Chapter 4

Starting Dates and the Gold Rush

While OA journals born as OA journals date back to around 1987, journals that are now OA go back much further, with *DOAJ* listings dating back to 1853. Still, most OA journals began fairly recently, and there's been an enormous increase in OA publishing in recent years. There's some reason to believe that part of that increase, at least in some fields, may be due to a growth in available funding for APCs—that there may be a sort of gold rush going on. (There's a secondary gold rush of pseudo-journals from "publishers" hoping to get in on the action, discussed in chapter 6.)

Overall Patterns

Journals founded in the twentieth century that are now gold OA journals mostly do *not* charge APCs; except for the 27 journals founded during the 1960s, free journals consistently represent at least three-quarters of early OA journals.

But that's also true for journals in the first six years of the new century, with fewer than 20 percent of new OA journals charging fees. While there's no good way to know for sure, my guess is that most journals founded prior to, say, 1996 began as print journals and converted to OA more recently—whereas a growing number of journals founded since then *began* as OA electronic-only journals.

Table 4.1 shows the number of journals and percentage of those journals that don't charge APCs by starting date. The six journals founded in 2014 that were in *DOAJ* by May 2014 and had articles in the first half of the year are omitted from table 4.1 and the rest of this chapter; half of them charge APCs.

Table 4.1. Starting dates for OA journals

Year	Total	Free %
Pre-1960	44	77%
1960–69	27	59%
1970–79	47	89%
1980–89	100	75%
1990–91	36	78%
1992–93	50	90%
1994–95	89	80%
1996–97	195	84%
1998–99	223	89%
2000–01	347	83%
2002–03	439	83%
2004–05	491	80%
2006–07	705	69%
2008–09	1,000	61%
2010–11	1,800	51%
2012–13	891	54%

Before preparing this chapter, I believed that the gold rush began around 2010—and that may be true for the journals and "journals" that are *not* in *DOAJ*. But for *DOAJ* listings, table 4.1 suggests that the gold rush began in 2006–2007, the first period during which more than 25 percent of new OA journals charged fees. The percentage of free journals drops sharply from 2006 through 2010, with 2008–2009 and 2010–2011 being the only two-year periods in which more than a thousand new OA journals emerged. While it's a little early to say, the sharp

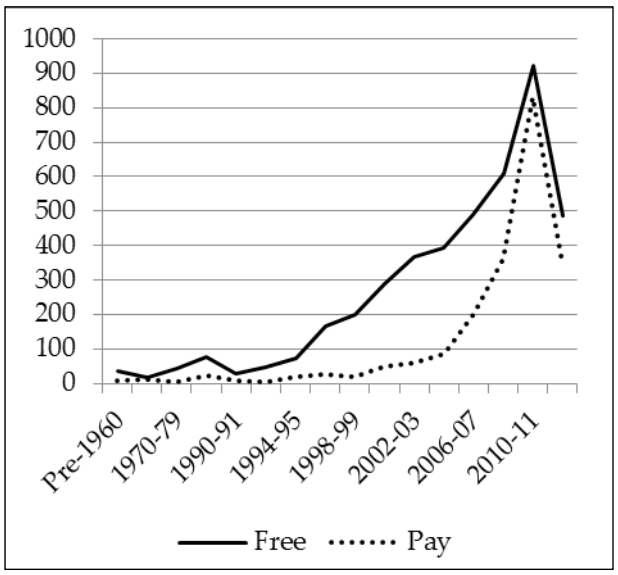

Figure 4.1
OA journals by starting date

Table 4.2. Articles per journal by starting date

Year	Journals	Articles	Art/J
Pre-1960	42	3,787	90
1960–69	27	1,859	69
1970–79	46	2,400	52
1980–89	96	5,743	60
1990–91	36	2,042	57
1992–93	47	2,971	63
1994–95	87	5,040	58
1996–97	187	14,288	76
1998–99	216	12,149	56
2000–01	335	19,056	57
2002–03	414	52,552	127
2004–05	459	24,870	54
2006–07	673	34,165	51
2008–09	941	41,160	44
2010–11	1,735	104,312	60
2012–13	884	39,816	45

decline in the number of new journals in 2012–2013 and the small increase in free percentage may suggest that the mixed side of the gold rush—that is, cases where the journals meet the standards of *DOAJ*—may be ending.

Figure 4.1 tracks free and pay (APC-charging) OA journals by starting date. While new free OA journals rise throughout the 1990s and somewhat more sharply since 2006, it's noteworthy that pay journals—near the bottom of the graph through 2004–2005—rise *very* rapidly through 2010–2011.

Table 4.3. Starting dates by subject area

Year	Biomed	STEM	HSS
Pre-1960	21	17	4
1960–69	13	7	7
1970–79	12	18	17
1980–89	30	35	35
1990–91	6	14	16
1992–93	9	16	25
1994–95	28	28	33
1996–97	46	60	87
1998–99	55	77	89
2000–01	88	109	148
2002–03	111	155	169
2004–05	110	148	226
2006–07	197	234	267
2008–09	317	320	349
2010–11	713	579	485
2012–13	279	338	246

Table 4.2 shows 2013 articles by period in which journals started and the average number of 2013 articles per journal for each starting period. The number of journals for each period is typically lower than in table 4.1 because some journals didn't publish articles in 2013.

The high article-per-journal ratio for journals founded in 2002–03 is a mystery (*PLOS ONE* came later); with that exception, overall articles per journal don't vary all that much from 1960 on.

Finer analysis (free vs. pay, subject-based) might yield some correlations, but that level of detail is outside the scope of this report. (See chapter 8: the anonymized dataset would be suitable for such analysis.)

Subject Areas

As you start to break down journals by subject area, the sense of an overall gold rush becomes something else: a combination of overall rapid growth in gold OA publishing beginning in 2006 and a gold rush in APC-charging journals that's most obvious in Biomed and somewhat less pronounced in STEM.

Table 4.3 breaks down starting dates by subject area (ignoring Megajournals and Miscellany), and it's clear that growth is fairly rapid across the board starting in 2000, becoming much more rapid in 2006–2007, then dropping off somewhat in 2012–2013. The table also shows something I find interesting: there were *more* new OA journals in the Humanities and Social Sciences than in STEM or Biomed from 1990 through 2008—but Humanities and Social Sciences

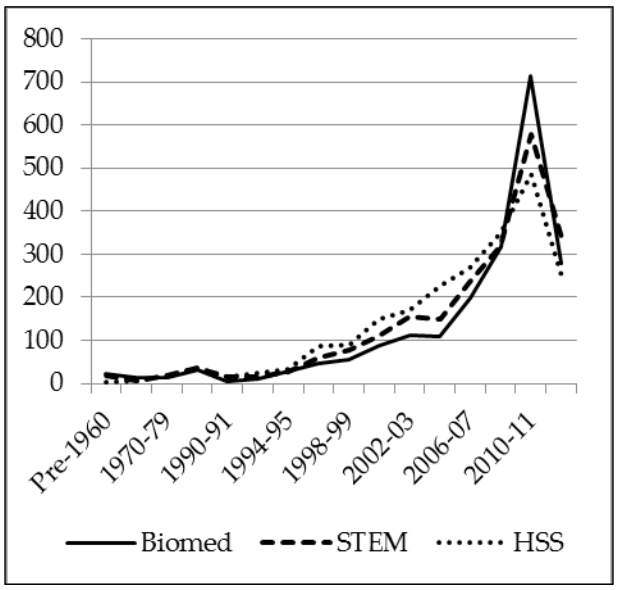

Figure 4.2
Starting dates by subject area

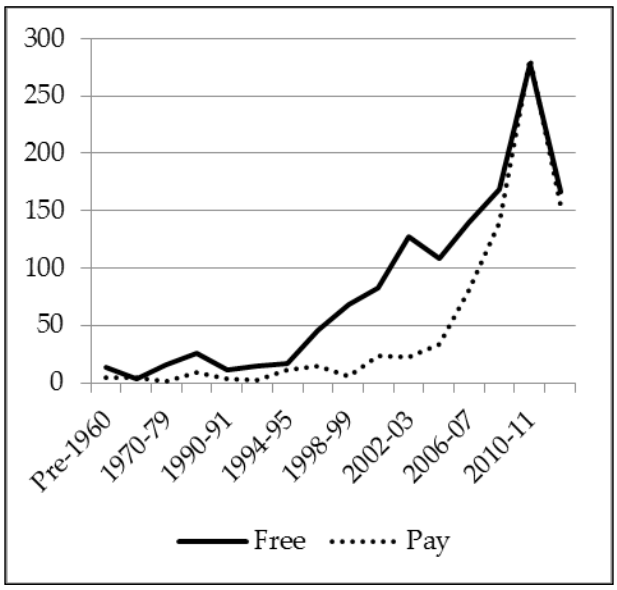

Figure 4.4
STEM journal starting dates

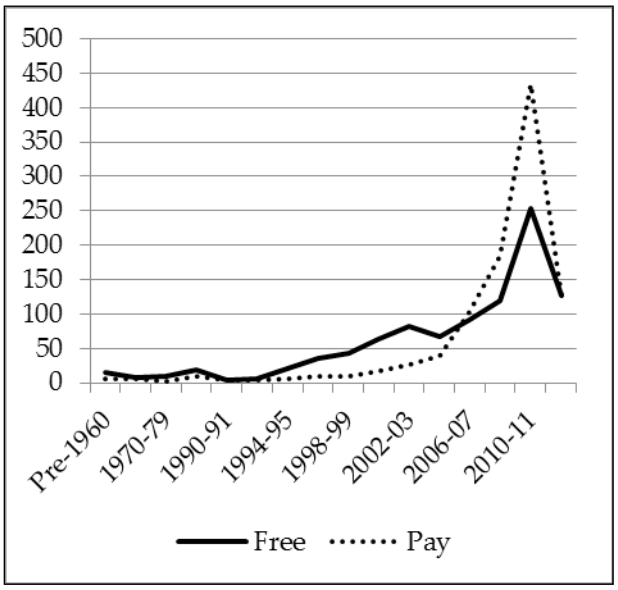

Figure 4.3
Biomed journal starting dates

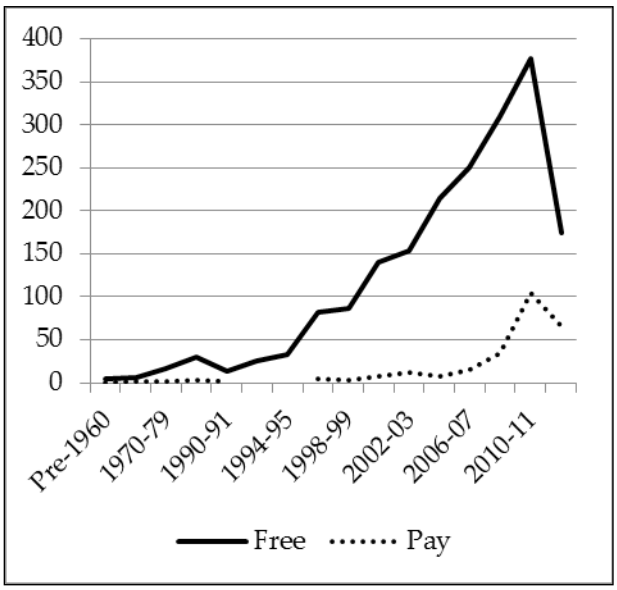

Figure 4.5
HSS journal starting dates

fall behind since then. Figure 4.2 shows the same data in the form of a graph.

While the three lines in figure 4.2 seem roughly similar, that similarity breaks down when you look at free and APC-charging journals.

Figure 4.3 shows free and pay (APC-charging) journals in Biomed by decade or two-year period, and the picture is fairly obvious: although free journals continued to emerge, they're dominated by APC-charging journals from 2006–2007 through 2010–2011, dramatically so in 2010–2011.

As figure 4.4 shows, the balance is significantly different for STEM journals. Although large numbers of fee-charging journals start emerging in 2006, free journals also proliferate enough to at least keep up with the fee-charging journals.

Finally, there's Humanities and Social Sciences, shown in figure 4.5. While there are certainly more new APC-charging journals founded beginning in 2006, they're far outnumbered by new free journals.

Is it fair to categorize the situation in Biomed as a gold rush? I'm not sure—but it's clear that the pattern

of new Biomed journals is sharply different from other fields, even as other fields participate in the booming growth of new OA journals.

Age and Grades

Are there interesting correlations between journal age and journal grade? Maybe, although so few *DOAJ* journals merit a *C* that it's stretching a point.

For *A* journals (free and with APCs under $1,000), 34 percent started before 2005, 29 percent from 2005 to 2009, and 37 percent from 2010 to 2014. But for *A$* journals, the percentages are 11 percent pre-2004, 26 percent 2005–2009, and 62 percent 2010–2014. Oddly enough, the percentages are almost identical for *B* journals: 11 percent, 22 percent, and 67 percent respectively. Finally, for the few *C* journals, 17 percent started before 2005, 33 percent 2005–2009, and 50 percent 2010–2014. In terms of a possible gold rush, I believe the *A$* percentages are most telling.