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AIRCRAFT DESIGN AND SYSTEMS GROUP (AERO)

Open Access Publishing in Aerospace – Opportunities and Pitfalls

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Open Access Publishing in Aerospace – Opportunities and Pitfalls

Contents

- Business Models
- Definitions: Open Access, Self-Archiving
- Open Access Spectrum
- Current Debate
- Criteria for OA Publishers and Journals
- Open Access Aerospace Journals
- Personal Conclusions

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Business Models

Business Models of **traditional journals**:

- **subscription-based** (paid by libraries, eventual by the government)
- **pay per view** (paid by readers for download of a single paper)
- **Hybrid OA** (paid by author for the benefit that readers do not need to pay for his/her paper)
- **advertisement** in journal.

Business Models

Business Models of **Open Access (OA)** journals:

- **subsidized** (paid by: academic institution or learned society; eventual: by the government)
- **authors charged** (paid by: authors or their **funding agencies**; eventual: by the government)
- **institutional membership** (institutions pay a flat rate for publications of their members)
- **advertisement** on website

Open Access Directory: "OA journal business models"

Author payment models:

- **Free OA** (no payments by authors)
- **Gold OA** (moderate payments by authors;
normally around 1000 €, but vary from 500 € to 2500€.)
- **Hybrid OA** (often expensive payments by authors;
around 3000 \$)
- **Delayed OA** (embargo period, often no payments by authors)

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Introduction

Definition:

Open Access (OA) means “to provide the public with **unrestricted, free access to scholarly research** – much of which is publicly funded. Making the research publicly available to everyone – free of charge and without most copy-right and licensing restrictions”.

Budapest Open Access Initiative, 2001

The Budapest Open Access Initiative recommends establishing the “goal of achieving **Open Access** as **the default method** for distributing new peer-reviewed research”.



Introduction

Definition:

Self-archiving is a possibility to **make research results public on the Internet** independent of a publisher. Self-archiving is sometimes also called **Green OA** and means “to deposit a digital document in a publicly accessible website”.

eprints: “Self-Archiving FAQ”

Self-archiving is done for the purpose of maximizing the paper’s accessibility and citation impact. The paper can be uploaded

- to the website of the researcher,
- to the website of an organization, or better
- **to a repository** (a systematic online collection of digital documents).

**only 20%
of traditional papers**

Self-archiving is done **in parallel to traditional academic publishing**.

- A publisher with established **reputation** used for **peer review process**.
- The paper is made public in a **print journal** (with limited visibility).

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Open Access Spectrum

The Open Access Spectrum embraces **six core components**

with their *most open characteristics* they are:

1. **Reader Rights:** Free readership rights to all articles immediately upon publication.
2. **Reuse Rights:** Creative Commons License CC BY (by attribution). 
3. **Copyrights:** Author holds copyright with no restrictions. 
4. **Author Posting Rights:** Author may post any version to any repository or website.
5. **Automatic Posting:** Journals make articles automatically available in trusted third-party repositories (e.g. PubMed Central) immediate upon publication.
6. **Machine Readability:** Article full text, metadata, citations & data, including supplementary data, provided in community machine readable standard formats through a community standard API or protocol.

Open Access Spectrum

Access	Reader Rights	Reuse Rights	Copyrights	Author Posting Rights	Automatic Posting	Machine Readability	Access
OPEN ACCESS	Free readership rights to all articles immediately upon publication	Generous reuse & remixing rights (e.g., CC BY license)	Author holds copyright with no restrictions	Author may post any version to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) immediately upon publication	Article full text, metadata, citations, & data, including supplementary data, provided in community machine-readable standard formats through a community standard API or protocol	OPEN ACCESS
	Free readership rights to all articles after an embargo of no more than 6 months	Reuse, remixing, & further building upon the work subject to certain restrictions & conditions (e.g., CC BY-NC & CC BY-SA licenses)	Author holds copyright, with some restrictions on author reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to any repository or website	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 6 months	Article full text, metadata, citations, & data, including supplementary data, may be crawled or accessed through a community standard API or protocol	
	Free readership rights to all articles after an embargo greater than 6 months	Reuse (no remixing or further building upon the work) subject to certain restrictions and conditions (e.g., CC BY-ND license)	Publisher holds copyright, with some allowances for author and reader reuse of published version	Author may post final version of the peer-reviewed manuscript ("postprint") to certain repositories or websites	Journals make copies of articles automatically available in trusted third-party repositories (e.g., PubMed Central) within 12 months	Article full text, metadata, & citations may be crawled or accessed without special permission or registration	
	Free and immediate readership rights to some, but not all, articles (including "hybrid" models)	_____	Publisher holds copyright, with some allowances for author reuse of published version	Author may post submitted version/draft of final work ("preprint") to certain repositories or websites	_____	Article full text, metadata, & citations may be crawled or accessed with permission	
CLOSED ACCESS	Subscription, membership, pay-per-view, or other fees required to read all articles	No reuse rights beyond fair use/ limitations & exceptions to copyright (all rights reserved copyright) to read	Publisher holds copyright, with no author reuse of published version beyond fair use	Author may not deposit any versions to repositories or websites	No automatic posting in third-party repositories	Article full text & metadata not available in machine-readable format	CLOSED ACCESS

"HowOpenIsIt?" Open Access spectrum", © 2013 SPARC and PLOS, licensed under CC BY

HowOpenIsIt?
OPEN ACCESS SPECTRUM
SPARC PLOS OPEN ACCESS

OAS: a guide to understanding the core components of OA

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Current Debate

A **paradigm shift in the business model of academic publishing** got started.

Not all of the traditional publishers may survive, if they can not quickly enough adapt.

The “gold rush” in **starting new OA journals has not always brought quality**.

Sound and **established processes have yet to be found by the newcomers**.

At the heart of the debate is the **fear of traditional publishers to loose market share and profit**.

At the heart of the debate is the **fear to loose all quality in academic publishing**.

Current Debate

Example of a
“newcomer”:

The screenshot shows a web browser window displaying the homepage of the Antarctica Journal of Mechanical Engineering. The browser's address bar shows the URL www.domainsmars.com/ajme/ajme.html. The page features a dark background with a grid of colorful, star-like patterns. The main title, "Antarctica Journal of Mechanical Engineering", is displayed in a large, stylized, glowing blue font. Below the title, a red text line reads: "Antarctica Journal of Mechanical Engineering [{International Standard Serial Number}ISSN (under process)] publishes original research papers in all branches of Mechanical Engineering from 2012." The page includes several navigation buttons: "SUBSCRIPTION DETAILS" (teal), "EDITORIAL BOARD" (orange), "ABSTRACTS" (blue), "INSTRUCTIONS TO AUTHORS" (teal), "Buy an Article" (orange), and "VIEW THIS JOURNAL ONLINE" (purple). At the bottom, there is a section titled "Other Journals [ONLINE]" with five links: "1. Antarctica Journal of Civil Engineering", "2. Antarctica Journal of Chemical Engineering", "3. Antarctica Journal of Computer Engineering", "4. Antarctica Journal of Electronics Engineering", and "5. Antarctica Journal of Electrical Engineering". A red "HOME" button is also visible. The browser's status bar at the bottom shows the search term "transport" and the date "Samstag, 9. März 2013".

Current Debate

Open access newcomers are under heavy observation. Two possibilities exist:

To black-list journals and publishers who do not perform up to established standards.

“**Beall’s List of Predatory Publishers 2013**” is the current prominent blacklist with

- 242 OA publishers and
- 126 OA journals listed.

To white-list journals and publishers who have undergone a minimum check by a respected organization and are listed with this organization:

- The **Directory of Open Access Journals** (DOAJ) it is a first good sign.
DOAJ lists currently almost 10000 OA journals.
- The **Open Access Scholarly Publishers Association** (OASPA) doing a detailed check.
OASPA lists currently (only) about 40 OA professional publishing organizations.

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Criteria for OA Publishers and Journals

Criteria of the Open Access Scholarly Publishers Association (OASPA)

- Open Access without delay (e.g. **no embargo period**).
- Provide all necessary **information**:
 - journal's aims and scope,
 - presentation of the **editorial board**,
 - author guidelines,
 - description of the **quality control system**.
- **Full contact information** is visible on the website and **includes a business address**.
- Clear and detailed instructions for authors are present and easily located.
- All articles shall be subjected to some form of **peer-based review process**.
- Journals shall have editorial boards - members are recognized experts.
- **Any fees for publishing in the journal are clearly displayed**.
- If there are no charges to authors this should also be highlighted.

Criteria for OA Publishers and Journals

Criteria of the Open Access Scholarly Publishers Association (OASPA)

- Published articles should clearly **show the licensing policy** of the journal.
- Ideally, the policy should be equivalent to **CC BY** (also **CC BY-NC** is acceptable).
- Any direct **marketing activities shall be** appropriate and **unobtrusive**.
- OASPA will request information about the **legal status of the publishing organization**:
 - privately-owned,
 - public company,
 - not-for-profit organization or a charity.
- OASPA will request **company registration information**.
- Demonstration of the following is also desirable:
 - abstracting and indexing services for the journal(s),
 - availability of Document Identifier - **DOIs** for published content,
 - **Committee on Publication Ethics (COPE)** membership,
 - archiving policy.

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Open Access Aerospace Journals

International Journal of Aerospace Engineering

Hindawi Publishing Corporation

<http://www.hindawi.com/journals/ijae>

Origin: Egypt

Started: 2008

Fees: **600 USD**

Publisher and journal white-listed: DOAJ (SPARC Europe Seal) (**405/73000/79**), OASPA

Publisher black-listed: none

ISSN, eISSN, DOI, PDF, HTML, CC BY, copyright retained

Articles: 84 (14 per year)

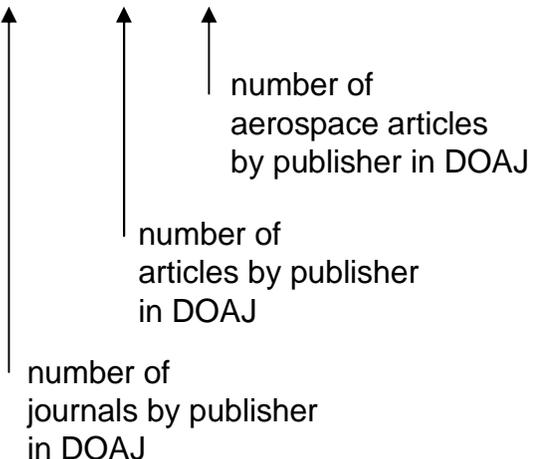
Indexed in databases/resources: 28

Editor-in-Chief: **none**

Members on Editorial Board: **75**

Reviewers acknowledged: 340

Web page appearance: good



Open Access Aerospace Journals

Open Aerospace Engineering Journal

Bentham open

<http://www.benthamscience.com/open/toaej>

Origin: USA / United Arab Emirates, ... / hidden

Started: 2010

Fees: 250 USD

White-listed: DOAJ (106/139/0)

Black-listed: Beall (no comments given), Linköpings Universitet

ISSN, PDF, CC BY-NC, copyright retained

Articles: 20 (7 per year)

Editor-in-Chief: Dan Mateescu, Canada

Members on Editorial Board: **84**

Web page appearance: “less convincing”

Open Access Aerospace Journals

Journal of Aeronautics & Aerospace Engineering

OMICS Group

<http://www.omicsgroup.org/journals/jaaehome.php>

Origin: USA / India

Started: 2012

Fees: 919 USD

White-listed: DOAJ (1/207/0)

Black-listed: Beall (no comments given), Linköpings Universitet

ISSN, HTML, PDF, Audio, CC BY, copyright retained

Articles: 21 (10 per year)

Indexed in databases/resources: 4

Editor-in-Chief: Prof. Raffaele Savino, Italy

Members on Editorial Board: 47

Web page appearance: “less convincing”

Open Access Aerospace Journals

Frontiers in Aerospace Engineering (FAE)

Science and Engineering Publishing Company

Journal: <http://www.fae-journal.org>; Publisher: <http://www.seipub.org>

USA / China

Started: 2012

Fees: 0 USD (in 2013)

Publisher white-listed: none

Publisher black-listed: Beall (comments outdated)

ISSN, eISSN, PDF, CC BY-NC-ND, copyright ret.

Articles: 22 (22 per year)

Indexed in databases/resources: 15

Editor-in-Chief: Prof. Pizhong Qiao

Members on Editorial Board: 10

Web page appearance: good

Open Access Aerospace Journals

Advances in Aerospace Science and Technology (AAST)

Scientific Research Publishing

<http://www.scirp.org/journal/aast>

USA (registration) / China (offices)

Started: 2013, Fees: 300 USD

Publisher white-listed: DOAJ (**127/19000/0**), application: OASPA

Publisher black-listed: Beall (no comments given)

CC BY or CC BY-NC, copyright retained

Editor-in-Chief: Prof. Dieter Scholz, Germany

Members on Editorial Board: 10

STARTUP!

Open Access Aerospace Journals

INCAS Bulletin

National Institute for Aerospace Research (INCAS)

<http://bulletin.incas.ro>

Origin: Romania

Started: 2009

Fees: 0 USD (according to DOAJ), no information given on web page, response to email:
no fee, **international authors welcome**

Publisher white-listed: DOAJ (1/277)

Open Access Aerospace Journals

European Transport Research Review

Springer

<http://www.springer.com/engineering/civil+engineering/journal/12544>

for the

European Conference of Transport Research Institutes (ECTRI)

<http://www.ectri.org>

Origin: Germany

Started: 2009

Articles: 110 (28 per year)

Fees: 0 USD (according to – information delivered to – DOAJ), no information given on web page, **response to email: 1250 EUR** (if not sponsored by ECTRI)

Publisher and journal white-listed: DOAJ (**105/13000/0**), **OASPA member**

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Personal Conclusions

- OA is the way for the future.
- Green OA and **self-archiving** is possible. This however **is not a final solution**.
- Commercial **OA Journals** obviously **need** to charge **publication fees** in some form.
- **Two different approaches:**
 - 1.) Funded organizations (universities, research establishments, societies) could handle smaller OA aerospace journals (**like** the **INCAS Bulletin**) based on PDF articles and basic and simple HTML web pages or based on the Open Journal Systems (OJS). OA publishing would be **free of charge**.
 - 2.) In the same way as companies like **e.g.** Airbus are **cooperating with China**, editors-in-chief can get active and can build quality into existing or startup journals from such countries offering **low cost** OA publishing.

Personal Conclusions

Let every nation bring in their strength.

**Let's not destroy,
but rather **let's work together** in this world,
share our knowledge and
let's live in peace!**