A Librarian’s View on Open Access Models

Uta Grothkopf

European Southern Observatory (ESO)

Library, Documentation, and Information Services (LDIS) Department
Background Info Astronomy
Work Culture in Astronomy

Traditionally…..

- Observatories typically in remote places
- Community (researchers and librarians) closely connected
- Tradition of sharing and exchange (of papers, data, code…)

Librarian’s View on OA Models, Uta Grothkopf, 19 Oct. 2023, Czech Republic Open Access Week
Read-Access in Astronomy

Wide-spread use of Green OA (arXiv/astro-ph eprint server) (typically without CC-BY license, so not full Open Access)

Core journals digitised and freely available back to vol. 1

Publishers provided (pre-OA) temporary access to selected recent articles

Free access to core journal content often one year after publication
Core Journals in Astronomy

Four “essential” journals
- > 35% of refereed astronomy literature
- ESO 1st-author refereed papers: 90+% in core journals

Governed by Learned Societies, publ. by commercial publishers
- Community of Member Countries’ astronomers / EDP Sciences: A&A

Community or researchers
- strongly influences publishing developments, but
- many astronomers don’t see need for OA beyond status-quo
- need OA solutions with minimal researcher burden (especially in Europe)
Open Access Business Models
## Publication Business Models

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</thead>
<tbody>
<tr>
<td>Closed</td>
<td>Subscription (incl. hybrid journals)</td>
<td>Libraries</td>
<td>Too much</td>
<td>Scientists at subscribing institutions</td>
<td>Everyone</td>
<td>No</td>
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<tr>
<td>Closed + Rights Retention</td>
<td>Subscription + Self-Archiving using Rights Retention (e.g., AAAS Science Magazine)</td>
<td>Libraries</td>
<td>Too much</td>
<td>Everyone (Author Accepted Manuscript, AAM)</td>
<td>Everyone</td>
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<td>Costs of journal subscription</td>
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<td>Gold OA (APCs)</td>
<td>Commercial and society publishers</td>
<td>Authors</td>
<td>Depends on publisher</td>
<td>Everyone</td>
<td>Paying authors</td>
<td>Yes</td>
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<tr>
<td></td>
<td>Overlay journals e.g., The Open Journal of Astrophysics</td>
<td>Authors</td>
<td>Very little</td>
<td>Everyone</td>
<td>Paying authors</td>
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<tr>
<td>Transformative Agreements (max. 3 yrs.)</td>
<td>Read-and-Publish (RAP) agreement</td>
<td>Libraries, Funding organisations</td>
<td>Based on previous subscriptions</td>
<td>Everyone</td>
<td>Authors from funding organisations</td>
<td>3 years</td>
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</tr>
<tr>
<td></td>
<td>Publish-and-Read (PAR) agreement</td>
<td>Libraries, Funding organisations</td>
<td>Calculated on estimated publishing volume</td>
<td>Everyone</td>
<td>Authors from funding organisations</td>
<td>3 years</td>
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<tr>
<td>Diamond OA</td>
<td>Subscribe to Open (S2O) e.g., Annual Reviews</td>
<td>Libraries, Funding organisations</td>
<td>Based on previous subscriptions</td>
<td>Everyone</td>
<td>Everyone</td>
<td>Yes</td>
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<tr>
<td>Library’s support</td>
<td>SCOAP3 (CERN-led HEP consortium)</td>
<td>Libraries, Sponsoring HEP organisations</td>
<td>Negotiations with publishers</td>
<td>Everyone</td>
<td>Everyone</td>
<td>Yes</td>
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</tbody>
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*The estimated cost evolution reflects the personal opinion of the author.*

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Uta Grothkopf
ESO LDIS dept.
April 2021

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### Publication Business Models

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<td>APCs</td>
<td>Paying authors</td>
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<td>Authors from funding organisations</td>
<td>3 years</td>
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<tr>
<td>Collaborative Model: Subscribe to Open (S2O)</td>
<td>Everyone</td>
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APCs (Article Processing Charges)

Concept overview

- APC-based (“Gold”) OA currently the dominant model, applied by many publishers
- APCs charged to authors for publishing
- From “readers pay” (subscriptions) to “authors pay” (publishing fees)
- No subscriptions (otherwise: “hybrid journals” → double-dipping!)
- Unintended side-effects:
  - Rise of “predatory publishers” w/o quality control
  - Bad reputation of OA

Costs

- Depend on journal (up to ~EUR 10,000 per article)
- Typically vastly increased costs for research performing organisations (many papers!)

Librarian’s View

- Access barrier shifted from reading to publishing
  - APC-based OA not equitable
  - APC waivers: well-intended, but still patronising
- Disruptive for authors who are not used to payments
- Planning a publishing budget has become difficult (impossible?)
- Requires new institutional infrastructure:
  - budget for publication costs (where? Admin? Library? ...?)
  - policies how to spend (first come, first serve??)
Overlay Journals

**Concept overview**
- APC-based OA, but low or no publishing costs
- Existing eprint infrastructure (e.g., arXiv) plus refereeing system
- Initiatives run by volunteers (researchers), based on grants (e.g., from foundations)

**Costs**
- Low, if any (few or no in-house services, e.g., copy-editing)

**Librarian’s View**
- Long-term sustainability?
- Danger of losing publishers’ expertise
- Unknown titles lack recognition
- Requires shift in research evaluation towards Open Science
Concept overview

- High-level agreements between research organisations / countries + publishers
- Often still called Transformative Agreements
- Typically provide access to publisher’s open and closed content + (some) OA publishing
- Examples: Springer-Nature, Elsevier

Costs

- Complex cost calculation: Subscription + #papers (APCs)
- Number of OA articles typically capped! High costs for additional papers (e.g., Nature EUR 9,500)
- Often higher costs than before (!)

Librarian’s View

- New dependancy on for-profit publishers (“Big Deal”)
- RAP Agreements “cement” APC-based OA model
- How about small, specialised libraries without need for access to entire publisher portfolio?
- Minimum requirements:
  - transparent and reasonable publishing costs
  - unlimited OA publishing
  - consider situation of specialised organisations
Subscription + Rights Retention

Concept overview

• Publication in closed (subscription) journal
• Funders’ requirement: use of open license (e.g., CC-BY)
• Peer-reviewed manuscripts (Author-Accepted Manuscripts, AAM) with CC-BY sent to repository
• Example: Science

Costs

• As before (subscription)

Librarian’s View

• Very promising alternative
• Results in two parallel versions of papers (Version of Record + AAM)
• Feasible only for journals with extensive content besides research articles?
• Changes the “FAIRness” of manuscripts, not of journals (no changes to traditional publishing)
Collaborative Model: Subscribe to Open (S2O)

Concept overview

• Continued library subscriptions to achieve global Open Access
• Participating libraries have previously shown interest in content
• “Free riders” problem: OA achieved only if all subscribers participate
• Examples:
  • Annual Reviews
  • EDP Sciences

Costs

• As before (subscription)
• Possible discounts (e.g., “Early Bird Renewals”)
• Decreasing fees if additional subscribers participate

Librarian’s View

• Uses existing infrastructure (budget handling), can be implemented fast
• Is predictable and equitable
• Reflects specific information needs of specialised research community
• Workflow unchanged, OA achieved —> high acceptance expected

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Conclusions
Outlook and Conclusions

Varied OA landscape
• Large mix of models during coming years
• Authors should know pros and cons of options
• Librarians play an important role in helping them decide where to publish

OA goal: Reduce / stabilise costs
• Stabilising costs: main driver of OA movement!
• Move to OA must be cost neutral; already (too) much money in the publishing system
• Avoid dependancy on (high-price commercial) publishers (no more Big Deals!)

Open Access is a paradigm shift. We must get it right!
• Already too many unintended side-effects (e.g., continued injustice of favouring authors from the Global North)
• Better OA models than APCs are available, but need more attention
• Librarians make strategic choices when enabling OA
• Let’s strive for collaborative, equitable, transparent, sustainable models

Thank you! Any questions?
uta.grothkopf@eso.org