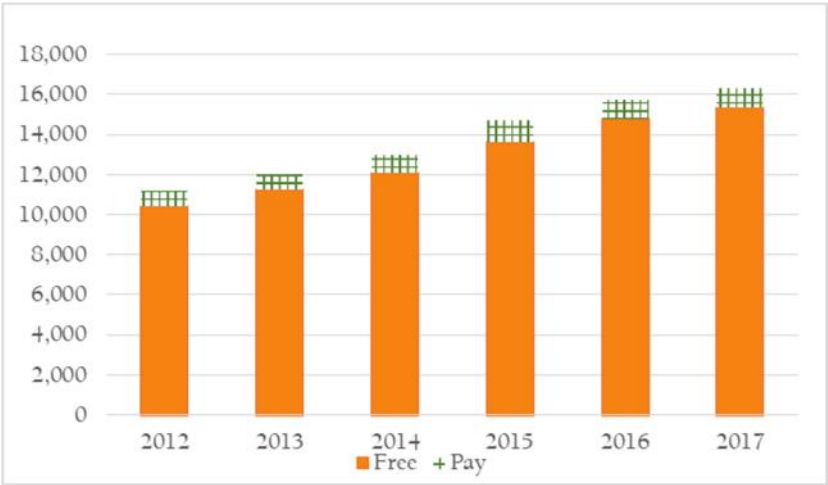
Subject	Journals	%Free	Articles	%Free
Medicine	11	91%	467	87%
Media & Communications	9	89%	385	83%
Sociology	10	80%	348	49%
Anthropology	5	80%	163	75%
Language & Literature	9	100%	155	100%
Education	6	100%	142	100%
Arts & Architecture	6	83%	120	75%
Political Science	3	67%	112	28%
History	6	100%	104	100%
Library Science	3	100%	75	100%
Earth Sciences	4	100%	72	100%
Agriculture	1	0%	71	0%
Psychology	2	50%	71	7%
Computer Science	3	100%	59	100%
Law	1	0%	45	0%
Miscellany	2	100%	45	100%
Economics	2	100%	27	100%
Ecology	1	100%	14	100%
Religion	1	100%	10	100%

# Spain

Spain’s 576 OA journals published 16,332 articles in 2017, an average of 29 articles per no-fee journal and 45 per APC-charging (fee). Average cost per article: \$353 across APC-charging journals, \$21 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	551	562	550	534	496	471
%Free	96%	96%	96%	96%	96%	96%
Articles	16,332	15,736	14,692	13,001	12,038	11,172
%Free	94%	94%	93%	93%	93%	93%





**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	9	89%	985	93%
Med.: 60-149	64	89%	4,191	87%
Small: 20-59	343	96%	9,456	96%
Smallest: 1-19	160	99%	1,700	99%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$1,400+	1	16	\$25,824	\$1,614
\$600-\$1,399	2	131	\$120,275	\$918
\$200-\$599	10	573	\$175,764	\$307
\$0.20-\$199	10	273	\$28,799	\$105
Free	553	15,339		
Total	576	16,332	\$350,662	\$21

**Publisher Category**

Category	Journals	%Free	Articles	%Free
Univ/college	381	99%	10,007	97%
Miscellaneous	82	85%	2,438	81%
Traditional	30	93%	1,618	96%
Society/govt	55	98%	1,575	98%
Open Access	28	89%	694	85%

Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	83	14.4%	
Grew 25-49.9%	49	8.5%	22.9%
Grew 10-24.99%	88	15.3%	38.2%
Even, ±9.99%	186	32.3%	70.5%
Shrank 10-24.99%	80	13.9%	84.4%
Shrank 25-49.99%	41	7.1%	91.5%
Shrank 50%+	49	8.5%	

## Subjects

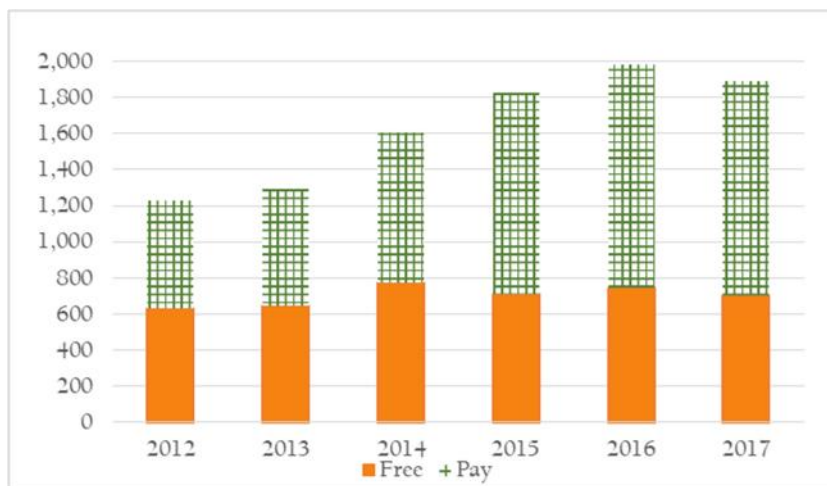
Subject	Journals	%Free	Articles	%Free
Medicine	44	93%	2,525	99%
Language & Literature	75	99%	1,777	98%
Education	60	98%	1,716	99%
Anthropology	56	96%	1,402	90%
History	43	100%	1,032	100%
Sociology	37	92%	969	90%
Media & Communications	29	93%	898	91%
Arts & Architecture	41	98%	849	95%
Psychology	20	85%	697	64%
Philosophy	20	100%	633	100%
Political Science	21	100%	576	100%
Earth Sciences	23	96%	573	88%
Law	20	100%	539	100%
Economics	22	95%	347	89%
Agriculture	7	100%	298	100%
Zoology	7	86%	249	74%
Ecology	7	100%	196	100%
Miscellany	6	100%	169	100%
Library Science	9	100%	166	100%
Other Sciences	5	100%	158	100%
Computer Science	6	100%	136	100%
Mathematics	5	100%	106	100%
Engineering	4	75%	104	58%
Technology	4	25%	101	1%
Religion	2	100%	83	100%
Biology	3	100%	33	100%

# Sweden

Forty-eight OA journals, 1,890 articles in 2017; average 27 articles per non-fee journal, 63 per APC-charging. Average cost per article \$1,680 across APC-charging journals, \$1,057 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	45	48	46	44	40	38
%Free	58%	60%	59%	57%	58%	58%
Articles	1,890	1,984	1,830	1,604	1,291	1,226
%Free	37%	38%	39%	48%	50%	51%



**Article Volume**

	Journals	%Free	Articles	%Free
Large: 150-599	4	25%	878	28%
Med.: 60-149	8	38%	524	27%
Small: 20-59	15	73%	330	68%
Smallest: 1-19	21	67%	158	56%

**APC Levels and Revenue**

	Journals	Articles	Revenue	\$/article
\$1,400+	14	1,042	\$1,911,666	\$1,835
\$600-\$1,399	3	47	\$35,970	\$765
\$200-\$599	2	100	\$49,520	\$495
Free	29	701		
Total	48	1,890	\$1,997,156	\$1,057

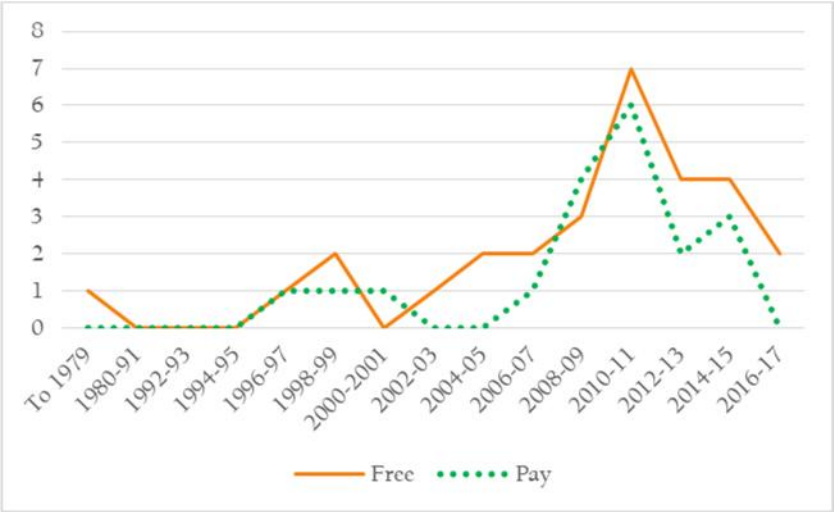
**Publisher Category**

Category	Journals	%Free	Articles	%Free
Open Access	18	17%	786	10%
Society/govt	2	0%	447	0%
Miscellaneous	9	89%	412	93%
Univ/college	19	95%	245	99%

**Growth and Shrinkage**

Change 2016-17	Count	Percent	Cum%
Grew 50%+	7	14.6%	
Grew 25-49.9%	3	6.3%	20.8%
Grew 10-24.99%	3	6.3%	27.1%
Even, $\pm$ 9.99%	7	14.6%	41.7%
Shrank 10-24.99%	7	14.6%	56.3%
Shrank 25-49.99%	9	18.8%	75.0%
Shrank 50%+	12	25.0%	

Starting Date



Subjects

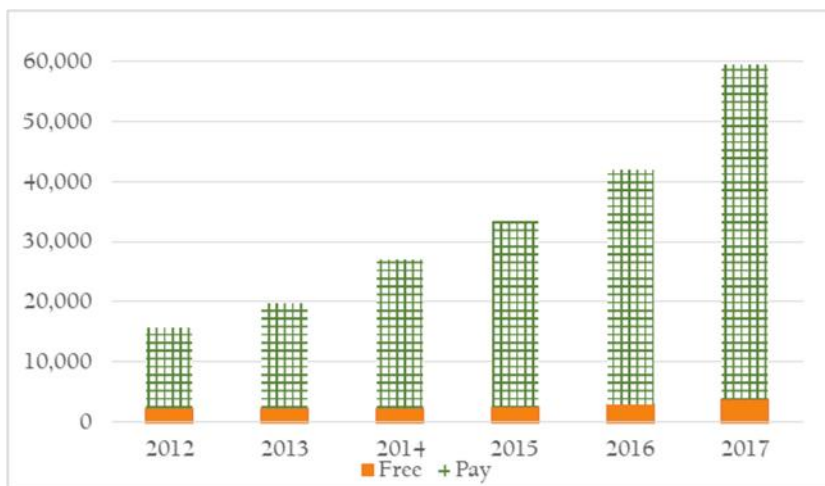
Subject	Journals	%Free	Articles	%Free
Medicine	11	27%	1,154	22%
Education	9	78%	175	59%
Agriculture	2	50%	103	3%
Religion	2	100%	91	100%
Economics	4	75%	68	49%
Language & Literature	3	100%	65	100%
Anthropology	2	100%	53	100%
Miscellany	2	50%	44	64%
Sociology	4	50%	41	27%
Zoology	1	0%	30	0%
Political Science	3	67%	25	72%
Arts & Architecture	1	100%	20	100%
History	1	100%	14	100%
Other Sciences	1	100%	3	100%
Earth Sciences	1	0%	2	0%
Psychology	1	0%	2	0%

# Switzerland

Switzerland's 272 OA journals published 59,455 articles in 2017, an average of 52 per no-fee journal and 288 per APC-charging journal. Average cost per article: \$1,937 across APC-charging, \$1,813 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	266	260	240	223	192	143
%Free	27%	26%	22%	17%	18%	17%
Articles	59,455	41,936	33,455	26,983	19,823	15,694
%Free	6%	7%	7%	9%	11%	15%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	24	4%	35,633	1%
Large: 150-599	47	11%	13,668	7%
Med.: 60-149	84	15%	6,797	13%
Small: 20-59	97	46%	3,193	47%
Smallest: 1-19	20	55%	164	56%

**APC Levels and Revenue**

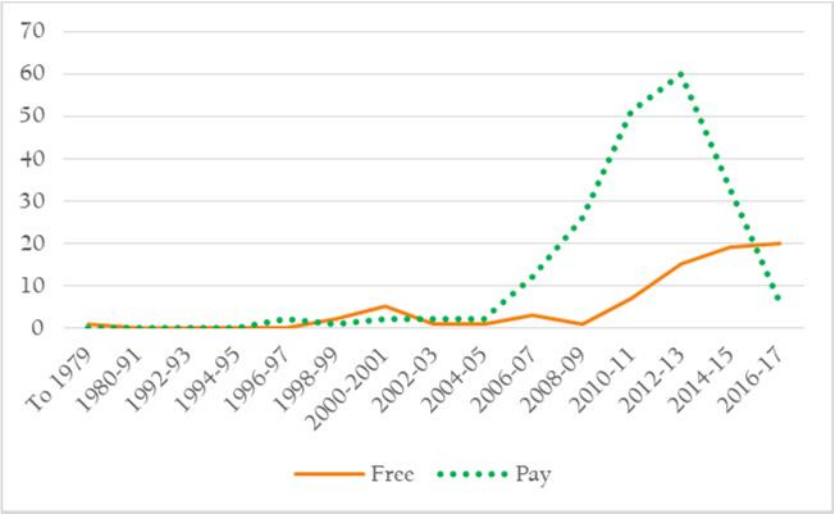
	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	70	44,140	\$98,033,119	\$2,221
\$600-\$1,399	50	6,951	\$7,579,372	\$1,090
\$200-\$599	74	4,530	\$2,165,900	\$478
\$0.20-\$199	3	22	\$3,542	\$161
Free	75	3,812		
Total	272	59,455	\$107,781,933	\$1,813

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Open Access	229	24%	56,748	6%
Traditional	24	21%	2,252	7%
Miscellaneous	7	86%	204	94%
Univ/college	10	90%	180	97%
Society/govt	2	50%	71	0%



Starting Date



Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	120	44.1%	
Grew 25-49.9%	41	15.1%	59.2%
Grew 10-24.99%	29	10.7%	69.9%
Even, ±9.99%	38	14.0%	83.8%
Shrank 10-24.99%	21	7.7%	91.5%
Shrank 25-49.99%	13	4.8%	96.3%
Shrank 50%+	10	3.7%	

**Subjects**

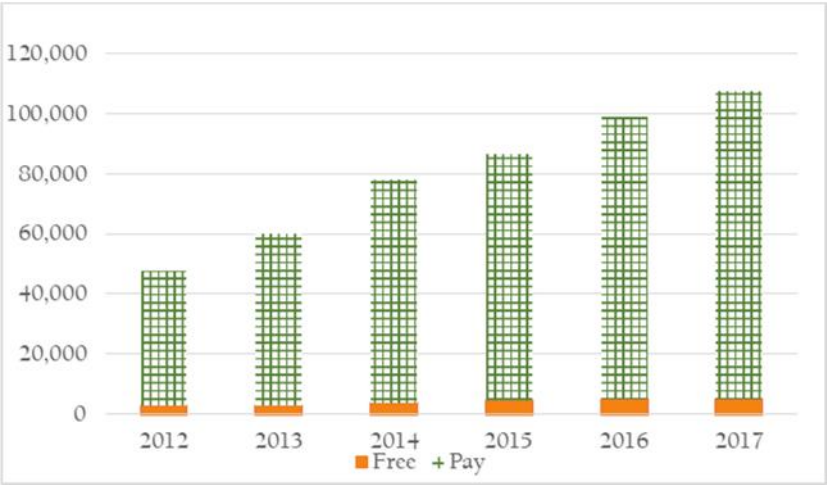
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	84	23%	14,432	10%
Biology	25	12%	6,890	1%
Chemistry	20	20%	6,593	3%
Ecology	11	9%	5,528	0%
Agriculture	12	25%	4,736	4%
Physics	16	25%	4,725	4%
Technology	10	20%	3,461	2%
Earth Sciences	13	0%	3,153	0%
Psychology	1	0%	2,319	0%
Engineering	7	0%	2,168	0%
Other Sciences	7	43%	1,629	6%
Mathematics	9	33%	816	11%
Zoology	5	20%	556	4%
Computer Science	9	0%	514	0%
Miscellany	5	80%	354	94%
Religion	3	100%	299	100%
Economics	7	71%	277	78%
Education	3	33%	202	24%
Sociology	7	57%	196	80%
Anthropology	3	67%	159	39%
Arts & Architecture	2	50%	140	14%
Language & Literature	4	100%	105	100%
Law	4	100%	69	100%
Political Science	1	100%	51	100%
Library Science	2	100%	33	100%
Philosophy	1	100%	26	100%
Media & Communications	1	0%	24	0%

# United Kingdom

The UK's 975 OA journals published 107,519 articles in 2017, averaging 31 articles per no-fee journal, 132 per APC-charging. Average cost per article: \$2,110 across APC-charging journals, \$2,009 overall.

## Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	944	951	897	800	705	615
%Free	18%	17%	17%	17%	16%	14%
Articles	107,519	98,847	86,573	78,103	59,958	47,502
%Free	5%	5%	5%	5%	5%	6%



**Article Volume**

	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Largest: 600+	29	3%	52,697	2%
Large: 150-599	129	2%	27,041	0%
Med.: 60-149	210	8%	15,638	7%
Small: 20-59	397	25%	10,462	25%
Smallest: 1-19	210	27%	1,681	31%

**APC Levels and Revenue**

	<b>Journals</b>	<b>Articles</b>	<b>Revenue</b>	<b>\$/article</b>
\$1,400+	577	89,124	\$203,309,435	\$2,281
\$600-\$1,399	173	10,759	\$11,771,446	\$1,094
\$200-\$599	43	2,067	\$869,537	\$421
\$0.20-\$199	7	413	\$50,200	\$122
Free	175	5,156		
Total	975	107,519	\$216,000,618	\$2,009

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Traditional	366	11%	54,974	2%
Open Access	447	9%	37,405	3%
Univ/college	97	54%	8,875	14%
Society/govt	24	63%	3,279	41%
Miscellaneous	41	59%	2,986	14%

### Starting Date



### Growth and Shrinkage

Change 2016-17	Count	Percent	Cum%
Grew 50%+	190	19.5%	
Grew 25-49.9%	100	10.3%	29.7%
Grew 10-24.99%	116	11.9%	41.6%
Even, ±9.99%	203	20.8%	62.5%
Shrank 10-24.99%	127	13.0%	75.5%
Shrank 25-49.99%	132	13.5%	89.0%
Shrank 50%+	107	11.0%	

**Subjects**

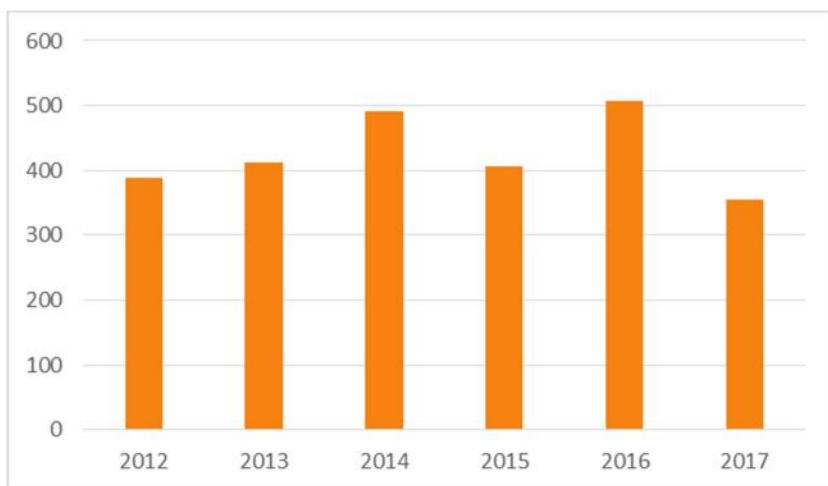
<b>Subject</b>	<b>Journals</b>	<b>%Free</b>	<b>Articles</b>	<b>%Free</b>
Medicine	492	9%	45,013	3%
Other Sciences	12	8%	33,312	0%
Biology	99	3%	9,914	1%
Chemistry	14	21%	2,177	45%
Physics	21	10%	2,176	2%
Ecology	27	15%	2,149	3%
Engineering	18	17%	2,013	6%
Zoology	25	28%	1,432	9%
Agriculture	22	9%	1,330	4%
Technology	15	13%	967	9%
Mathematics	22	27%	884	8%
Computer Science	25	12%	843	2%
Sociology	17	53%	830	42%
Earth Sciences	20	5%	699	5%
Anthropology	18	28%	515	22%
Education	20	70%	507	53%
Economics	17	47%	483	30%
Language & Literature	19	74%	415	52%
Miscellany	6	50%	322	20%
Psychology	12	25%	307	11%
Arts & Architecture	13	85%	304	63%
Library Science	10	80%	268	92%
Law	11	73%	186	60%
Media & Communications	4	100%	164	100%
History	5	80%	105	93%
Philosophy	3	33%	88	13%
Political Science	5	40%	68	60%
Religion	3	33%	48	19%

## Other Western European Countries

Ten journals, none with fees; 334 articles in 2017; average 35 articles per journal.

### Journals and Articles

	2017	2016	2015	2014	2013	2012
Journals	10	10	9	9	7	8
Articles	354	507	406	491	413	389



**Article Volume**

	<b>Journals</b>	<b>Articles</b>
Large: 150-599	1	200
Med.: 60-149	3	93
Small: 20-59	3	42
Smallest: 1-19	3	19

**Publisher Category**

<b>Category</b>	<b>Journals</b>	<b>Articles</b>
Society/govt	1	200
Univ/college	6	93
Miscellaneous	3	61

**Growth and Shrinkage**

<b>Change 2016-17</b>	<b>Count</b>	<b>Percent</b>	<b>Cum%</b>
Even, $\pm 9.99\%$	3	30.0%	
Shrank 10-24.99%	1	10.0%	40.0%
Shrank 25-49.99%	3	30.0%	70.0%
Shrank 50%+	3	30.0%	

**Subjects**

<b>Subject</b>	<b>Journals</b>	<b>Articles</b>
Medicine	2	205
Earth Sciences	2	54
Political Science	2	48
Psychology	1	20
Sociology	1	13
Anthropology	1	7
Education	1	7



## Country Summaries

### **Iceland**

Six no-fee journals with 313 articles in 2017.

### **Luxembourg**

Two no-fee journals with 16 articles in 2017.

### **Malta**

Two no-fee journals with 25 articles in 2017.

## Appendix A: The Heatmap

The world map on the front cover is a heatmap generated at [GunnMap 2](#) (thanks!). The number in the legend is combined 2016-2017 articles per 100,000 people. The table below shows the data used to generate the heatmap. Country names were normalized to those used in [the list of countries and dependencies by population at Wikipedia](#), the source of the population figures (sourced from official 2017 estimates as noted in the article). Some countries may not appear: I did not attempt to verify each country on the heatmap.

Country	Articles	Population	Heat:Art./100K
Albania	119	2,870,324	4.146
Algeria	2,107	41,697,498	5.053
Argentina	6,891	44,044,811	15.645
Australia	5,315	24,950,600	21.302
Austria	2,026	8,830,487	22.943
Bahamas	19	382,460	4.968
Bangladesh	1,361	164,586,000	0.827
Barbados	62	285,719	21.700
Belarus	642	9,484,300	6.769
Belgium	1,286	11,406,122	11.275
Bolivia	104	11,145,770	0.933
Bosnia and Herzegovina	633	3,511,372	18.027
Brazil	100,529	209,116,000	48.073
Bulgaria	3,913	7,050,034	55.503
Cameroon	212	23,794,164	0.891
Canada	8,239	37,120,000	22.196

Country	Articles	Population	Heat:Art./100K
Chile	4,120	17,574,003	23.444
China	14,151	1,391,210,000	1.017
Colombia	13,881	49,786,400	27.881
Costa Rica	2,525	4,947,490	51.036
Croatia	5,411	4,154,213	130.253
Cuba	3,863	11,239,224	34.371
Cyprus	184	854,800	21.526
Czech Republic	5,073	10,610,055	47.813
Democratic Republic of the Congo	247	81,339,900	0.304
Denmark	539	5,785,864	9.316
Ecuador	2,612	17,001,800	15.363
Egypt	39,473	97,042,200	40.676
El Salvador	61	6,581,940	0.927
Estonia	473	1,352,320	34.977
Ethiopia	314	94,352,000	0.333
Finland	1,074	5,513,708	19.479
France	26,330	67,225,000	39.167
Georgia	259	3,729,600	6.944
Germany	33,939	82,740,900	41.018
Ghana	165	29,614,337	0.557
Greece	2,294	10,768,193	21.303
Guam	10	184,200	5.429
Guatemala	27	16,176,133	0.167
Hong Kong	1,709	7,409,800	23.064
Hungary	1,459	9,771,000	14.932
Iceland	770	350,710	219.555
India	35,084	1,332,390,000	2.633
Indonesia	41,001	261,890,900	15.656
Iran	25,713	81,495,000	31.552
Iraq	2,600	38,274,618	6.793
Ireland	698	4,792,500	14.564

Country	Articles	Population	Heat:Art./100K
Israel	153	8,862,300	1.726
Italy	15,713	60,497,174	25.973
Jamaica	12	2,728,864	0.440
Japan	1,699	126,490,000	1.343
Jordan	166	10,162,100	1.634
Kazakhstan	28	18,212,800	0.154
Kenya	505	49,699,862	1.016
Kyrgyzstan	67	6,140,200	1.091
Latvia	772	1,923,500	40.135
Lebanon	42	6,082,000	0.691
Libya	223	6,374,616	3.498
Lithuania	1,700	2,802,047	60.670
Luxembourg	37	602,005	6.146
Macedonia	644	2,073,702	31.056
Malaysia	2,152	32,535,700	6.614
Malta	54	434,403	12.431
Mauritius	23	1,264,887	1.818
Mexico	5,821	124,286,623	4.684
Moldova	1,886	3,550,900	53.113
Mongolia	110	3,213,850	3.423
Montenegro	584	622,387	93.832
Morocco	366	34,682,000	1.055
Nepal	843	28,825,709	2.924
Netherlands	29,595	17,225,100	171.813
New Zealand	341	4,881,940	6.985
Nicaragua	85	6,305,956	1.348
Nigeria	923	193,392,500	0.477
Norway	2,129	5,302,778	40.149
Oman	410	4,639,678	8.837
Pakistan	3,325	211,741,000	1.570
Paraguay	233	7,052,983	3.304
Peru	2,117	31,826,018	6.652

Country	Articles	Population	Heat:Art./100K
Philippines	466	105,945,000	0.440
Poland	33,165	38,422,346	86.317
Portugal	4,783	10,309,573	46.394
Puerto Rico	36	3,337,177	1.079
Qatar	383	2,685,053	14.264
Romania	17,968	19,638,000	91.496
Russia	23,912	146,877,088	16.280
Saudi Arabia	2,726	33,413,660	8.158
Serbia	8,331	7,040,272	118.333
Singapore	617	5,612,300	10.994
Slovakia	2,151	5,443,120	39.518
Slovenia	2,641	2,066,880	127.777
South Africa	5,619	56,717,000	9.907
South Korea	6,203	51,446,201	12.057
Spain	32,068	46,549,045	68.891
Sri Lanka	380	21,444,000	1.772
Sweden	3,874	10,142,686	38.195
Switzerland	101,391	8,482,200	1195.338
Taiwan	3,048	23,571,497	12.931
Thailand	1,581	69,037,513	2.290
Tunisia	2,188	11,446,300	19.115
Turkey	20,984	80,810,525	25.967
Turkmenistan	10	5,758,000	0.174
Uganda	1,714	37,673,800	4.550
Ukraine	13,509	42,322,028	31.920
United Arab Emirates	565	9,400,000	6.011
United Kingdom	206,366	65,648,054	314.352
United States	126,365	327,221,000	38.618
Uruguay	580	3,493,205	16.604
Venezuela	713	31,431,164	2.268
Yemen	30	28,250,000	0.106

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