PROCEEDING

Digital Scholarly Communication

International Webinar Series

Jakarta
30 Maret, 28 April, 19 Mei 2021

Indonesian Academy of Sciences

DIGITAL SCHOLARLY COMMUNICATION
PROCEEDING

International Webinar Series
Jakarta,
31 March, 28 April & 19 May 2021

Published by: AIPI – Akademi Ilmu Pengetahuan Indonesia

ADVISORY & ORGANIZING COMMITTEES

International Advisory Committees
1. AASSA Executive Board
2. Prof. James Fox, Academy of Social Science Australia / ANU
3. Prof. Zabta Khan Shinwari, PAS / UNESCO Expert in Open Science

Local Advisory Committees (AIPI)
1. President of AIPI
2. Secretary General
3. Chair of Social Commision

Organizing Committees
Secretariat General team, Professional Assistance team,
Indonesian Young Academy of Sciences (ALMI)

Technical Committees & Correspondence
aipi.aassa2021@gmail.com
Finarya Legoh, Idawati H.M. Yara, Tjempaka Sari, Sigit. A. Santa
Pepi Oktayani, Mohammad Husein, Noviar Rusdiana, Shita Azalia, Ramdhani

TABLE OF CONTENT

AASSA – AIPI International Webinar on
DIGITAL SCHOLARLY COMMUNICATION

Jakarta,
31 March 2021
28 April 2021
19 May 2021

Jointly Organized by
Association of Academies and Societies of Sciences in Asia (AASSA)
Indonesian Academy of Sciences (AIPI)

Supported by
InterAcademy Partnership (IAP)
Academy of the Social Sciences in Australia (ASSA)

BACKGROUND OF WEBINAR

Scholarly communication is central to the academic endeavour. Scientific inquiry depends upon critical communication among researchers and the transmission of ideas among academic institutions. Present technology and global internet communication have enhanced the possibilities of scholarly communication beyond comprehension, and in the process, this spectacular enhancement has made scholarly communication one of the most complex and contentious issues in academia today.

The prestige of established publishing and the rankings of universities whose members depend on recognized sources of publication still affect the institute budgets, collaboration and publication of e Berlin Open Access Conference. This plan mandates scientists and researchers whose work was state-funded to publish their results in open repositories and journals. Those issues involved in scholarly communication have come to the fore for considered and substantial discussion of these issues and their complications.

The Indonesian Academy of Sciences (AIPI) with the collaboration with AASSA, IAP and ASSA arrange this Webinar that invites academies and institutions concerned with the issues to join an **International Webinar on Digital Scholarly Communication**. Given widespread and growing concerns for the general theme, we have designed a program consisting of a series of three events scheduled for **31 March, 28 April and 19 May 2021** when the above issue will be discussed in light of current international debates and to explore them in relation to specific national and regional concerns.

THEMES OF WEBINAR SERIES

Three Sub-themes of the Digital Scholarly Communication Webinar:
1. **31 March 2021**:
   Regional Patterns of Digital Scholarly Communication and Publications
2. **28 April 2021**:
   Access to Digital Scholarly Publications: Strategies, Applications & and Impacts
3. **19 May 2021**:
   Publication and Dissemination of Digital Scholarly Communication

PARTICIPATORY

We invite participants (academicians, regulators, researchers, librarians, general interest, government officers, etc.) interested in joining this Webinar, through Zoom application and YouTube access.
The link to register is: http://bit.ly/AIPIAASSA
Details of the meeting (Zoom access / YouTube) will follow in due course upon your registration.
The implementation of the events run during 13:00 -16:00 (Jakarta time).

WELCOMING REMARK

Prof. Dr. Satryo Soemantri Brodjonegoro

President of Indonesian Academy of Siences (AIPI)

Emeritus Professor in Mechanical Engineering, ITB

Satryo Soemantri Brodjonegoro has a long and distinguished academic and public service career.

President of the Indonesian Academy of Sciences (AIPI) and a fellow of AIPI since 2008

AASSA – AIPI International Webinar on DIGITAL SCHOLARLY COMMUNICATION Series 1 to 3

Jakarta,
31 March, 28 April & 19 May 2021

Welcoming Remarks
President of the Indonesian Academy of Sciences
Prof. Dr. Satryo Soemantri Brodjonegoro

Assalamualaikum ww.

Good afternoon and a warm welcome to the AASSA-AIPI International Webinar on Digital Scholarly Communication, to distinguished invitees, President, Executive Board, and Members of AASSA, honorable speakers, committees, colleagues and participants,

It is an honor for me to welcome all of you in the three Series of Webinar for Digital Scholarly Communication". The webinar is organized by the Indonesian Academy of Sciences (AIPI) and the Association of Association of Academies & Societies of Sciences in Asia (AASSA), supported by the Inter Academy Partnership (IAP) and the Academy of the Social Sciences in Australia (ASSA).

I would like to convey our special appreciation to the Minister of Science & Technology / Head of BRIN, Prof. Bambang Permadi S. Brodjonegoro; the Directorate General of Higher Education of the Ministry of Education & Culture, Prof. Nizam; and the Under-Secretary-General of the United Nations & the Executive Secretary of ESCAP, Prof. Armida Salsiah Alisjahbana; who could spend their time and thoughts in these Webinars, as we share the same important concerns about the future development of digital scholarly communication, its benefits and obstacles. We also grateful to our institutional partners those mentioned above in realizing this event, as well as to the respective speakers, chairpersons, advisory and organizing committees, colleagues and participants. Without the support and contribution from all of you, it would be impossible to organize this event successfully.

The first series was implemented on 31 March 2021, it was attracting approximately 200 participants successfully throughout Zoom and the same applied from YouTube; the second series on 28 April 2021 was attracting about 350 participants from Zoom; and the third Series on 19 May 2021 was attended by 390 participants from Zoom and about 170 from YouTube.

Let me briefly explain about the Indonesian Academy of Sciences (AIPI). AIPI is an independent institution that was formed to increase the role of Indonesian scientists, in providing opinions, suggestions and considerations regarding the mastery, development and application of science and technology to the government and society.

AIPI fellows consist of leading scientists in various fields of science and technology, which are divided into several commissions, namely: Basic Sciences, Engineering, Medical Sciences, Social Sciences and Culture. The Engineering Commission currently has been expanded into the Academy of Engineering and the Academy of Food & Nutrition, under the auspices of AIPI.

The networked digital environment has enabled the creation of many new kinds of works that are accessible to end users directly. The motives behind its emergence are linked to the desire of making the most possibility used opened up by computer access and networks. Present technology and digital communication expand the possibilities of communication beyond comprehension. These make the knowledge accessible and transparent, and shall be shared and developed through collaborative networks.

The same innovative spirit leading to open access also led to exploring new publishing models with open access as a basis. Many of these resources have become essential tools for scholars conducting research and disseminating their ideas and work. In the process, then, this spectacular enhancement has made scholarly communication become more complex and contentious issues in academia nowadays.

As UNESCO stated that Open Science is the movement to make scientific research and data accessible to all levels of inquiring society, amateur or professional. It includes practices such as: publishing open scientific research, campaigning for open access and generally making it easier to publish, and to communicate scientific knowledge.

However, there are problems escalated that should be tackled in the Open Access movement. Although the access is open and free, but the production of information / literature is not free and put the burden to the publishers and the researchers, emerging predatory publishers and raising misconduct of research.

That is why this concern derives AIPI's effort in campaigning putting the ethics as well as open sciences, in the spirit of development and dissemination of science and technology for all. The same innovative spirit leading to open access also led to exploring new publishing models with open access as a basis. Many of these resources have become essential tools for scholars conducting research and disseminating their ideas and work.

By organizing this series of Webinar and put forward the concerns in digital scholarly communication, AASSA, AIPI, IAP and ASSA hope to perceive the increasing access to the most up-to-date literature on any topics by the less advantaged, as individuals and / or members of institutions in less developed countries. In these regards, it should be narrowing the wealth gap of access to digital scholarly communication.

We hope the Webinars can get the benefit in encouraging science and technology to be more connected to societal needs, and by promoting equal opportunities for all to: scientists, innovators, public policy-makers and citizens. The discussion should come up with positive ideas in capturing and benefitting the development of digital scholar communication, and on the same time to tackle the contentious issues. We then, should identify statements that are put forward to the respective governments, stakeholders, concerned scholar communities, to capture the movement of open access and on the same time to promote the proper model of distribution of scholarly research and communication.

Thank you and appreciate for your concern and interest in joining these Webinars. Hope the success of this webinar, I wish you all stay safe and healthy.

Prof. Satryo Soemantri Brodjonegoro

President of AIPI

CONGRATULATORY REMARKS

Prof. Yoo Hang Kim

President of the Association of Academies & Societies of Sciences in Asia (AASSA)

Emeritus Professor in Chemistry, Inha University, Korea

Yoo Hang Kim has a long and distinguished academic activities as a Research and Visiting Professor in Many Countries such as France, USA

Board Director the Korean Academy of Sciences since 2013 and Auditor Korean Institute of Energy Reasearch since 2014

The AASSA President's Message

The AIPI-AASSA Webinar for
"Digital Scholarly Communication"

It is a great honor and privilege for me to welcome all the participants in the AASSA-AIPI International Webinar on "Open Science, Digital Scholarly Communication."

Until not a long time, say a decade or two ago, the production and dissemination of scientific knowledge along with their application to practical uses was solely the responsibility of scientists themselves. We, the scientists, talked among ourselves in our own language and it took a year or two to get our research results published in academic journals the existence of which was rarely known outside the scientific community.

The recent breakneck development of ICT, however, has brought a paradigm change to how we communicate among ourselves and how scientists and laypeople get access to up-to-date scientific and technical knowledge. S&T knowledge is abundant and ubiquitous in social media and access to them is instantaneous with a few strokes on the keyboard.

Even though technical barriers are all but abolished nowadays, there still is a formidable barrier to both publication of the research results and access to them, that is money barrier. Nowadays most academic journals

are published by commercial companies and publishing in them costs greatly to authors and/or research organizations. Also, subscribing to scholarly journals cost tens of millions of US dollars a year which is a great burden even to the most prestigious research universities in the HDCs. It is an insurmountable barrier to scientists and research organizations in the MDCs and LDCs. This barrier undoubtedly hampers prompt and timely dissemination of new scientific discoveries, and thus, is detrimental to achieving the ultimate goal of science, which is contributing to the wellbeing of humankind.

Recognizing this, since the Budapest Open Science Initiative declaration in 2002, scientists have tried to remove various barriers - such as financial, legal, technical, etc. - in order to publish and access the research results free of charge and they have articulated the concept of Open Science. International organizations also took up this challenge and the UNESCO General Conference at its 40th session in November 2019 also declared to prepare a recommendation on OPEN SCIENCE. I understand that the preparation of the draft recommendation has been progressing smoothly, and, if everything goes on schedule, the recommendations are expected to be adopted by the UNESCO General Conference at its 41st session.

Recently, Lee and Haupt published an article in Higher Education (https://doi.org/10.1007/s10734-020-00589-0) titled 'Scientific globalism during a global crisis: research collaboration and open science publications on COVID-19.' In the study, they found out that among the 3401 COVID-19 related articles published from January 1 to May 9, 2020, 2576 articles (75.74%) were open science articles while the proportion of open science articles from January 1, 2015 to December 31, 2019, was only 28.9%. Even though this remarkable increase undoubtedly reflects

The rare pandemic situation, it is still a very encouraging sign showing a clear and strong trend toward open access publication.

However, there are still many obstacles in attaining a much broader acceptance of open access. There exist serious conflicts of vested interest among the various stakeholders such as authors, universities research institutes, funding agencies, publishers, and even national governments. I hope that, with Solomonic wisdom and collective intelligence, these webinar

series come up with an Open Science framework and concrete policy recommendations acceptable to all stakeholders, and especially, beneficlal to MDCs and LDCs in Asia and the Pacific region.

AASSA workshop is a forum to exchange ideas and experiences both for the success and also the failure experiences that we should know each other for the lesson learnt and the benefit of humankind, that should not be left among us ourselves. The information must be digested and communicated to all stakeholders including to policy makers, scientific community and general public.

Through collective intelligence of participants and speakers, we should come up with good recommendation to all stake holders and members of academies. AAASSA secretariat then disseminate the recommendation to all members so that it can be used as to fit to purposes.

In closing, I would like to express my heartfelt gratitude to all speakers and participants for their time and effort, and especially the organizers, staff, and officers of the AIPI for hosting this webinar series during this difficult time.

Prof. Yoo Hang Kim
President, AASSA

Main Agenda of International Webinar

01 **Greetings and Keynote Speech, Opening**
President of AIPI, President of AASSA, and Minister of R&T/BRIN

02 **Discussion Session 1**
Chairperson: Prof. Dewi Fortuna Anwar – Indonesian Academy of Sciences (AIPI)

03 **Discussion Session 2**
Chairperson: Prof. Anjana Singh – Nepal Academy of Science & Tech

04 **Wrap-up**
Chairpersons

Terms and Conditions
AASSA -AIPI International Webinar

- **The AASSA - AIPI Organizing Committee is freed from all legal responsibilities for all legal consequences that occur for the virtual services provided.**

- **The participants are deemed to know and agree to personal responsibility for any consequences arising from the choice provided by the Organizing Committee.**

Terms and Conditions
AASSA -AIPI International Webinar

01 The entire program will be recorded. The Webinar can be followed by the Zoom App. or You Tube.

02 The webinar will start at 13.00 Jakarta Time. Thank you to the participants who have registered for this webinar.

03 Participants must use their real names and institution

04 The microphone function is muted when the speaker starts the presentation

05 Question & Answer Sessions are facilitated through the Q&A Room, or using direct interaction by the rise hand menu

06 The Photo Sessions will be carried out under the command of the officer

Opening Greetings and Keynote Speech

01 **Welcoming Remarks**

Prof. Dr. Satryo Soemantri Brodjonegoro
President of Indonesian Academy of Sciences (AIPI)

02 **Congratulatory Remarks**

Prof. Yoo Hang Kim
President of Association of Academies and Societies of Sciences in Asia (AASSA)

03 **Keynote Speech and Opening**

Prof. Bambang Permadi Soemantri Brodjonegoro, Ph.D.
Minister for Research and Technology / Head of National Research and Innovation Agency

" Keynote Speech and Opening

"

13.30 - 13.40

Opening and Keynote Speech

Prof. Dr. Bambang PS Brodjonegoro, Ph.D

Minister of Research and Technology / Head of National Research and Innovation Agency

Professor in Department of Economics, the University of Indonesia

Bambang Permadi Soemantri Brodjonegoro has a long and distinguished academic and public service career either national and International.

Former Minister of National Development Planning/ Head of Bappenas, Minister of Finance Republic of Indonesia

Regional Patterns of Digital Scholarly Communication and Publication

Prof. Bambang P. S. Brodjonegoro, Ph.D.
Minister of Research and Technology/
Chief of National Research and Innovation Agency

bambangbrodjonegoro bambangpsbrodjonegoro

AASSA – AIPI International Webinar on Digital
Scholarly Communication

Jakarta, March 3rd 2021
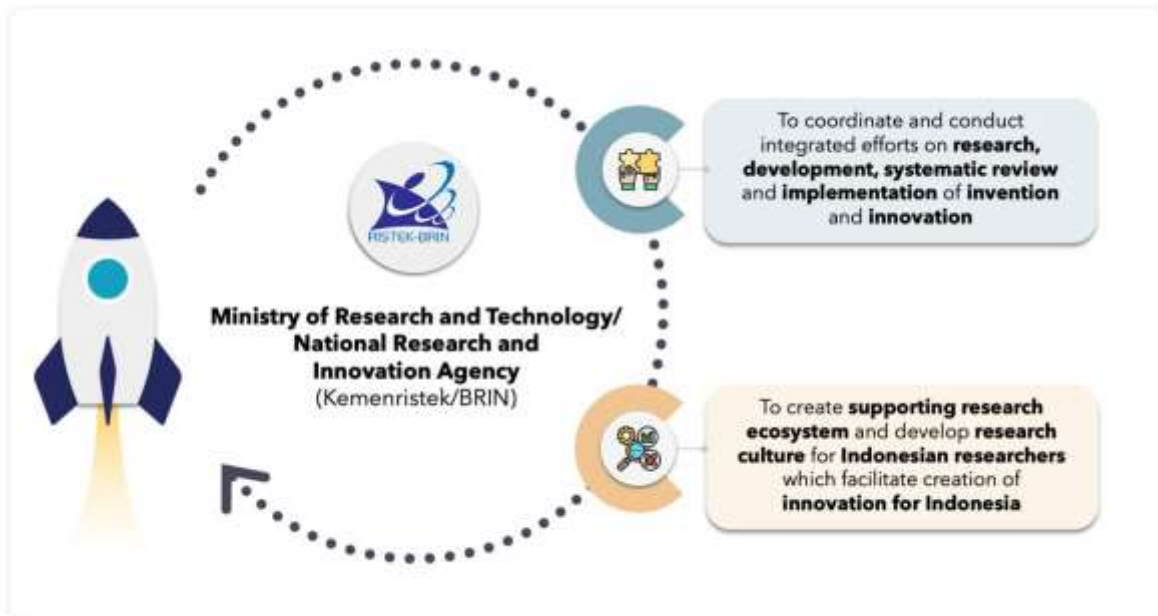
Copyright © KRt, 2021, Ministry of Research and Technology / National Research and Innovation Agency (BRIN), Republic of Indonesia

Improving Research-Innovation Ecosystem

Escaping From Middle-Income Economy Trap	Innovation Driven Economy
Improving Competitiveness Index	Boosting Innovation
Fulfilling People Expectation (Role of University)	Agent of Economic Development
Improving University Competitiveness	Increasing International Publication

Improvement of Competitiveness and Welfare of the People and the Nation

Contributing to Development of **Arts, Science and Technology**

Source: The Ministry of Industry, 2018

Copyright © KRt, 2021, Ministry of Research and Technology / National Research and Innovation Agency (BRIN), Republic of Indonesia

Scholarly Communication (1/3)

Scholarly Communication (2/3)

Scholarly Communication (3/3)

Stakeholders:

- Publishers
- Scholars/Researchers as authors
- Libraries

- Scholars Researchers as readers
- Practitioners, educators (and their students), and other social groups with professional or personal interest in research (e.g. patients, civil servants, citizens involved in specific issue, etc.).
- Universities and research centers
- Research funding agencies and policymakers

Different topics involved:

- Peer review
- Publication
- Collection
- Acquisitions
- Information discovery
- Access, etc.

Source: Adapted from Adrian K. Ho. (2010). The University of Western Ontario.
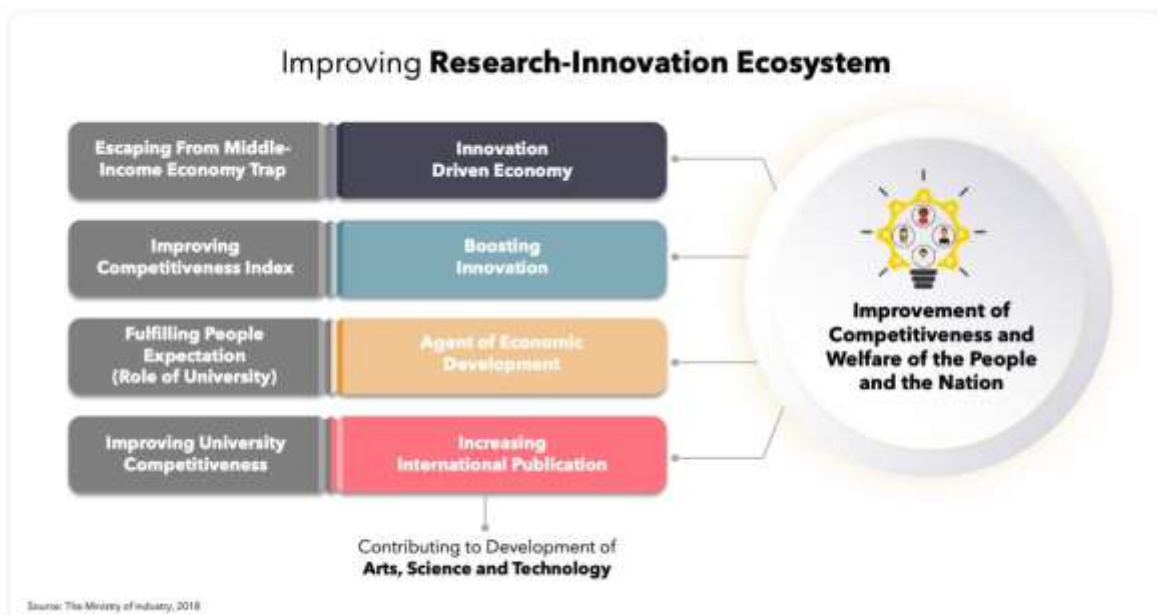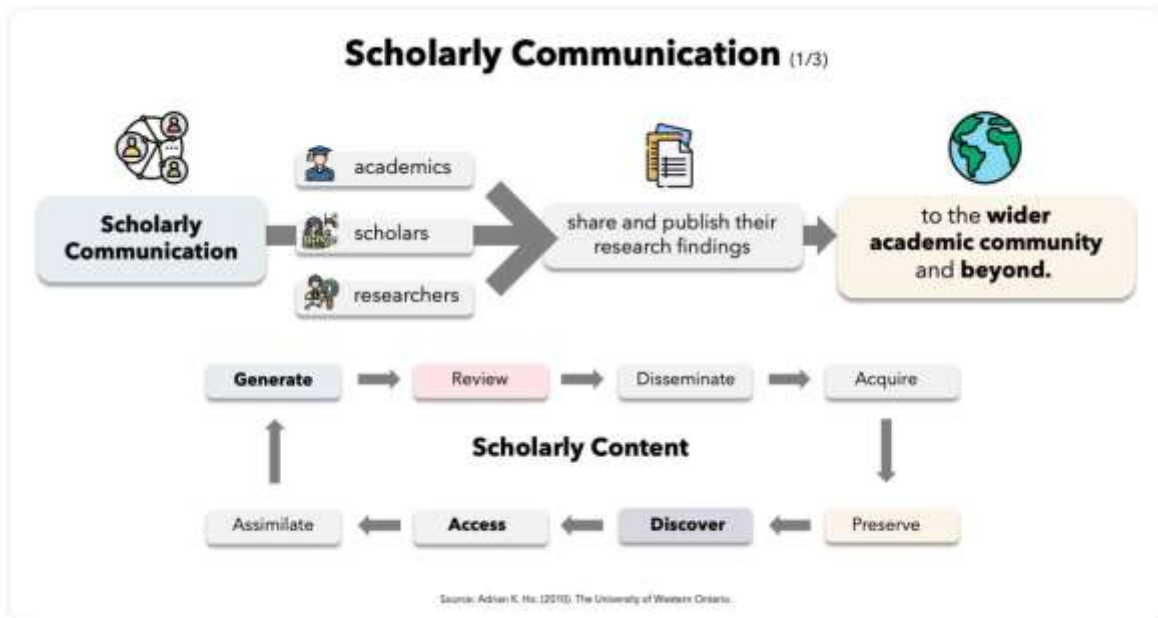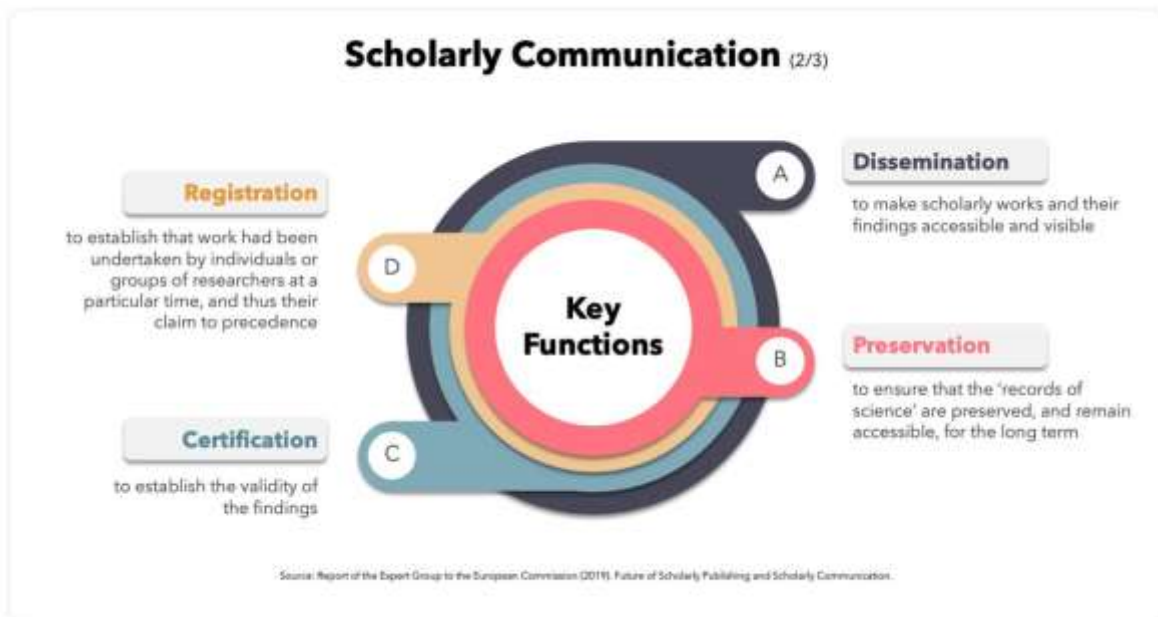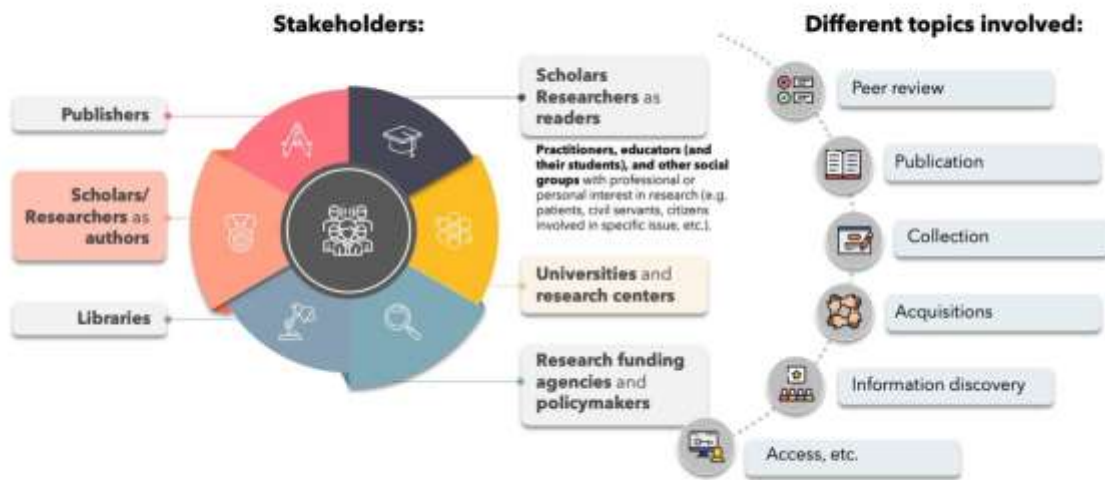

Timeline of Key Developments in Scholarly Publishing

01 1945 - 1970 Rapid Growth
A new market emerges as journals are competing through rankings, not the individual article. Promotion and tenure are granted based on what journal the researcher is published.

1971 - 1995 Print Publishing
The cost of print journal subscriptions continues to rise year over year resulting in the Serial Pricing Crisis.

03 1996 - 2004 Digital Age
Libraries are no longer purchasing tangible objects (books, journal issues); they negotiate digital licenses to access online content.

04 2005 - recent Open Access
The research ecosystem moves beyond Open Access to Open Science. Four functions of publishing re-organized: registration, certification, dissemination, preservation.

The nature of **digital publishing** creates the possibility for **more dynamic use of data**.

Scholars continue to expand the role of **data** in their research.

Research generates greater quantities of data than ever before

Source: Kopanz, Nancy. (2014). Where the 'Thing' is a Digital Scholarly Publication: Connecting Publications to Linked Data; and Report of the Expert Group to the European Commission (2019). Future of Scholarly Publishing and Scholarly Communication.

Benefits of Open Access

lowering **impact** barriers

Wide dissemination
- papers more visible
- cited more

Rapid dissemination

Value-added services
- hit counts on papers
- personalised publications lists
- citation analysis

Cross-searchable

Ease of **access**

lowering **access** barriers

For the institution
- raising profile and prestige of institution
- managing institutional information assets
- accreditation / performance management
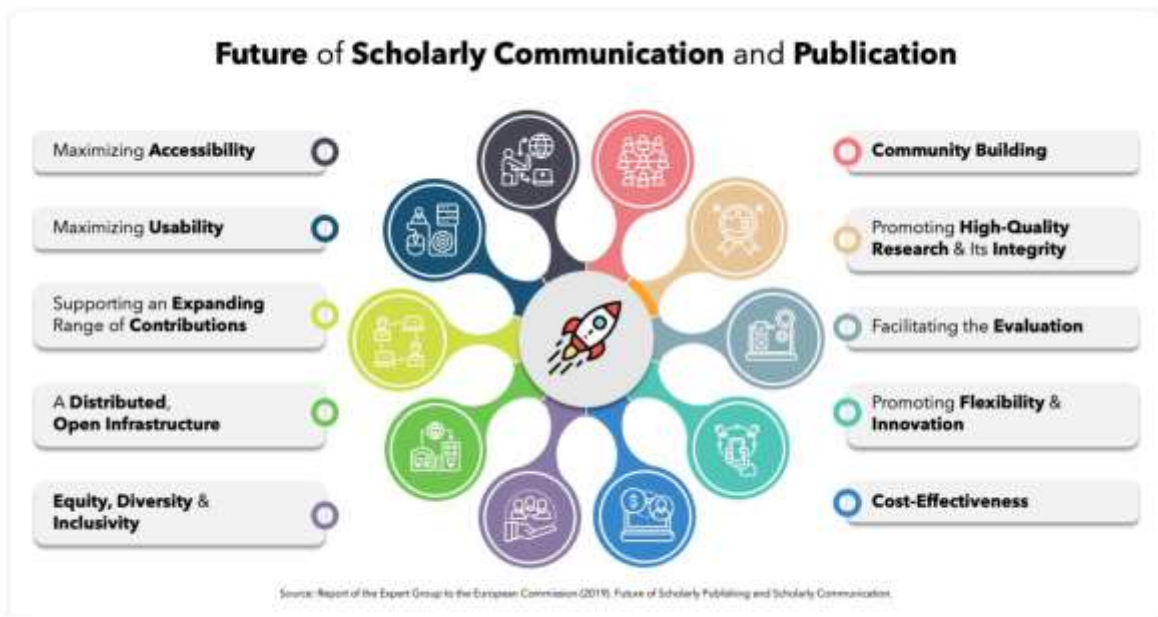- long-term cost savings

For the research community
- 'frees up' the communication process
- avoids unnecessary duplication

Source: Hubbard, Bill (2015) Institutional Eprint Repositories, University of Nottingham

Future of Scholarly Communication and Publication

Maximizing **Accessibility**

Maximizing **Usability**

Supporting an **Expanding** Range of **Contributions**

A **Distributed, Open Infrastructure**

Equity, Diversity & **Inclusivity**

Community Building

Promoting **High-Quality Research** & Its **Integrity**

Facilitating the **Evaluation**

Promoting **Flexibility** & **Innovation**

Cost-Effectiveness

Source: Report of the Expert Group to the European Commission (2019), Future of Scholarly Publishing and Scholarly Communication.

Digital Transformation

COVID-19 Pandemic Brings New Hope for Digital Transformation: President Jokowi

Jokowi Ingin Pandemi Covid-19 Jadi Momentum Percepatan Transformasi Digital

Kemenristek/BRIN Digital Scholarly Communication and Publication

01 Simlitabmas
Research and Community Service Information Systems
https://simlitabmas.ristekbrin.go.id/

02 Sinta
Science Technology Index
https://sinta.ristekbrin.go.id/

03 Arjuna
National Journal Accreditation
http://arjuna.ristekbrin.go.id/

04 Garuda
Digital Reference Systems
https://garuda.ristekbrin.go.id/

05 Anjani
Indonesian Academic Integrity Platform
http://anjani.ristekbrin.go.id/

06 Rama
Repository for Student Final Assignments
http://arjuna.ristekbrin.go.id/

07 IDMenulis
Indonesian Scientific Writing Network
https://idmenulis.ristekbrin.go.id/

08 Rujukan
Indonesian scientific journal house
https://rujukan.lipi.go.id/

09 E-Resources
Access to journal articles database

"

Discussion
Session 1

13.50 - 14.45

Discussion Session 1

CP1   **Prof. Dewi Fortuna Anwar - AIPI Fellow/Research Professor LIPI**
Chairperson for Discussion Session 1

01   **Ms. Roxanne Missingham– Australian National University**
"Scholarly communication in Australia: how has open access changed the landscape."

02   **Prof. Mayling Oey-Gardiner – Chair for the Commission of Social Sciences, AIPI**
"How Indonesian Scholars Join the Race."

03   **Prof. Zabta Khan Shinwari – AASSA / Pakistan Academy of Sciences**
"Activities on Open Science Through UNESCO."

Discussion Session 1

Prof. Dewi Fortuna Anwar

✔ Dewi Fortuna Anwar is an academician of the Indonesian Academy of Sciences (AIPI), a Research Professor Indonesian Institute of Sciences (P2P-LIPI).

✔ Chairman of the Board of Directors of The Habibie Center (THC) based in Jakarta. In 2010-2017 Dewi served as a Deputy Secretary to the Vice President of the Republic of Indonesia and from 2001 to 2010 as Deputy Chairman for Social Sciences and Humanities-LIPI.

✔ Anwar was the Kippenberger Visiting Chair at the Centre for Strategic Studies, Victoria University of Wellington in 2018, a Distinguished Visiting Professor at the S. Rajaratnam School of International Studies (RSIS), NTU, Singapore in 2017-2018, a Distinguished Visiting Fellow at CSEAS, Kyoto University in 2010 and a Distinguished Visiting Professor at SAIS, Johns Hopkins University in 2007.

✔ She has written widely on Indonesia's foreign policy, and ASEAN regional political and security issues. Dewi sits and has sat in a number of national and international advisory boards including the Centre for Humanitarian Dialogue (HD), the Stockholm International Peace Research Institute (SIPRI) in 2010-2020, the Weapons of Mass Destruction Commission (WMDC) in 2004-2008, and the UN Secretary General's Advisory Board on Disarmament Matters in 2008-2012.

Research Professor at the Indonesian Institute of Sciences (LIPI)

Ph.D - Monash University, Melbourne, Australia; MA, SOAS, University of London, England.

International political science professor with a wealth of experience in high-level government agencies both nationally and internationally

Discussion Session 1

Ms. Roxanne Missingham

✔ **Roxanne Missingham is University Librarian and Chief Scholarly Information Officer, Australian National University responsible for ANU libraries, archives, press, records, privacy, copyright and digital scholarship.**

✔ **She was previously Parliamentary Librarian and Assistant Director General, Resource Sharing Division, National Library of Australia. She has a long career in libraries and IT focused on the development of digital delivery and digital services.**

✔ **Formerly President of the Australian Library and Information Association (ALIA), she is currently a copyright lead for the Council of Australian University Librarians and member of national and international digital research library committees.**

University Librarian and Chief Scholarly Information Officer, ANU responsible for ANU libraries

Roxanne research focus on digital libraries. She has more than 200 publications and presentations.

Formerly President of the Australian Library and Information Association (ALIA), she is currently a copyright lead for the Council of Australian University Librarians

Scholarly Communication in Australia: How has Open Access Changed the Landscape

Roxanne Missingham, University Librarian, Australian National University
Email: Roxanne.Missingham@anu.edu.au

The challenges within the scholarly communication ecosystem through open access have resulted in a fundamental shifting in the dissemination and readership of scholarly publications. Across the nation bold experimentation in terms of new scholarly outputs and reformation of university presses have led to a significant step forward in terms of international engagement, encouragement of scholarly communication capabilities in the academic community and benefits to inclusion of policy makers within the scholarly communications ecosystem.

Three university presses moved to open access models over the past two decades. The Australian National University (ANU) Press has sustained the transition achieving more than 5.14 million downloads across the world in 2020. The multidisciplinary publishing has resulted in innovation in terms of research and education publications. One university press has closed, with the other reshaping its offerings. Both ANU and University of Technology Sydney press have taken an innovative approach to student journals.

This presentation will focus on the changes in presses contextualising with within international trends. Assessing the nature of impact and engagement will provide a backdrop for insights of open access and innovation ins scholarly publishing.

AASSA – AIPI International Webinar on Digital scholarly communication

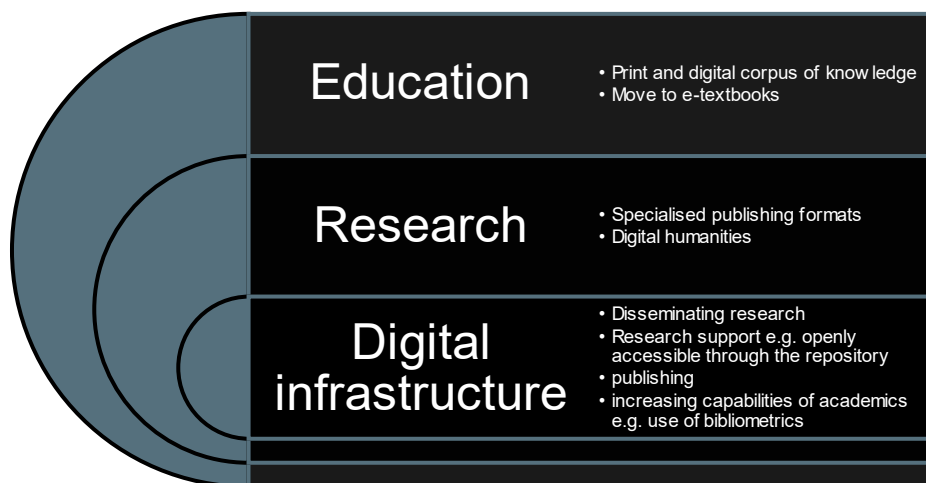**Australia: Patterns of Digital Scholarly Communication and Publication**

Roxanne Missingham
University Librarian

- Australian digital scholarly communication
- University libraries and publishing – knowledge ecosystem for OA
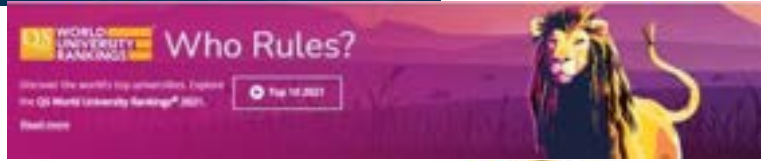- Dissemination of university knowledge and value

2

Australian National University

University perspective – scholarly communication

Education	• Print and digital corpus of knowledge • Move to e-textbooks
Research	• Specialised publishing formats • Digital humanities
Digital infrastructure	• Disseminating research • Research support e.g. openly accessible through the repository • publishing • increasing capabilities of academics e.g. use of bibliometrics

4

Excellence

5

Australian open access environment

- major federal research funders action:
  - the Australian Research Council (ARC) open access policy first released in 2012
  - National Health and Medical Research Council open access policy first released in 2013

> The NHMRC Open Access Policy is consistent with the
> Australian Government's commitment to open access, open
> data and intellectual property (IP) management.

6

Open access publishing

TYPES OF OPEN ACCESS

ANU Press

13

Dissemination of university knowledge

Institutional Repository: Research Outputs	1,348,677
Institutional Repository: Research Outputs (Usage)	30,440,934

CAUL statistics 2019 https://statistics.caul.edu.au/index.php
Australian University libraries dataset

14

Australian
National
University

Dissemination of university knowledge

- Digital initiatives
  - Institutional repositories
  - digitisation of collections
  - Theses
- Research data

15

Australian
National
University

Benefits

16

COMPARISON COUNTRIES CATEGORIES OF OPEN ACCESS
EVOLUTION OVER TIME
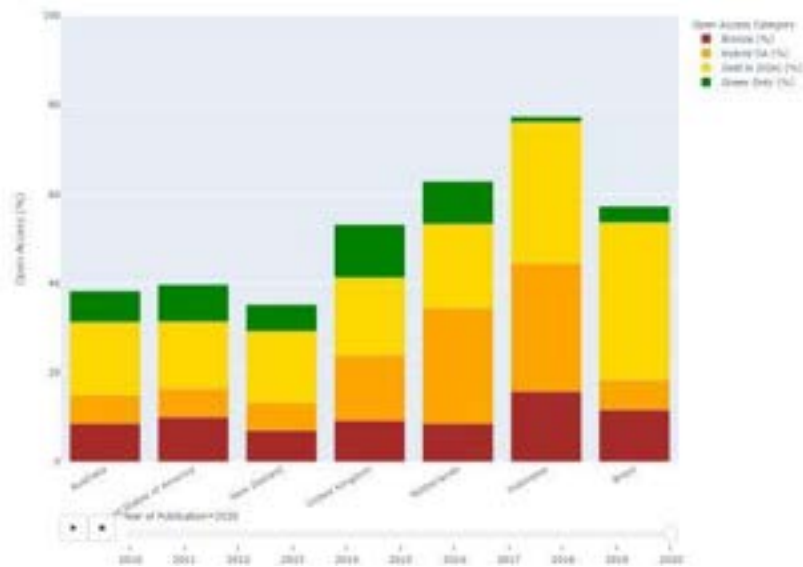
https://storage.googleapis.com/oaspa_talk_files/oa_bar_comparison.html

Future directions

- National policy
- Significant of monographs in the ecosystem
- Value and evaluation
- National benefit from open access

Thank you

Thomas Guignard
Going through all these books
https://www.flickr.com/photos/timtom/1396032444/

19

Discussion Session 1

Prof. Mayling Oey-Gardiner

✓ As a member of the Indonesian Academy of Sciences (AIPI) and becomes the Chair (since 2018) of the Social Science Commission (AIPKIS). Up to now, she continues to do the research work as well as writing various social and humanities issues, including gender issues, inequality in general and special issues of welfare, and equality access to education

✓ Mayling Oey-Gardiner is a lecturer at the Faculty of Economics & Business, University of Indonesia, where she has worked since 1971 until now, and became the first female Professor in 2001, since she returned after earning a Ph.D. in Demography (1982)

Emeritus professor of the Faculty of Economics and Business, Universitas Indonesia

Ph.D. at Canberra, Australia 1982; MA at College of William and Mary, Virginia 1970 and at Harvard Unv, Massachusetts 1974

Actively researching and writing various social & humanities issues, gender issues, injustice in general and specifically in the field of welfare and access to education

How Indonesian Scholars Join the Race

Abstract

In an underdeveloped market for knowledge and innovations, scholarship is still in its infancy.

This paper sets out the conditions and the consequent recent strategies adopted by Indonesian scholars to participate in the race for a place in the international community of scientists. While one can likely identify numerous reasons for this delay, this study shall focus on only the following arguments: (1) The underlying principle in human resources policy has not changed since Independence, of education being the source of filling the bureaucracy with the necessary skills. (The skills demanded are not static but are instead very dynamic, in line with political and technological demands of the time). (2) The staff, consisting of teaching and administrative staff in public education institutions are part of the civil service, and thus are subject to the basic rules of promotion into positions of the organization structure, further modified to meet the needs of academia: teaching. (3) Even though promotion among faculty demands contribution to the *Tridharma Perguruan Tinggi* (Three Pillars of Higher Education comprising Education, Research and Community Service), it is only more recently that requirements for Research as indicated by publications have strengthened. At a time when international big publishers have and continue to change their business model as expressed in the rules of access and publication, Indonesia has decided to join the international community of scholars. This paper closes with strategies on how Indonesian scholars cope with the pressures.

How Indonesian Scholars Join the Race

Prepared by Mayling Oey -Gardiner
for the **Webinar on DIGITAL SCHOLARLY COMMUNICATION,**

Jointly Organized by the **AASSA – AIPI International** *Association of Academies and Societies of Sciences in Asia (AASSA) and the* **Indonesian Academy of Sciences (AIPI),**
Supported by the *Inter-Academy Partnership (IAP)*
Jakarta, 31 March 2021

Education for scholarship is new in Indonesia

- The underlying principle in **human resources policy of Independent Indonesia during the last century did not change significantly. The purpose of Higher Education is the preparation of staffing the bureaucracy with competent skills to execute the nation's development objectives.**

- This was to be achieved by faculty members tasked mainly with teaching skills and knowledge in preparation for the labor market, including the government bureaucracy. Except for aspirant professors others were not strongly required to conduct and proof of research output.

- It was only **after the turn of the century when research and scholarship gained prominence in the nation's development objectives which includes membership in the global community of scholars** Faculty members had to become scholars and scientists, conduct research which is to be published and submitted when applying for promotion.

- **As a latecomer, Indonesian scholars** can not join the race on the same terms as seasoned western scholars. And thus they **have to enter with alternative strategies and option.**

The Indonesian Education System
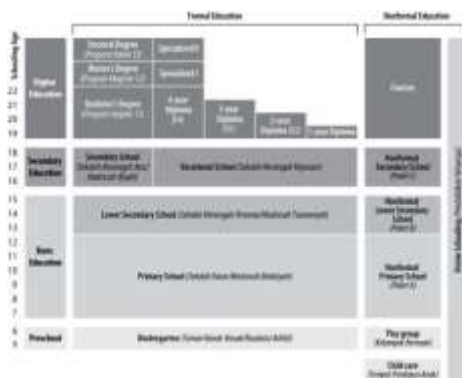
- **There are 2 systems: Secular under the MOEC and Religious under the MORA; and then there are Public and Private Schools, with the higher the level the more Private**

- **The formal school system** is a bottom up system **consisting of 6-3-3 years for Primary, Lower Secondary and Upper Secondary school** where the formal age at entrance is 7 years and the next level is dependent on having passed final exams of the lower level.

- The system starts with 9 years of Basic Education, consisting of 6 years Primary School (SD/MI) and 3 years Lower Secondary School/LSS (SMP/MT). This is followed by Upper Secondary Schooling where students choose between an academic (SMA/MA) or vocational stream (SMK).

- Whereas **undergraduate students continue straight after graduation from USS**, post graduate education is more likely funded by work - place scholarships, either the government or universities fulfilling requirements of at least one level higher than the student they teach. **Advanced degrees are obtained at a later age in life.**

6/10/2021   3

Growth of education beneficiaries

Education Composition of the Indonesian Population 15+

No School ■ PS ■ JHS ■ SHS ■ Tertiary
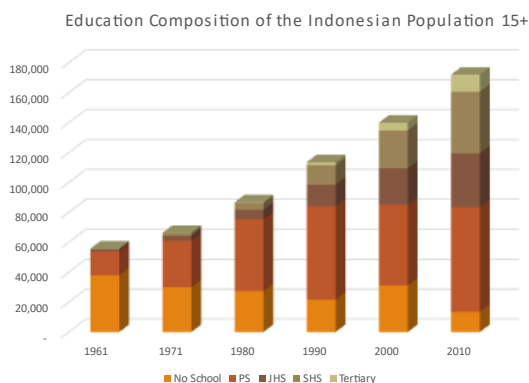
- Whereas **the population 15+ grew more than 3 fold (3.08) from 55.7 to 172.1 million, the educated practically exploded in half a century between 1961- 2010**
  - The share of those with no or some primary schooling declined from 68% to 8%
  - On the other hand, the higher the level, the faster the growth
  - Primary school graduates grew from 16 to 70 million, currently constituting about 2/5
  - JHS and SHS graduates grew at 6.5% and 9.5% per annum
  - The fastest growth is recorded for **Tertiary graduates at 10.9% per year, from only 56 thousand in 1961 to 11,4 million in 2010.**

6/10/2021   4

Searching for a place in academia

Tertiary Gross Enrolment Ratios for ASEAN Countries

Country	Ratio
Brunei	31
Cambodia	15
Indonesia	36
Laos PDR	14
Malaysia	43
Myanmar (Burma)	19
Philippines	35
Singapore	89
Thailand	49
Vietnam	29

Source: World Bank Data Base. These data are for latest available years between 2016-2019
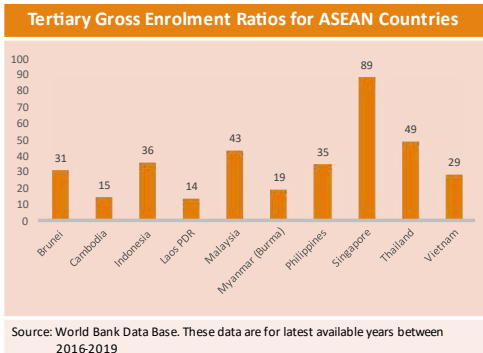
- The World average Gross Tertiary Enrolment Ratio was 38.8 percent.
- **Tertiary education is generally not yet highly valued among ASEAN communities**
- Singapore, as an island state, with no hinterland has obviously invested more heavily than other ASEAN countries in its human resources with 89 percent attending tertiary schooling.
- **Indonesia is a newcomer, with slightly more than 1/3 of its college age population attending school.**

The value of Education

- **The value of education is endless:**
  - In essence **for further development**
  - **Education is also a great equalizer**
  - The purpose of schooling is for a better life thru better jobs
- In 2000 under the MDG the world declared to achieve universal Primary Education by 2015
  - Primary School Gross Enrolment Ratios rose from 84% in 1970 to 110% in 2000 and to 106% by 2015
  - Regrettably these successes were no preparation for future qualitative objectives.
- From MDG to SDG. **On 1 January 2016 world leaders introduced the 17 SDG.**
  - **The 4th goal aims at Quality Education. Regrettably, Indonesia has as yet to find a means to realize that goal.** Thus far PISA results continue to be disappointing
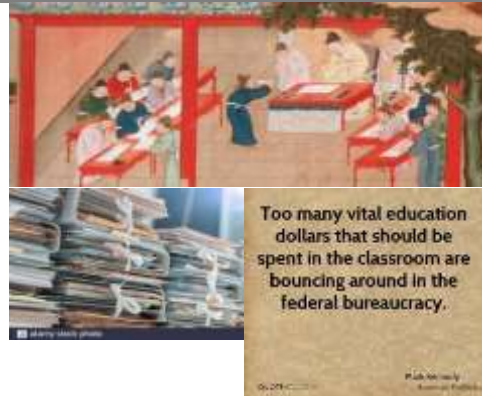

MDGS

SDGS

Pisa Scores for 2018

Subject	Score	Ranking	No. Countries
Reading	371	71	76
Mathematics	379	70	77
Science	396	69	77

Higher Education for the bureaucracy
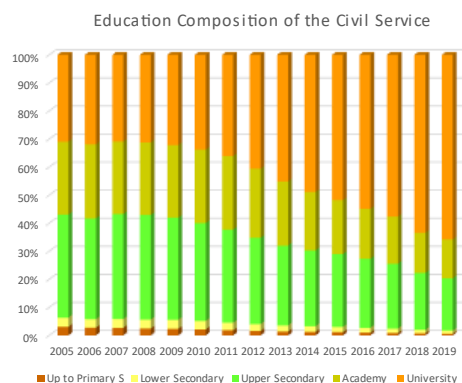
- **Weber** (Parsons 1947 and Bendix 1960) **remains relevant until today in Indonesia.**
  - **Education makes the position legitimate,**
  - **Assumes rational decision making**

- Like the mandarins being the bureaucrats, the paper pushers

- Financial resources for scholarships are with government bureaucracy, at the central and local levels.

- **Universities have little or no resources for scholarships and research**

Too many vital education dollars that should be spent in the classroom are bouncing around in the federal bureaucracy.

Demand for advanced education by the bureaucracy

Education Composition of the Civil Service

Up to Primary S Lower Secondary Upper Secondary Academy University

- As noted earlier, **university graduates are the fastest growing education group in the civil service**, a requirement for a public sector functional position

- **The share of university graduates** among civil servants **rose from 31% in 2005 to 66% in 2019**

- The bureaucracy is said to improve professional competence through
  - Making available scholarships
  - Sending staff to graduate school
  - HE Institutions are responding

The purpose of higher education in academia

- Developments of scholarship beyond undergraduate education
    - **Teaching - as the requirement is to hold a degree at least one level higher than the students.** To teach undergraduates requires a minimum of a S2 or equivalent of Masters degree, and to teach in a S2 program requires a S3 or doctorate degree(Law No. 14 of 2005 on Teachers and Lecturers)
    - Post graduate education was initially mostly obtained overseas but later also available domestically,
        - The purpose of which is to teach the next generation
        - **To teach professional bureaucrats: the higher the level, often also the higher the education requirements**
    - **Consequently – Advanced graduate education was not to develop Indonesian scholarship**

Increasingly Research has become a must for promotion of faculty members
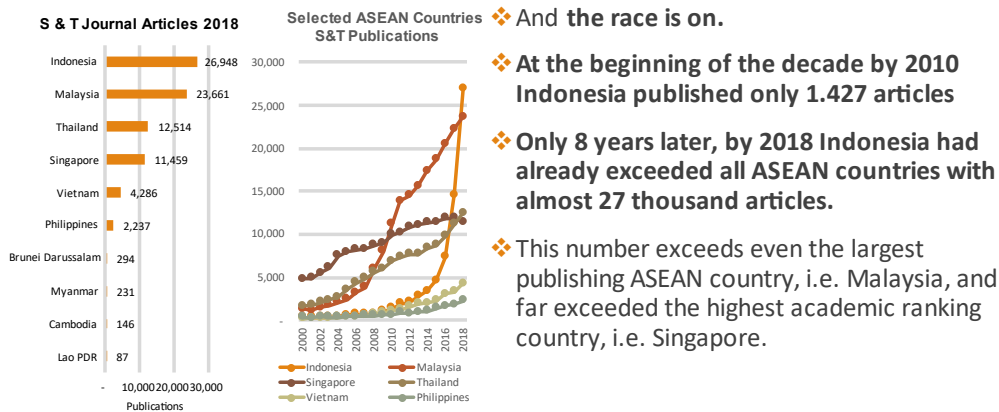
- For a very long time, the faculty was only required to teach, at a level beyond secondary school. Low salaries, less than living wages, were compensated through multi-tasking, taking side -jobs and thus no time for research.

- **Since 2005, with the issue of Law No. 14 on Teachers and Lecturers (** *dosen***) promotion to professor requires the candidate to fulfil the demands of** *Tridharma Perguruan Tinggi* **(Three Pillars of Higher Education comprising Education, Research and Community Service). These requirements were made attractive through salary supplements, rising substantially with rank.**

- Since then the pressure on the faculty to publish continues to strengthen. Interestingly, according to the MOEC Decree No. 3 of 2020, **the requirement states only one article in an accredited national journal** or **reputable** (not defined) **international journal**.

- **Today the emphasis is on professor candidates who are required to have at least one article published in a Scopus Indexed journal as first and/or corresponding author.**

Publications of S&T journal articles in ASEAN

S & T Journal Articles 2018

Country	Articles
Indonesia	26,948
Malaysia	23,661
Thailand	12,514
Singapore	11,459
Vietnam	4,286
Philippines	2,237
Brunei Darussalam	294
Myanmar	231
Cambodia	146
Lao PDR	87

Selected ASEAN Countries S&T Publications

- ❖ And **the race is on.**
- ❖ **At the beginning of the decade by 2010 Indonesia published only 1.427 articles**
- ❖ **Only 8 years later, by 2018 Indonesia had already exceeded all ASEAN countries with almost 27 thousand articles.**
- ❖ This number exceeds even the largest publishing ASEAN country, i.e. Malaysia, and far exceeded the highest academic ranking country, i.e. Singapore.

Publication is the indicator for research

- ▪ **The number of publications is very important to Indonesian scholars** as Research achievements are measured in terms of numbers, the more the better. Consequently that is also the goal for lecturers seeking promotion.
- ▪ **And thus the search for potential publication of one's work.**
    - ▪ **As novice in a well developed world and market of academic publications, the majority of faculty members can be characterized as ignorant of rules and regulations and market dynamics.**
    - ▪ **In their confusion** it is not surprising **many are trapped in the variety of publication options.**

Ignorance is not always bliss

- It is not surprising that the complexity and variety of potential publications is confusing to a novice and likely ignored.

- Besides, most **Indonesians aspiring to publish are early on made aware of the difficulty to get published in top Scopus Indexed journals. In some fields the waiting time can last years**

- **Some end up relying on predatory publishers which collect fees without delivering the expected services, especially the process of peer reviews.**

- However as noted earlier, the pressures to advance in one's career often results in contradictory outcomes. Regrettably is has been found that Indonesia ranked 2nd only after Kazakstan with 17% of articles listed in Scopus 2015 2017 were published in predatory journals (Macha'cek and Srholec 2021), which do not advantage authors
  - Authors have to pay a fee for little or no service in regard to proper peer review
  - Low readership of such journals and thus also low or no citation, an indicator of quality
  - And worse such articles are rejected when proposed as contributing points required for promotion.

- **And thus a warning 'Indonesia should stop pushing its academics to chase empty indicators'** (Sabarini 2021).

It is not all gloom and doom:

- **Indonesia's philosophy: Knowledge is NOT FOR SALE but TO BE SHARED**

- **And thus all of Indonesian accredited academic journals are Open Access, mainly of the Gold Open Access type**
  - **Indonesia leads the world in OA publications with 1,717 OA articles, followed by UK with 1,655 and Brazil 1,544 articles** (Irawan DE et al. 2020).
  - Indonesia is creating an alternative Open Research Ecosystem: Free to publish and Free to access and further disseminate (idem).
  - It has been made possible because Indonesia adopted and applied non profit principles in regards to knowledge, as knowledge is to be shared (idem).
  - A study in 2017 found Indonesia published the highest proportion of OA articles at 81% compared to only 60% by UK authors (Van Noorden 2019)

Alternative publication media: Books

- **There are 2 types of books accommodating academic articles for publications**
    - **Books and Book chapters** - Narrow topic, not many authors can join
    - **Conference Proceedings** - Usually the topic is far more general with a great variety of subtopics, often to accommodate as many participants as possible
- **These publications are indexed and therefore likely to be read and cited, and authors can get known.**
- The rules on OA Conference Proceedings are similar to journals. To provide universal access it is the author, or the organizing institution which has to pay publication costs, including for instance APC as it is known in the trade, for Article Processing Costs.

Conference Proceedings

- **Indonesia's experiences** in organizing Conference Proceedings for publication:
    - Timing: not very long ago — latter part of the last decade
    - **This strategy has been adopted by a large number of institutions**
    - **Indonesia reached the top well beyond other countries in ASEAN in numbers and share of articles arising from Conference Proceeding** (Purnell n.d. and 2020).
- **The reason(s) for publishing Conference Proceedings are obvious.**
    - **Publication time is much shortened,** not the years before one's article will be published in a Scopus Indexed journal.
    - It is **the institution which is in control of publication date and number of articles that can be published**, and thus the institutions provides incentives for the purpose.
    - **In the process, Indonesian institutions are also** gaining experience in organizing and managing international conferences, thereby **raising their standing in the community** .

Conclusion

- **For most of Independent Indonesia, public higher education policies emphasized teaching** with the goal of producing graduates with skills to run the bureaucracy, in the nation's development process
- **But this century is different** . As Indonesia is seeking a place in the globalizing world of advanced economies, **Faculty members are strongly advised to conduct research and publish to gain promotion with rising incentives.**
- But under pressure and in ignorance many researchers end up publishing in predatory journals, which are not recognized in the system.
- So they turn to alternatives.
  - **All Indonesian scientific journals are Open Access of the Gold type with free publication, free access and free dissemination under a widely held belief that knowledge is to be shared**
  - **Indonesia has published the largest number of Open Access articles**
  - **Indonesia is also the first on the list of Conference Proceeding publications**
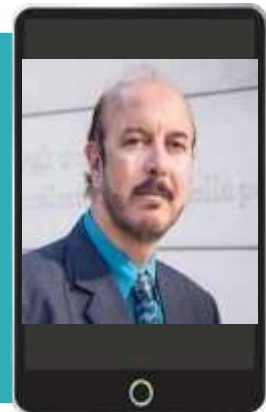
Thank you for your attention

Mayling Oey-Gardiner
Jakarta, 31 March 2021

Discussion Session 1

Prof. Zabta Khan Shinwari

- Dr. Shinwari interest is Molecular Systematics & Medicinal plants, Bioethics; Biotechnology and Sustainable Development. Dr. Zabta K. Shinwari reported genes for drought, cold, and stress tolerance.
- His publications: 9 books authored; 8 international proceedings edited; 455 articles in impact factor journals His research work has been cited more than 12250; H index 55, i10-index 250; has mentored more than 100 M.Phil & PhD students; Patents 3.
- Research Presented/Invited Lectures Delivered (301 including national and International). Member, National/International Scientific Bodies (65); Grants/Funds Secured (60)
- Shinwari has developed linkages with various national and international agencies like UNESCO; Japan; BEP, USA; LNCV (Italy); UNICRI; Chinese Academy of Sciences, ANSO (China) and Bradford University etc. to promote sustainable development using Open

Professor Emeritus of the Quaid-i-Azam University, Islamabad in 2020.

Ph.D. from Kyoto University, Japan

Actively promoting Biosecurity to economic improvement growing biotechnology industry, international ethical & safety standards, improving the country's economic standing

Activities on Open Science through UNESCO

Zabta K. Shinwari

Prof. Emeritus, Quaid-i-Azam University, Islamabad-Pakistan.

By encouraging science to be more connected to societal needs and by promoting equal opportunities for all (scientists, innovators, policy-makers and citizens), Open Science can be a true game-changer in fulfilling the **human right to science** and **bridging the science, technology and innovation gaps** between and within countries. Open Science is a global movement aiming to make science more accessible, democratic, transparent and beneficial for all. There are various definitions of open Science, e.g. According to NASEM, 2018: "Open science aims to ensure the free availability and usability of scholarly publications, the data that result from scholarly research, and the methodologies, including code or algorithms, that were used to generate those data.". It comprises principles (transparency, reuse, cooperation, accountability, reproducibility, sharing, etc.) and practices (open publications, transparency in research methods, open educational resources, etc.). Hence, the research process provides opportunities for assessing and improving the reliability and efficacy of scientific research, you may call it 'democratization of knowledge'.

The working group on UNESCO had several sessions and thoroughly debated various aspects of open science including but not limited to:

a) *The actors of open science include*; Policy makers, funders, researchers and technology developers, engineers, academia, innovators, from private and public sectors.

b) **Challenges for open science and how to overcome them – inc. dual use**

Linkages between knowledge systems, the 'hard core science' and citizen science are critical for ensuring that 'no one is left behind' and are steering the science we want for the future we want. To ensure Inclusive Participation; Equitable Collaboration and Promote Cognitive justice would also be a challenge. We have to ensure that open science is based on the ethical values of honesty, fairness, objectivity, openness, trustworthiness, and respect. The issues of Dual Use research concerns *with ethical implications* have to be addressed avoiding Questionable research practices *(e.g. virus, genome editing).*

Major challenges beside successful implementation of the strategy developed could be *Funding and resources and Cost reduction dialogue with publishing industry to enable Open Access.*

Other Risks and challenges are *Unconscious biases*; *Human resistance to change*; *lower quality (predatory journals); New suitable and consensual research evaluation metrics; Disparity of science levels and capacities at the regional and global level Purpose.* Ethical obligation to compensate (Intellectual property rights (IPR) and regulatory barriers); Human rights and fundamental freedoms, vs the right to data protection. How to maximize pleasure and minimize pain by using frontier technologies like Artificial Intelligence (AI), and big data etc. Cyber security is another issue to be addressed avoiding dual use of Research, whilst we all rely more than ever on computer systems, mobile devices and the Internet. Malicious actors are exploiting these vulnerabilities to their own advantage. Keeping an eye on Counterfeit products especially medical products.

c.   **Incentives for open science**

Science plays a critical role in containing global threats and ensuring our preparedness for the future. Open Science helps Policy and decision-makers to make evidence-based decisions. When informed about scientific facts, citizens act more responsibly and are able to debunk misinformation. Open Science strengthens the relation between science and society. Open Science can play a significant role to ensure equity among researchers of developed and developing countries. Inclusiveness will require focus on regions, areas and social groups afflicted by low access to Education and Science, which are basic human rights.

Other incentives include Open educational resources to accelerate innovation and creativity. *Public-private partnership (CSR).* Open science platform should enable documentation and utilization of indigenous and local knowledge for scientific advancement and addressing regional problems. This is expected to enhance local based innovation.

Recommendations:

Emanating from the Organization's supreme governing body, recommendations are intended to influence the development of national laws and practices. The working group drafted several recommendations including: International and regional science bodies to take leadership to mobilize science for disaster risk reduction partnerships in for all stakeholders by reducing the knowledge gap, sharing values and promoting the spirit of 'open science; Develop the delivery and trialing of innovation and science-based solutions to emerging global and regional challenges, drawing on the particular strengths and qualities of each partner or stake holder; Develop policies to avoid Scientific misconduct – fabrication, falsification, or plagiarism (FFP); regulatory framework for equitable pricing; tools for monitoring and Finding new funding ways/mechanism to incentify Open Science.

Activities on open Science PAS, AASSA & UNESCO

Zabta K. Shinwari
AASSA, PAS, QAU, COMEST IslamabadPakistan

Definitions of open Science

- There are various definitions of open Science, e.g. According to NASEM, 2018: "Open science aims to ensure the free availability and usability of scholarly publications, the data that result from scholarly research, and the methodologies, including code or algorithms, that were used to generate those data."

- It comprises principles (transparency, reuse, cooperation, accountability, reproducibility, sharing etc.) and

- Practices (open publications, transparency in research methods, open educational resources, etc.).
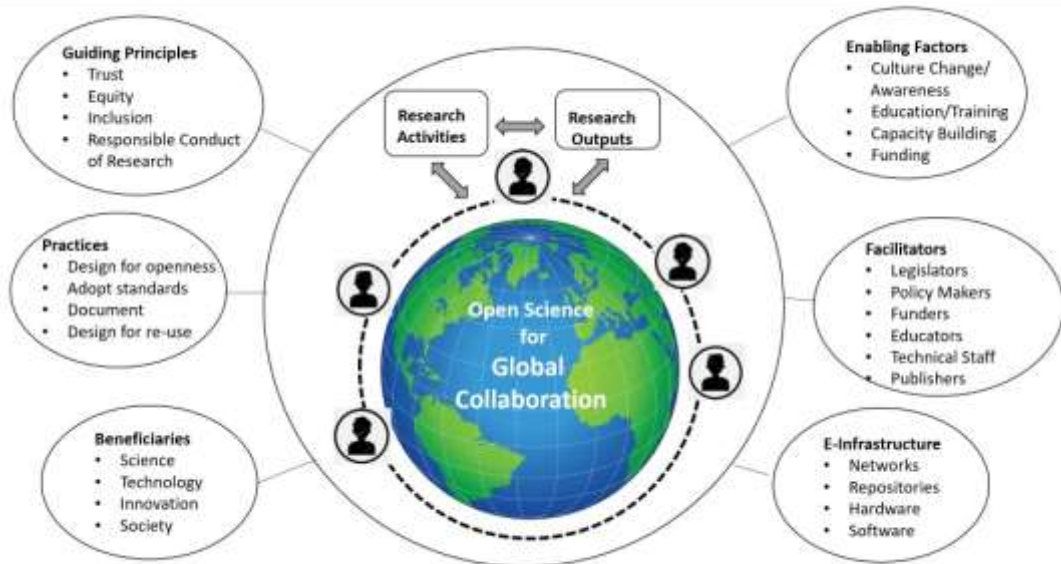
Ownership

Recognize that the science we do is not entirely our property. Whether the taxpayer helps fund our scientific education or not, most of our training and research is paid for by the public – in grants from the research councils or charities.

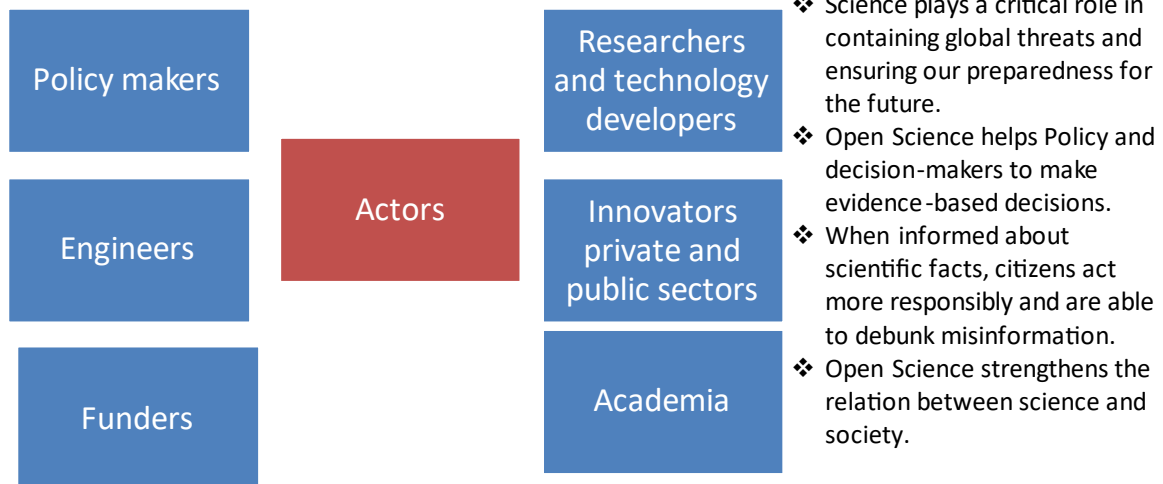**The public has a major stake in the ownership of what we do.**

Meanings of Openness

- Free of cost barriers
- Free of permission barriers
- Free to share and re-use
- **Rights to Research, meaning the rights to participate in knowledge production and meaning making**
  - Inclusive Participation (beyond expertise)
  - Equitable Collaboration
  - Promote Cognitive justice

Practice	Principles	Policy
Open Access		Inclusion
	Knowledge as a Public Good	Innovation
Open Science — Open Data	**Rights to Research for Social Justice**	Funding
	Knowing Differently	Infrastructure
Doing Science Openly & Collaboratively		Intellectual Property
		Incentive

Lea Shaver, The Right to Science and Culture. WISC. L. REV. 121 (2010)

Overarching Framework: Governance and Sustainability ?

The actors of open science

Policy makers		Researchers and technology developers
Engineers	Actors	Innovators private and public sectors
Funders		Academia

❖ Science plays a critical role in containing global threats and ensuring our preparedness for the future.

❖ Open Science helps Policy and decision-makers to make evidence-based decisions.

❖ When informed about scientific facts, citizens act more responsibly and are able to debunk misinformation.

❖ Open Science strengthens the relation between science and society.

Risks and challenges:

Risks and challenges:

- Unconscious biases
- Human resistance to change
- Risk of lower quality (predatory journals)
- Purpose, dual use with ethical implications (e.g. virus, genome editing)
- New suitable and consensual research evaluation metrics
- funding and resources
- Disparity of science levels and capacities at the regional and global level (Inclusive Participation & Equitable Collaboration)
- Promote Cognitive justice
- *Cost reduction dialogue with publishing industry*
- How to maximize pleasure and minimize pain by using frontier technologies like Artificial Intelligence (AI), and big data etc.

    ✓Cyber security is another issue to be addressed avoiding dual use of Research, whilst we all rely more than ever on computer systems, mobile devices and the Internet.

    ✓Malicious actors are exploiting these vulnerabilities to their own advantage. Keeping an eye on Counterfeit products especially medical products

Open Science Claims

Claims for open access are mostly underpinned with

- science–related arguments (open access accelerates scientific communication);
- financial arguments (open access relieves the serials crisis);
- social arguments (open access reduces the digital divide);
- democracy–related arguments (open access facilitates participation); and,
- socio–political arguments (open access levels disparities).

Herb, U. (2010). Sociological implications of scientific publishing: open access, science, society, democracy and the digital divide

Inclusive Society and Sustainable Development

"a people-centred, inclusive and development -oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and people to achieve their full potential in promoting their sustainable development and improving their quality of life …."

An excerpt from Outcome document of two phases (Geneva, 2003, Tunis, 2005) of **UN World Summit on the Information Society**

Open Access is a key enabler of **Open Science,** which in turn will lead to a more **Open Society**

Opportunities

Opportunities:
- Open education resources (win-win situation)
- Public-private partnership (CSR)
- Inclusive knowledge e.g. indigenous and local knowledge in citizen science
- Role of researchers diasporas

Needs for capacity building/ enhancement
- Data science (including network, computer science) related skills development,
- Raising awareness for scientists to change their cultural norms and attitudes
- Training teachers of STEM education (primary and secondary level) to use open science in the classroom
- Training on use and general public awareness of open science through citizen science
- Champion for policy development for open science

Science with and for Society

➤ The **EU 'Science with and for Society'** programme aimed at '**building capacities and developing innovative ways of connecting science to society'**.

➤ It allows all societal actors (researchers, citizens, policy makers, business etc.) to work together during the whole research and innovation process in order to better align both the process and its outcomes with the values, needs and expectations of European society. This approach to research and innovation is called **Responsible Research and Innovation (RRI).**

RRI objectives:

✓ **engage society more broadly in its research and innovation activities,**
✓ **increase access to scientific results**
✓ ensure gender equality, in both the research process and research content,
✓ take into account the ethical dimension, and
✓ promote formal and informal science education.

https://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society

Democratizing Research

➢ Over the coming years, citizens will be playing an expanded role in scientific research and will contribute more actively to defining the research agenda

➢ What democratization means, in science is

- creating institutions and practices that fully incorporate principles of accessibility, transparency, and accountability

- considering the societal outcomes of research at least as attentively as the scientific and technological outputs

- insisting that in addition to being rigorous, science be popular, relevant, and participatory

Guston, David H. "Forget Politicizing Science. Let's Democratize Science!" *Issues in Science and Technology* 21, no. 1 (Fall 2004).

nature International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video | Fo

Archive › Volume 526 › Issue 7571 › Column: World View › Article

NATURE | COLUMN: WORLD VIEW

Science must prepare for impact

To maintain public support, researchers need to be able to adapt to the rapidly changing needs of society and politicians, warns Guy Poppy.

30 September 2015

📄 PDF | 🔍 Rights & Permissions

What do scientists do for society? Some researchers may resent the increasing calls for them to demonstrate 'impact', but my time seconded to the UK Food Standards Agency as chief scientific adviser has convinced me that such pressure will only increase. Policymakers are no longer willing to hand over billions of pounds of taxpayers' money to scientists in exchange for a vague promise that something good will come from it.

IMPACT OF SCIENCE

Publish-or-perish: Peer review and the corruption of science

- ➢ Pressure on scientists to publish has led to a situation where any paper, however bad, can now be printed in a journal that claims to be peer-reviewed
- ➢ An estimated 1.3 million papers in 23,750 journals in 2006
- ➢ There simply aren't enough competent people to do the job. The overwhelming effect of the huge (and unpaid) effort that is put into reviewing papers is to maintain a status hierarchy of journals.
- ➢ US National Library of Medicine indexes 39 journals that deal with alternative medicine. They are all "peer-reviewed", but rarely publish anything worth reading.

Source: http:// www.guardian.co.uk/science/2011/sep/05/publish-perish-peer-review-science

Monday 5 Sep. 2011

Open access Journals

- • The number of open-access journals has risen steadily, in part because of funders' views that papers based on publicly funded research should be free for anyone to read.
- • By 2011, 11% of the world's articles were being published in fully open-access journals.
- • A paper that costs US$5,000 for an author to publish in *Cell Reports*, for example, might cost just $1,350 to publish in *PLoS ONE* — whereas *PeerJ* offers to publish an unlimited number of papers per author for a one-time fee of $299.
- • Science-publishing industry generated $9.4 billion in revenue in 2011 and published around 1.8 million English-language articles — an average revenue per article of roughly $5,000 (profit margins at 20–30%) .

THE VALUE OF REJECTION

- *PLoS ONE* (which charges authors $1,350) publishes 70% of submitted articles, whereas *Physical Review Letters* (a hybrid journal that has an optional open-access charge of $2,700) publishes fewer than 35%; *Nature* published just 8% in 2011.
- Corruption: Directly related to the **global internet, access is an avalanche of so-called "*degree mills*"**—thousands of them, located in all regions. There is a Wikipedia page that lists house pets that have earned degrees.
- Crime in **academia has overtaken even the legendary bribery of our police departments** or the easy corruption of income tax authorities. But dealing with academic heist, now organized and systematized, won't be easy.

Pay to Play Publishing

- **Pay Money and Publish what ever you want !!!**

Nature, 534, 326 (16 June 2016)

The Disaster of the Impact Factor

At the time of its inception in 1955 (Garfield 1955), the inventor of the impact factor did not imagine that 1 day his tool would become a controversial and abusive measure, as he confessed 44 years later (Garfield 1999).

➤ The impact factor became a major detrimental factor of quality, **creating huge pressures on authors, editors, stakeholders and funders**. More tragically, in some countries the number of publications in journals with ''high impact factors'' condition the allocation of government funding for entire institutions (Plos Medicine Editorial 2006). Based on the assumption that IF reflects scientific quality, the impact factor produces a widespread impression of prestige and reputation, though no experimental data support this hypothesis (Brembs et al. 2013).

Sci Eng Ethics 2014

A special issue explores the study of inequality, and how socio-economic divides affect the science workforce

Science and inequality

- In every society some citizens find their talents being sacrificed to poverty, prejudice, poor schooling and lack of opportunity.
- On the subject of inequality, it seems, science still has a lot of work to do

8 March 2019 - 206 EX/9
Preliminary study of the technical, financial and legal aspects on the desirability of a UNESCO recommendation on Open Science

Background

- UNESCO *Strategy on Open Access to scientific information and research* (2011)
  36th session General Conference

- UNESCO *Recommendation on Science and Scientific researchers* (2017)
  39th session General Conference

- Preliminary study of the technical, financial and legal aspects on the desirability of a UNESCO recommendation on Open Science

UNESCO Open Science Movement

Open Science Taxonomy
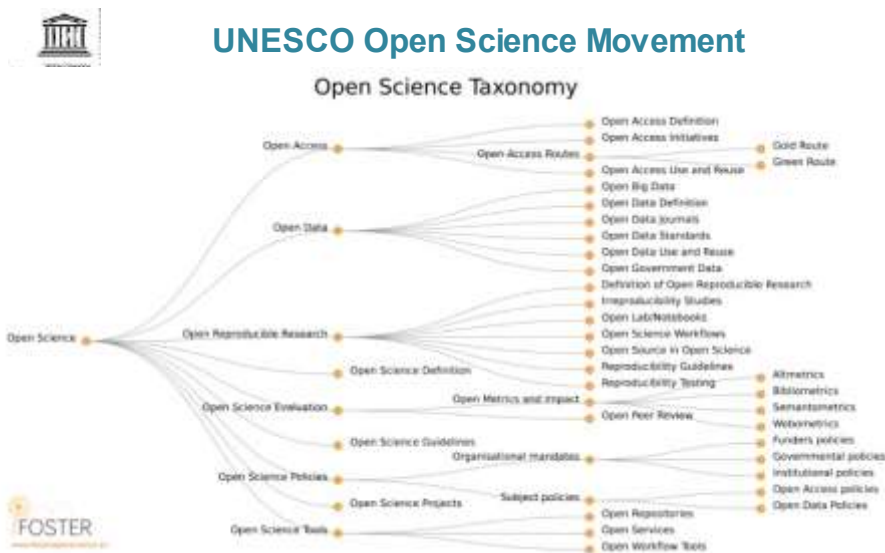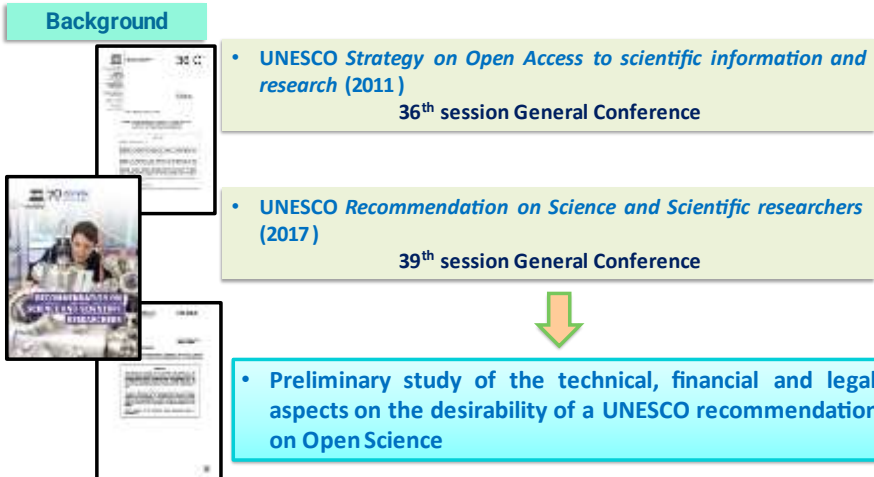
Recommendations:

Recommendations:

- Establish policy and legal frameworks (esp. Publicly funded research e.g. Japan Open science policy)
- Establish a regulatory framework enabling equitable pricing for publication and access
- Develop new research evaluation metric (Altmetric; Develop narrative and descriptive evaluation methods of research)
- Develop effective tools for continuous monitoring of open science
- (cultural change) Inter-disciplinarity in reporting, openness of science
- Finding new funding ways/mechanism to incentify OS
- International and regional science bodies to take leadership to mobilize science for disaster risk reduction partnerships in for all stakeholders by reducing the knowledge gap, sharing values and promoting the spirit of 'open science;
- Develop policies to avoid Scientific misconduct– fabrication, falsification, or plagiarism (FFP);

Why open access can offer different possibilities for societies example of Covid variants

- **Priorities to address new SARS-CoV-2 variants**
  • Continue to suppress and push to eliminate SARS-CoV-2 while rolling out COVID-19 vaccines
  • Improve surveillance of SARS-CoV-2 variants through global sequencing and sharing of variant-specific PCR primers
  • Create a central repository of samples of sera and cells from individuals with past infection or past immunization with available COVID-19 vaccines for seroneutralisation and cellular immunity functional testing against newly discovered variants
  • Produce COVID-19 vaccines reactively and adapt them to newly emerging lineages
  • Ensure global access, availability, and affordability of COVID-19 vaccines to ensure no countries are left behind

If we all work together as a team.. Then we will achieve our goals

Thanks our national & international partners

" QUESTION AND ANSWER
Session 1

14.20 - 14.45

Discussion of Session 1

Question:

Academic activities, such as publishing academic journals and peer review journals, while there are so many types of publications, what would be your take on this? Prof. Zabta mentioned this concern about publishers being commercial and more money tree oriented, in this era of digital age, anybody can just publish anything. But as we know, there is also the need for peer review about quality and legitimacy.

Zabta K. Shinwari:

The publishers are not the only stakeholders. The system needs promotion etc., so that they need quality authentication and prefectures. The other one is about commercial products, etc. Open access does not need only publication, it needs the processes, also data, patterns and others that if we really mean by openness of the society.

About the citation and ethics about the question, I would say, yes it is. You cite me, I cite you, in fact journals as a whole, the companies, they have those agreements with each other of citing the journal, and this way both will get higher prefecture. This is the dilemma that scientists and stakeholders have to work together.

Dewi F. Anwar:

Invite Mayling O. Gardiner to address on the minister's presentation, the Indonesian ecosystem, do you really feel that this is

already enabling improvement in terms of quality and quantity of publications in Indonesia?

Mayling O. Gardiner:

We are just starting although we have got several centuries ahead, and we are following the Western world, just follow what has already in there. We must rethink of where Indonesia wants to go, which directions. We agree with Prof. Zabta that we must find other means. "Knowledge is not for sale" is taken seriously, because the big publishers are basically oligopoly. They may say "But we have to pay for all the services", but they also make very big profits with that. The rest then is just left behind and very difficult to enter oligopoly.

Maybe what should come out of this is, we do have to rethink where to go and also use experiences with all the new media. It's time to reconsider, is knowledge really only one way to maintain the publication and citation hold on to that? Or, maybe there are different competing interests and competing needs also, as the world is expanding with technology.

Somebody asked about Shinta (system developed by the Ministry of Research & Technology). Dependence on publishers makes them in many ways to control us by making us pay that basically all the fees that are controlling it. Should knowledge really always be marketable? Is that what knowledge is about? Right now another indicator is basically salable. We should reconsider that; it should be shared. The value of it is also in the sharing of it. But is that the right way for the future? That is worth discussing with others.

Roxanne Missingham:

This is the time where we need to challenge the system, to challenge the big publishers. It is not impossible and it is in fact beneficial to think nationally about what can be invested in publishing process that is owned by the academics. So the whole process is owned by our academic community. We can find a way to get an investment, to create a number of university that assist academics, to create an environment for scholarly communication, that gets the best possible outcome for the nation from the investment, and makes that information available to all in Indonesia and the world by breaking the module. This is the time to do some breaking.

Dewi F. Anwar:

I would like to play the devil's advocate here. In terms of scholarly world, when it is really oriented towards academic expertise, catering to the masses are not usually the direction. So it is not just how many citations, but also where you are going to be published, a lot of prestige attached to that. Is it totally irrelevant in this digital age? There is a real equalizer, the equity means everybody is really equal, and there is no rank anymore in terms of where you are published, who you are published with?

Roxanne Missingham:

We may need a diversity of measures, not just one but a range of different measures. UN sustainable development is very good for us to think in terms of some research will have practical impact, so it might improve the hill system, it might improve agriculture. Then, there are some researches that are genuinely improving our intellectual understanding of issues, so that we can have further research. It worries me

when we do come down to just normalized citation impact or some single measure, as we need to pressure for diversity. From my perspective, one of those measures should be how much is openly accessible because that has both the opportunity for the testing and ensuring academic integrity and the opportunity for communication of research to the world as well as our community. So it is added some more measures too.

Mayling O. Gardiner:

Agreed with Prof. Roxanne, because it is not a digital divide, it is really rich versus poor. The poor cannot afford due to the waiting time and the fees that are being charged. As the oligopolist, use a different business module wherever they can get the greatest financial benefits. From journal, subscription, to the level of the article and then it goes separately with others. So how can scientists from less developed countries join? I think it will be very difficult. Especially when we, like Indonesians, have just started it a few years ago.

Zabta K. Shinwari:

When we demand for equity, one thing is for example in Indonesia, language. When you submit something, you have to not only pay to publish it, you have to pay to have English language correction, etc. so it is a double cost.

Number two, the fee and waiting time. When you have a name of a new scientist, the reviewer or other people sometimes is not a blind review, so they have doubts about you. If your address is from a less developed country, that deprives you from approaching the international, high quality journal.

Three, you usually work with a local problem, not an international problem, and they are not encouraged. Your local policy makers want you to publish international journals, high quality journals, although your data is local and it should have been published locally.

Finally, science with society. There was a study, how scientists spend their time., and their time for society and media was almost zero; the rest was writing, research, etc. So what I request is the policy maker has to intervene and do something, so that benefiting research to society.

Question to Mayling O. Gardiner:

About the value of conference proceedings, which is not as highly rated compared to published journals. What is your comment on that?

Mayling O. Gardiner:

The benefits of conference proceedings were explained by one of the organizers at the University of Indonesia, where I teach. We are in a transition from no publications to trying to get published, do research and then published, it is still a learning process. Conference proceedings, you are in a big crowd and you feel the camaraderie. That is really helpful to push someone a little further. But it is a first step for a lot of people, a transition period.

These conference proceedings are not just by any publishers, usually we try to publish it through one of the big publishers, so we often we deal with Springer in Asia. Our university deals with Springer a lot because they are available. When they saw the budget rising for research, all the oligopolies came to Indonesia, selling their publications. And then they say, oh no you

can't publish here, it will take you time, and all that. So that the conference proceedings become one avenue and the articles are not all that bad. Some have already improved and can be published, because it is still selective articles. We allocate the money for that as a venue, make Indonesia becomes the highest producer of conference proceeding articles.

Question to Roxanne Missingham:

What is the average compliance rate amongst scholars in Australia, who are asked to use repositories?

What is the author's hope with open access? Open access need policy to operate, and in fact, in your country, I would like to know about the benefits of open access.

Roxanne Missingham:

In terms of how many we have in repositories, we do not get anything yet. But I think part of the opportunity for us is to continue to communicate with authors about the material they publish and try to get their material published into our repositories, to work with funders, to have funders rigorously ensuring that their conditions for open access emit. We start seeing some of that in Australia which is very beneficial. We also work with publishers, either as fully open access publishers or with many of really high quality publishers around who are committed to finding new ways to open access, and are even funding themselves for open access. The more we encourage the diversity so the open access is born, the better we will be. We are not there yet in systems but there is a great room for national experimentation.

Dewi F. Anwar:

In your presentation, you mentioned the impact of open access on traditional publishers. Is it going to be the death of traditional printing publishers?

Roxanne Missingham:

There is a high value in the work that publishers do in terms of editing, checking, handling of peer reviews, supporting the work in an industry that were being done by scholars for a very long time. But the question is, what is the payment for it? We have been challenged substantially in our conversations, and many libraries are now paying for what we call "publish licenses". In Australia, our association of university libraries has negotiated 7 of these licenses. This means the university through the library pays the subscription which covers the cost of all article or book processing fees, as well as the normal subscription fees. In most cases, there is only a small increase in the subscription. So that openly accessible from an institutional payment within the regular payment of the university, which is really important for us to explore these innovative approaches.

Webinar "Regional Patterns of Digital Scholarly Communication and Publication "

"

Discussion
Session 2

"

14.45 - 15.50

Discussion Session 2

CP2   **Prof. Anjana Singh – Nepal Academy of Sciences and Technology**
Chair Person for Discussion Session 2

04   **Prof. Abdullah Shams Bin Tariq – Inter Academy Partnership (IAP)**
"Predatory Practices in Academic Publishing and References: Definition, Extend, Impact, Root Causes and Interventions."

05   **Prof. Manoj Patairiya – Advisor, Science & Engineering Research Council, Department Science & Technology, Goverment of India**
"Scholary Publications in Digital Environment: Emerging Policies and Concern in India."

06   **Prof. Anne Booth**
"Open Access Publishing in Indonesia"

Discussion Session 2

Prof. Anjana Singh

✔ **Prof. Andjana Singh interest on research in: Water microbiology, Immunology and Infectious Diseases, Plant health field.**

✔ **Total national and international publications -126; Peer reviewed journals-59, Books-3, Book chapters-25, General and Proceedings Publications -29, Abstract Published -9, Accepted articles on pipeline-11.**

✔ **From 1999 until now, she has supervised Masters' Thesis Supervised -103, PhD guidance as supervisor-1, co-guide-3 completed and 5 ongoing.**

✔ **she has received various Honors and awards, among others Fulbright Scholarship -United States Government, Education Award (Shikshya Puraskar), Nepal, International Foundation for Science Grant, Sweden**

✔ **She is very actively involved in various scientific organizations among other Women in Science and Technology, Nepal, NAS senate member, NAST Management Committee Board Member, Organization for Women in Science in Developing World (OWSD) member, Coordinator of Women Scientists Forum Nepal (WSFN), NAST**
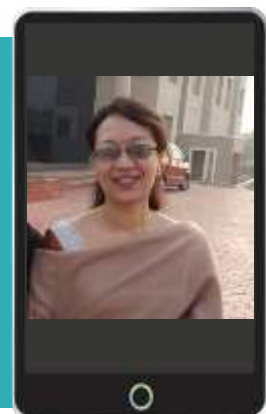
📖 **Professor in Microbiology of Tribhuvan University, Kathmandu, Nepal**

✏ **Ph.D. Jawaharlal Nehru University, New-Delhi, India** in 2004; M. Sc. Tribhuvan University, Kathmandu Nepal.

✖ **Academician, Nepal Academy of Science & Technology (NAST), Nepal; Executive member of Special committee of AASSA, Women in Science and Engineering WISE**

Discussion Session 2

Prof. Abdullah Shams Bin Tariq

- Bin Tariq is an Associate Fellow of the Bangladesh Academy of Sciences (BAS), one of the founders and a current member of the National Young Academy of Bangladesh, and alumnus of the Global Young Academy (GYA), where he also led the Working Group on Global Access to Research Software and served two -terms on the GYA Executive Committee.
- He has also been a Junior Associate of the Abdus Salam ICTP, Trieste, Italy, and a member of the first international advisory board for AuthorAid.
- He has won the Razzak-Shamsun Physics Research Award in 2003 (Best research by a Bangladeshi physicist in a year), and the TWAS Young Scientist Award Bangladesh in 2010 - Physical Sciences: Junior Category.
- He is also serving as Deputy Director, Center for Excellence in Teaching and Learning (CETL) at his university.
- He is also an Open Access (OA) enthusiast, with concerns in particular on how the author pays model of OA implementation has triggered the rise in predatory publishing.

Professor of Physics at the University of Rajshahi, Bangladesh

PhD from the University of Southampton as a Commonwealth Scholar

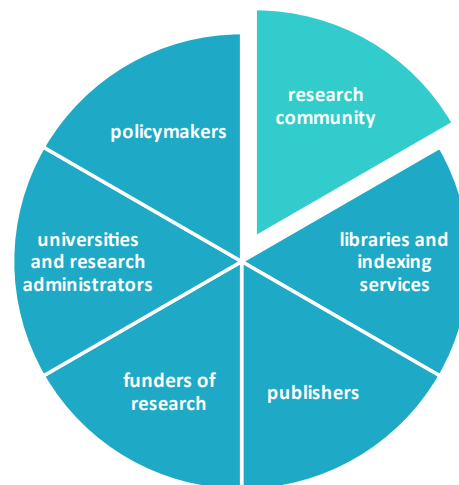Bin Tariq is one of the two Co - Chairs of the IAP Working Group on Combatting Predatory Academic Journals and Conferences

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Abdullah Shams Bin Tariq[1]

The digitisation of scholarly communication has undoubtedly revolutionised many aspects of our scientific endeavour. However, it has not been without its drawbacks. While, it has opened up avenues for us, in the global south, to participate more significantly in the access, dissemination and creation of knowledge, shifting paradigms of assessment, rankings, metrics, and business models have allowed predatory practices to take root.

The IAP has formed an international working group for a global study intending to assess the definition, extent and impact, root causes and interventions, with a particular view on the role of learned academies in combatting these practices. The work is still in progress. Some preliminary glimpses are presented of the feedback from a major global survey, dialogues with relevant stakeholders, as well as the group's own desk research and deliberations.

[1] Co-Chair, IAP Project on Combatting Predatory Academic Journals and Conferences
Professor, Department of Physics, University of Rajshahi, Bangladesh
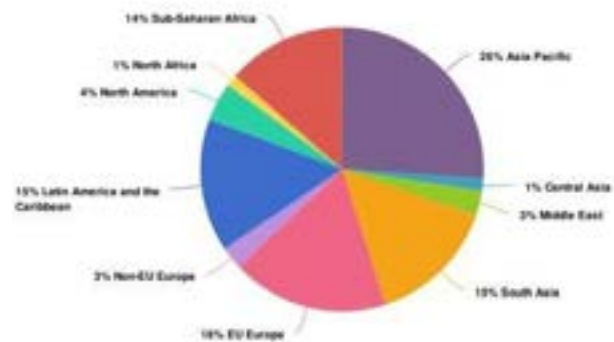Associate Fellow, Bangladesh Academy of Sciences

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Abdullah Shams Bin Tariq

Co-Chair
IAP Working Group on
Combatting Predatory Academic Journals and Conferences
Department of Physics, University of Rajshahi, Bangladesh
and The Bangladesh Academy of Sciences

AASSA-AIPI Webinar Series on Digital Scholarly Communication
31 March 2021

The InterAcademy Partnership (IAP)

A global partnership of over 140 national and regional merit-based academies of science, engineering and medicine

Strategic Priorities

❑ **Build the capacity of, and empower,** regional networks of academies and their national members;

❑ **Provide independent, authoritative advice** on global, regional and national issues;

❑ **Communicate** the importance of science, engineering and medicine in terms of research, education, literacy, public discourse, and outreach

The Study

Combatting Predatory Academic Journals and Conferences

GORDON AND BETTY
MOORE
FOUNDATION

National academies plan assault on predatory journals

Academies to target predatory journals

Study objectives

- ❑ **Define predatory and unethical practices** in academic journals and conferences
- ❑ **Gauge** their **extent and impact**
- ❑ **Understand** their **root causes**
- ❑ **Examine efforts to -date** to combat predatory journals, publishers and conferences around the world
- ❑ **Provide concrete recommendations** for addressing the problem

Working Group

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Literature review

Predatory journals: no definition, no defence

Alarming Data: Cancerous Growth in Predatory Publishing!

Stop this waste of people, animals and money

India strikes back against predatory journals

Illegitimate journals scam even senior scientists

Predatory conferences 'now outnumber official scholarly events'

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Resources already available

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Landmark survey for researchers

Survey Sample – Geographic Region

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Main research questions

What…

- are the typical signs of predatory practices?
- challenges and barriers to addressing them?
- professional and personal impacts of using them?
- consequences of predatory practices?

How….

- prevalent are predatory journals and conferences?
- do researchers use predatory journals and conferences?
- have they been combatted to date?
- might they be combatted in future?

Why….

- do researchers use predatory journals and conferences?
- might a global consensus be needed?

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

The survey

- ❑ **Asia** is the **most prominent continent**, representing **45% of respondents**.

- ❑ Over **80% of respondents** in Asia-Pacific, Central Asia, and South Asia **think predatory practices are a problem in their region** (as did respondents in LAC and sub-Saharan Africa); the highest perception (or concern) being in South Asia at 92%. The number is >70% everywhere.

- ❑ **70-85% of respondents at every academic stage** believe that **predatory practices** are either **a serious problem or on the rise**, so this concern is **not just confined to ECRs**.

- ❑ **Country income status appears to be the main delineator**, rather than disciplines or career stage or gender etc.

- ❑ **Lack of awareness and understanding** of predatory journals and conferences appears to be the primary reason for researchers falling prey to them.

- ❑ Survey results will be shared very soon!

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

The Theme of Today

Regional Patterns of Digital Scholarly Communications and Publications

❏ **Scholarly Communications and Publications**

❏ **Digital Era and its Effects**

❏ **Regional Patterns**

❏ Focusing on the issue of **Predatory Academic Journals and Conferences**

Scholarly Communications and Publications

❏ Two major avenues: **Academic Journals** and **Conferences**

❏ It is important to stress on **Communications** – because we are losing the focus on communication being the primary goal of journals and conferences

❏ Publications and conference attendance are now probably more often used for **Assessment** in **career progression and rankings** – this is one of the major distorting effects

Digital Era and its Effects

- Revolutionised **production** and **access**
- No doubt we have **benefitted immensely**

But at the same time …

- Brought **publishing within the reach of clandestine operations** – both in terms of **technology** and **cost**
- Made data easily available – resulting in the **proliferation of metrics and rankings** that have **taken over assessment**
- On the other hand, also created extremely **powerful commercial entities** with **firm control over academic publishing**
- All of these have contributed to the **proliferation of predatory publishing**

Regional Patterns

- South-East Asia is **very close to two suggested hot-spots of Predatory Publishing** – India and China
    - more information may be available once we complete our survey analysis
    - increasing ambitions for global competitiveness in science and technology in this region has led to many efforts and incentives, to boost the research output; some of these have been lost in predatory practices
- **It itself is perhaps one of the biggest hot-spots of Predatory Conferences**
    - with **tourism interests** supporting proliferation and
    - fulfilling the needs created by **graduation / project completion criteria**
- We will present **survey findings from the region** in detail in our **dissemination phase** and would look to **AASSA as a partner** in these efforts

Our approach

□ **Definition / Classification**

– a binary classification (predatory/non-predatory) leaves out many **slipping standards and unethical practices** that are increasingly corrupting even the reputed operators, and also **risks putting weaker, poorer-quality but ethically sound ones to be bracketed as predatory**

– focus on predatory practices

– spectrum approach

□ **Extent and Impact**

– desk research, survey, data collection

– attempt to look at demographics: e.g. does the extent vary with geography, economic status, career stage, gender, discipline etc.?

Our approach

□ **Root Causes**

– **Research assessment and evaluation**: publish or perish, quantity vs quality

– The **commercialisation of the research enterprise**

– Lack of open, transparent or high-quality **peer review**

– [Author-pays model of Open Access]

□ **Interventions**

– review of existing efforts

– recommendations based on the identified root causes, tailored for key stakeholders

A few preliminary conclusions

❑ Predatory journals and conferences are **on the rise** and becoming **increasingly sophisticated**.

❑ They are permeating many geographies, disciplines and career stages – **no-one can afford to be complacent**.

❑ (Post) pandemic working practices may further exacerbate predatory practices.

❑ Distinguishing between predatory, poor quality and unethical publishing practices is difficult – a **spectrum approach** is more appropriate

❑ **Raising awareness and understanding** of predatory journals and conferences appears to be the primary intervention to prevent researchers falling prey to them

❑ The **commercial interests of the publishing industry** are perceived to be the main challenge.

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

A few preliminary conclusions

❑ To eliminate root causes, we need to go further and work together globally to

– **revise conditions for recruitment and career progression**

– **regain ownership** and control **over academic publishing** (may be some kind of global governance structure)

– promote **alternative economic models of (open access) publishing**

e.g. that in **Latin America**, where academic publishing is fully not for profit

or that in **high energy physics**, where literally everything is OA as preprints on **arxiv** and the journals are also open access through **SCOAP3**

– make **open peer review** the norm – so that sloppy or non-existent peer review is difficult

The recent **ISC report** on the **Future of Scientific Publishing** addresses some of these

Predatory Practices in Academic Publishing and Conferences: Definition, Extent, Impact, Root Causes and Interventions

Outlook

By the end of 2021, will produce a report with targeted recommendations for the

- ❑ academic community,
- ❑ university administrators,
- ❑ publishing community,
- ❑ research funders, and
- ❑ higher education policymakers
- ❑ libraries and indexing services

The project will have a strong outreach component focused on raising awareness of the problem and suggesting steps that individuals can take (e.g., graduate students and their advisors) into 2022

You can follow the project at
www.interacademies.org/project/predatorypublishing

For enquiries, please contact
secretariat@iapartnership.org

iap@twas.org

Follow IAP on Twitter @iapartnership

www.interacademies. org

Prof. Manoj Patairiya

✔ Patairiya is Adviser/ Scientist 'G' Science & Engineering Research Council (SERC) Department of Science & Technology (DST) Ministry of Science & Technology, Govt. of India

✔ He is a well accomplished science communication researcher and practitioner of international repute. Prof. Patairiya is trained in multidisciplinary areas of biosciences, science communication and journalism, science policy and management with unique blend of experience in research and innovation, governance and administration, working with national and international organizations, committed to nation building with vision and mission.

✔ Honoured by contemporary Presidents of India for outstanding achievements in science and communication.

✔ He has 35 years of experience in the field media, science promotion, research, academics, policy, information, working with government, non-government, university, industry,

Professor who acts as an advisor/Scientist 'G' for Ministry of Science & Technology, Govt. of India	Ph.D. in Botany, Garhwal University, Uttarakhand; M.Sc. (Tech.), S&T Communication, Lucknow University.	Science communication researcher and practitioner of international repute

Scholarly Publications in Digital Environment:

Emerging Policies and Concerns in India

Prof. Dr. Manoj Kumar Patairiya

Adviser
Science & Engineering Research Council
Dept. of Science & Technology
Ministry of Science & Technology, Govt. of India
Technology Bhavan, New Mehrauli Road, New Delhi-110016
Phone: +91-9868114548; 9971489785
manojpatairiya@yahoo.com; mkp@nic.in

Abstract

The issues of monopoly and self-styled negotiation practices of different international publishers are loudly coming to the fore. Many countries are now considering more economical and democratic approaches to overcome the problem of capital-intensive publication and access of research literature. The proposed Plan S by Science Europe seems to be a way forward in the direction of independent, democratic and economical access of research information for the benefit of scholars, launched on 4 September 2018 with a view of open access publishing in science, an initiative of cOAlition S, a consortium of major research institutions and funding agencies of 12 European countries. The scientists and researchers engaged in public funded research are required to publish their works in open repositories or journals under the Plan S to be available by 2021. The plan is based on 10 key principles: i) Authors should retain copyright on their publications, which must be published under an open license such as Creative Commons; ii) Members of the coalition should establish robust criteria and requirements for compliant open access journals and platforms; iii) They should also provide incentives for the creation of compliant open access journals and platforms if they do not yet exist; iv) Publication fee should be covered by the funders or universities, not individual researchers; v) Such publication fee should be standardized and capped; vi) Universities, research organizations, and libraries should align their policies and strategies; vii) For books and monographs, the timeline may be extended beyond 2021; viii) Open archives and repositories are acknowledged for their importance; ix) Hybrid open access journals are not compliant with the key principle; and x) Members of the coalition should monitor and sanction non-compliance. However, publication of research findings in any journal will be possible with the condition that an accepted copy of the manuscript or final published paper be deposited in an approved open access repository with open access and creative commons licence! The Indian Science Technology & Innovation Policy 2020 draft proposes a combined 'one nation one subscription' policy for the entire nation to promote hassle free access to international research journals online for all.

OBSERVATIONS

Open Access (OA) is a mechanism through which research findings are disseminated online free of cost without any other restrictions on use and reuse of these resources. The focus of the open access has been the peer reviewed research literature. The OA has been centred primarily on printed academic journals. Subsequently, OA has been extended to all forms of published research findings, including peer reviewed and non-peer reviewed papers, articles, conference papers, theses, book chapters, and monographs, etc. Different practices are prevalent; some journals cover publishing costs through access fee, such as subscriptions, site licenses or viewing charges, etc., whereas, some charge publishing fee and make the journal open access. Many of them charge all fees, including publication fee and access fee, as well as sell the printed copy of the journal; some state-run journals on the other had do not charge publication or access fee, but collect subscription for printed copies.

Creative Commons (CC) is yet another phrase often used in academic or creative spheres nowadays. CC is a non-profit American organization for expanding the sphere of various creatives so that these works are freely available for others. Several copyright licenses, known as Creative Commons licenses were released free of charge for all. Anyone can use any creatives available under CC, but one has to share his or her work under CC, created using others' works available under CC. All kind of creatives come under CC, i.e. research paper, article, artwork, cartoon, publications, data, audio-visual, digital copy, and technical reports, etc.

Open Educational Resources (OER) are immensely useful especially in today's context of online and open education scenario. OER are freely accessible, openly licensed texts, media and other digital forms useful in teaching, learning, review and research. OER Commons is also a dynamic and interconnected digital library and its network accessible to different users. The menace of predatory and fake journals has been the hot topic of recent discussions. The researchers are under pressure for publications to score higher for different purposes and tend to fall prey of such journals that claim to publish their works in fast-track manner or even overnight on huge expenses! Recent reports in media revealed number of such syndicates operate in many areas making undue profit!

Consortium for Academic Research and Ethics (CARE) of the India's University Grants Commission is a welcome initiative of the government to bring consolidated lists of quality journals in India keeping the substandard and unethical publications away.

The plan S is based on 10 key principles: i) Authors should retain copyright on their publications, which must be published under an open license such as Creative Commons; ii) Members of the coalition should establish robust criteria and requirements for compliant open access journals and platforms; iii) They should also provide incentives for the creation of compliant open access journals and platforms if they do not yet exist; iv) Publication fee should be covered by the funders or universities, not individual researchers; v) Such publication fee should be standardized and capped; vi) Universities, research organizations, and libraries should align their policies and strategies; vii) For books and monographs, the timeline may be extended beyond 2021; viii) Open archives and repositories are acknowledged for their importance; ix) Hybrid open access journals are not compliant with the key principle; and x) Members of the coalition should monitor and sanction non-compliance. However, publication of research findings in any journal will be possible with the condition that an accepted copy of the manuscript or final published paper be deposited in an approved open access repository with open access and creative commons licence! The Plan S also shows the way to speedy submission and access

of research outcomes minimizing scope for malpractices and undue expenses in research publishing and access.
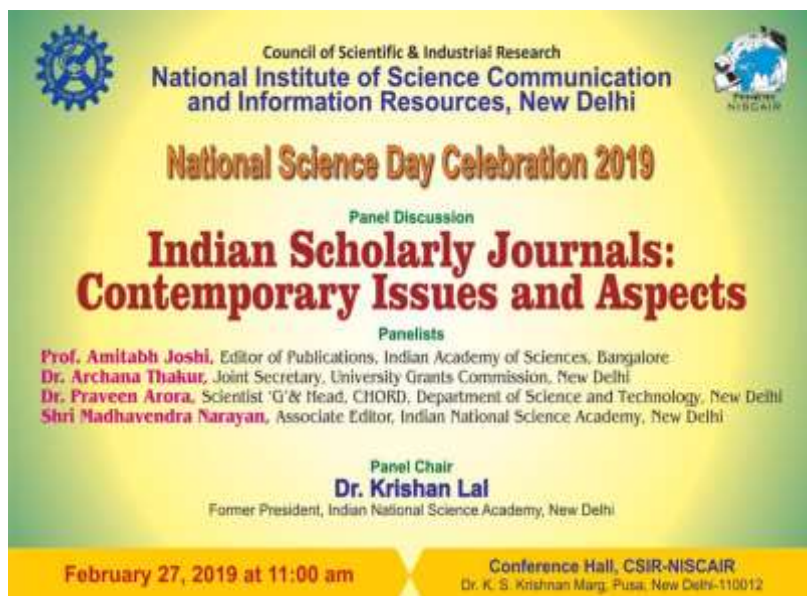
CSIR-Wide Consortium Access to Online Information Resource (NKRC) is a CSIR-XII Five Year Plan Project under the Information Science Cluster (ISC0402) being implemented by CSIR-NISCAIR. With a budget outlay of Rs. 96.16 crore, the project has been facilitating access to thousands of international journals and some important databases to the CSIR laboratories. As per the project guidelines Nodal Officers' Meets are organized from time to time for better implementation of the project wherein some 100 experts join. The objective of 2 days' meets is to review the information resource access in CSIR and DST labs and also discuss the information provisioning, resource sharing and R&D information access framework in laboratories. Further, the DST aided institutions have also joined the consortium (with additional DST budget). UGC, DBT, MOES and others have separate consortiums for information provisioning, resource sharing and R&D information access framework in their labs.

CSIR-NISCAIR has been the ISSN National Centre in India since 1986 and has assigned 23459 ISSNs between 1986 to 2018, of which 37% are online. More ISSNs were assigned after 2010, that reflects a renewed emphasis by publishers to obtain ISSNs for not only new serials but also for old ones as well. International Standard Serial Number (ISSN) is a worldwide identification code used by publishers, suppliers, libraries, information services, bar coding systems, and union catalogues, etc., for citation and retrieval of serials such as journals, newspapers, newsletters, directories, yearbooks, annual reports, and monographs, etc. The benefits of having ISSN included international publicity and recognition of serials by automatic inclusion in the International Serials' Directory Database. The Indian ISSN Centre at the National Science Library, NISCAIR, New Delhi is one of the centres spread over 89 nationas worldwide. It is responsible for assigning ISSNs to serials published in India. The Centre is also responsible for contributing Indian records to the world database of ISSN numbers, known as the ISSN Register, maintained by the ISSN International Centre in Paris. Since 1986,National Institute of Science Communication and information Resources (NISCAIR) has been designated as the ISSN National Centre in India for assigning ISSNs to serial publications published in India. The ISSN assigned periodicals are registered in the international database in Paris. Information about ISSN assigned serials such as year of publication, language, address and contact details of publisher, subject area, etc., are useful to anyone looking for new titles on a subject.

NISCAIR Online Periodicals Repository (NOPR) offers instant free access to all 20 journals: nopr.niscair.res.in and NISCAIR App. Centre for Science & Media Relations at National Science Library, CSIR-NISCAIR offers journalists and writers to access 100s of journals, books and other reference books print and online for writing media reports and articles.

INFLIBNET - Information and Library Network Centre, Gandhinagar is an autonomous Inter-University Centre (IUC) of the University Grants Commission of India. It is a major National Programme initiated by UGC in March 1991. The Centre is involved in modernizing university libraries in India and connecting them, as well as information centres in the country and connecting through a nationwide high-speed data network using state-of-the-art technologies for the optimum utilization of information. The Governing Council in its recent meeting accorded approvals to setting up a Knowledge Gallery/ Museum.

DISCUSSION AND ANALYSIS

The keenness to know how to use information, retrieve data, and access research literature as a means to carryout advanced research in a variety of areas in science, technology and innovation is increasing. It is important to build clear understanding on the open access as a platform for research advancement especially at a time when the states are pouring in millions of their currencies to procure online access of international research journals for their scientists and scholars! However, there are instances where several organizations across the world have raised concerns over such practices and advocating for open access and finding more sustainable alternatives.

However, a number of publishers of non-open access journals have raised concerns over the Plan. Springer Nature: "urge research funding agencies to align rather than act in small groups in ways that are incompatible with each other and for policymakers to also take this global view into account". AAAS, publisher of Science, argued that Plan S "will not support high quality peer review, research publication and dissemination". Tom Reller, Elsevier said, "if you think that information should be free of charge, go to Wikipedia". 1500 researchers signed an open letter expressing concerns over anticipated outcomes of the Plan; a set of 1900 researchers signed another open letter to support Plan S in December 2018. Australia, Jordan, USA, Zambia and 12 European countries have joined the Plan. K. Vijay Raghavan, Principal Scientific Adviser to the Government of India announced on 12 January 2019 that India is joining Plan S. Though, some research repositories are already in place, the Plan S is all set to change the way research literature is published and accessed the world over.

Publishing in scholarly peer-reviewed journals causes long delays from submission to its subsequent publication. This may be due to the long peer-review process or backlog of manuscripts waiting in line in the journals. The present study examines the publication delay in 13 journals published by CSIR-NISCAIR at three different stages. These were delays between receipt of manuscript and its revision, editorial delay, revision and its subsequent publication, i.e. technical delay, and the total delay. The study examined 1223 articles published in these 13 journals in the year 2015, except for 1 journal for which data for 2104 have been used. The analysis indicates that the publication delay varied from one discipline to another and from one journal to another. The highest time delay was found to be for the Indian Journal of Chemical Technology, and lowest for the Indian Journal of Chemistry – A. The total publication delay varied between 5.2 and 22.4 months. In most of the journals, the reason for delay was technical (Garg, K.C., 2016).

CONCLUSIONS AND RECOMMENDATIONS

- Challenges of predatory and fake journals to be addressed by different mechanisms in place.
- Heavy publication and retrieval charges to be minimized.
- Translational research and viable innovation and development to be encouraged.
- The issues of monopoly and self-styled negotiation practices of international publishers are to be tackled.
- Many countries are considering economical and democratic approaches to overcome the problem of capital-intensive publication and access; some may join hands.
- What a contrast, our journals to follow Open Access Policy and subscription goes down; whereas we have to pay huge amount to access foreign journals. There has to be a balance.
- Commercial service providers devalue research production; role of middleman may be avoided
- The author would like to suggest: *"Maintaining (periodical updating) the lists of standard journals by the AASSA Member national academies (administered by expert committee/s) or by a centralized agency with shared access to all scholars, keeping predatory and substandard journals away to safeguard scholars from falling prey of predatory and substandard journals."*
- Scholarly peer-reviewed journals face delay from submission to publication due to long peer-review or backlog; a study of 13 journals revealed delay of 5.2 to 22.4 months, needs more efforts to maintain standard acceptance and publication schedules.
- Academies and Societies' linkages for joint publications keeping private publishers away must be encouraged.
- Indigenous journals be promoted by scientists by submitting their papers.
- The Indian Science Technology & Innovation Policy 2020 draft proposes a combined 'one nation one subscription' policy for the entire nation to promote hassle free access to international research journals online for all Indians and thereby democratizing scientific knowledge to all.
- Regional Frameworks can be considered for open research repositories and maintaining authentic lists of quality journals.

Research Journals

References

1. Crok, Marcel (2005). Science popes and conflict of interests. Natuurwetenschap & Techniek, February.
2. Cutter, Ann Grier (1999). Journalists: Must They Remain Neutral in Conflict? United Nations Chronicle, XXXVI, 2.
3. Garg, K.C, Publication delay of manuscripts in periodicals published by CSIR-NISCAIR, *Current Science*, 111(12), 25 December 2016.
4. Patairiya, M.K., Open scientific and academic resources: Emerging policies and concerns, *Indian Journal of Science Communication*, 18 (1), January – June 2019.
5. Patairiya, Manoj K. (2007). Challenges and Prospects of Science Communication in South Asia. *Indian Journal of Science Communication*, 6, 1, 9-16.
6. Patairiya, Manoj K., Science Journalism in India, JourNet International Conference on Professional Education for the Media, Newcastle, Australia, 16-20 February 2004.
7. Patairiya, Manoj K. & Dutta, A. (ed.), (2009), Science Meets Communication, NCSTC & KKHSOU.
8. Patairiya, Manoj K. & Nogueira, M.I. (ed.), (2011), Sharing Science, NCSTC & University of Sao Paulo.

Scholarly publications in digital environment: Emerging concerns and policies in India

Welcome to
the
Presentation

Prof. Dr. Manoj Kumar Patairiya
Adviser
Science & Engineering Research Council
Department of Science & Technology, Govt. of India, New Delhi

Indian scholarly publications

- ❑ CSIR-NISCAIR has been the ISSN National Centre in India since 1986.
- ❑ 22,383 ISSNs were assigned so far; 37% online
- ❑ India published 1,35,000 scientific papers; has become world's third largest research publisher

Online Access to research information

- National Knowledge Resource Consortium (NKRC) offers online access to CSIR labs
- Facilitating access to thousands international journals and important databases
- Dept of Science & Technology also joined the consortium
- UGC, DBT, MOES and others have separate consortiums for information provisioning, resource sharing and R&D information access framework in their labs
- Information and Library Network (INFLIBNET) Centre is involved in modernizing university libraries and connecting them through nationwide high -speed data network for optimum utilization of information
- NISCAIR Online Periodicals Repository (NOPR) offers instant free access to all 20 journals: nopr.niscair.res.in and NISCAIR App

Issues and concerns

- The issues of monopoly and self -styled negotiation practices of international publishers
- Many countries are considering economical and democratic approaches to overcome the problem of capital-intensive publication and access
- What a contrast, our journals to follow Open Access Policy and subscription goes down; whereas we have to pay huge amount to access foreign journals
- Commercial service providers devalue research production; role of middleman may be avoided
- Challenges of predatory and fake journals
- Heavy publication and retrieval charges
- Lacking translational research or viable development

Plan S

- The proposed Plan S by Science Europe a way forward for independent, democratic, economical access of research information
- Launched on 04 September 2018 for open access publishing in science
- An initiative of cOAlition S, a consortium of major research and funding agencies of 12 European countries
- Scientists and researchers in public funded research are required to publish their work in centralized open repositories or journals under Plan S to be available by 2021

10 Key principles

- Authors to retain copyright on their publications, which must be published under an open license such as Creative Commons
- Coalition to establish robust criteria compliant open access journals and platforms
- They must provide incentives for creation of compliant open access journals and platforms if they do not yet exist
- Publication fee should be covered by the funders
- Publication fee be standardized and capped
- Universities, research organizations, libraries to align their policies and strategies
- For books and monographs, the timeline be extended beyond 2021
- Open archives and repositories be acknowledged for their importance
- Hybrid open access journals are not compliant with the key principle
- Members of coalition should monitor and sanction non -compliance

Opinions matter

- Springer Nature "urge research funding agencies to align rather than act in small groups with each other and for policymakers to also take this global view into account"
- AAAS, publisher of *Science*, argues "Plan will not support high quality peer review research publication and dissemination"
- Tom Reller, Elsevier said "if you think that information should be free of charge, go to Wikipedia"
- 1500 researchers signed an open letter expressing concerns over anticipated outcomes of Plan S
- 1900 other researchers signed another open letter to support Plan S
- Australia, Jordan, USA, Zambia and 12 European countries have joined the Plan.
- Principal Scientific Adviser to Govt of India announced India joining Plan S
- Some repositories are already in place, the Plan S is all set to change the way research literature is published and accessed

Understanding accessibility patterns

- OA: Open Access is a mechanism through which research findings are disseminated online free of cost without restrictions, focusing peer reviewed research literature, later it is extended to all forms, peer reviewed, non-peer reviewed, papers, articles, conference papers, theses, chapters, monographs, etc.
- CC: Creative Commons is a non-profit organization for expanding sphere of creatives so that these works are freely available
- OER: Open Educational Resources are useful in online and open education, freely accessible OER Commons is a dynamic digital resource

The way forward

- Scholarly peer-reviewed journals face delay from submission to publication due to long peer-review or backlog; a study of 13 journals revealed delay of 5.2 to 22.4 months, needs care
- Academies and Societies' linkages for joint publications keeping private publishers away
- Indigenous journals be promoted by scientists with papers
- CARE: Consortium for Academic Research & Ethics is an initiative of govt to bring authentic lists of quality journals keeping substandard and unethical publications away
- STI Policy:The Indian Science Technology & Innovation Policy 2020 Draft proposes 'one nation one subscription' policy
- Regional Frameworks can be considered for open research repositories and maintaining authentic lists of quality journals

Council of Scientific & Industrial Research
National Institute of Science Communication and Information Resources, New Delhi

National Science Day Celebration 2019

Panel Discussion

Indian Scholarly Journals: Contemporary Issues and Aspects

Panelists

Prof. Amitabh Joshi, Editor of Publications, Indian Academy of Sciences, Bangalore
Dr. Archana Thakur, Joint Secretary, University Grants Commission, New Delhi
Dr. Praveen Arora, Scientist 'G' & Head, CHORD, Department of Science and Technology, New Delhi
Shri Madhavendra Narayan, Associate Editor, Indian National Science Academy, New Delhi

Panel Chair
Dr. Krishan Lal
Former President, Indian National Science Academy, New Delhi

February 27, 2019 at 11:00 am

Conference Hall, CSIR-NISCAIR
Dr. K. S. Krishnan Marg, Pusa, New Delhi-110012

PARASITOLOGY

Plants or animals which live in or on others and draw nutrients from them for their survival, are called Parasites and study of parasites is known as PARASITOLOGY

"See these Scientists! They exploit us for publishing research papers, getting Ph.D., attending seminars, visiting abroad and still they call us parasite?"

The essence of scientific temper

"...Do not believe on whatever you are told or you yourself have imagined it, unless you testify it. Do not believe whatever your teacher says just because you respect him, but believe only after your own examination and analysis; it would be your guiding factor that will never let you down. Even do not believe on whatever I say, unless you have tested it with due experimentation as a goldsmith does for testing of gold by putting it in fire!..."

- *Gautama Buddha*

- 400 BC

Thanks for your attention and patience

Dr. Manoj Kumar Patairiya
Adviser
Science & Engineering Research Council
Department of Science & Technology
Govt. of India, Technology Bhawan
New Mehrauli Road, New Delhi-110016

Editor:
Indian Journal of Science Communication
Phone : +91 -11-26590361
E-mail : manojpatairiya@yahoo.com
          mkp@nic.in
Website : www.dst.gov.in; www.iscos.org

Discussion Session 2
Prof. Anne Booth

✔ Prof. Anne Booth is an Emeritus Professor of Economics, School of Oriental and African Studies, University of London who has published many books on economic development with reference to Asia studies. She is very fluent in Bahasa Indonesia

✔ Holding various positions, among others Senior Research Fellow, Dept. of Economics, Research School of Pacific Studies, Australian National University, 1984- 91; Chief Technical Adviser, ILO/UNDP, Jakarta, 1988 -89; Professor of Economics (With reference to Asia), School of Oriental and African Studies, University of London, 1991 -2013; Lee Kong Chian NUS -Stanford Distinguished Fellow, Walter H. Shorenstein Asia-Pacific Research Center, Stanford University, October-November 2015, National University of Singapore, July- August 2016, etc.

✔ He is experienced in holding various consultations, among others World Bank Mission to Indonesia, February, 1978, on Problems and Prospects of the Food Crop Sector, Overseas Development Administration (United Kingdom) and Dept. of Finance (Jakarta) on Central -Local Contributions to the Financing of Agricultural Development, etc

| 📖 Emeritus Professor of Economics, School of Oriental and African Studies, University of London | ✏️ Ph.D. in Development Economics, 1976, "The IPEDA Land Tax in Indonesia", Australian National University | ✳️ Visiting Professor and Consultant in the field of development economy of Indonesia and Asia |

Open Access Publishing in Indonesia

My paper will deal with aspects of open access publishing (OAP) as I have experienced it in my own professional life, and make some comments about its future in Indonesia. I start with a brief history of OAP since the early years of this century, and discuss its likely evolution in the rather small world of academic publishing. I stress that OAP is not the same as digital publishing and the rapid growth in ebook publishing in the UK and elsewhere does not signify a similar growth in OAP. Indeed I argue that many publishers of both academic books and journals have displayed little support for OAP. Quite bluntly, they see it as a threat, rather than an opportunity.

My paper also looks at the history of the publishing industry in Indonesia In recent years, the publishing industry in Indonesia has developed not just in quantitative terms but also in terms of international recognition, due in part to Joko Widodo's policy to promote the creative economy, which has led to government support for literary-related initiatives. Indonesia was the Guest of Honour at the Frankfurt Book Fair in 2015 and the Market Focus country at the London Book Fair in 2019. But so far the development of the book industry in Indonesia has not paid much attention to digital publishing, although that will certainly change as internet access expands.

I argue that OAP has the potential to bring about rapid change in academic publishing in Indonesia. Libraries and a library culture have been very undeveloped in Indonesia, and many students even at the tertiary level have had little or no access to printed books and journals. To the extent that they read at all, they rely on photo copies passed on from teachers and fellow students. OAP should change this but it will depend on whether schools and universities are either willing or able to cope with the challenges OAP presents.

PRESENTATION OF ANNE BOOTH

Talking the experience in Indonesia, for studying and working in Indonesia for around 50 years, since graduated student from the Australia National University in the early 70s. Together with many foreigners, been studying the evolution of academic research in Indonesia and its many problems over the years. While there is tremendous progress in some areas, there is still some serious constraints, particularly on Indonesian scholars publishing internationally.

Indonesia emerged into independence with a very weak educational legacy from the Dutch colonial period. In the 1950s, there was tremendous pressure to expand the education facilities. The problems encountered with lack of teachers, and many teachers were recruited into the university system without having qualification to allow them to read the English language literature and other foreign languages. This was a constraint particularly on academic publishing, for not being able to read international literature meant that they were not able to give adequate lectures to their students.

During the 60s and 70s the situation was improved when the Ford Foundation began to introduce social sciences and send students abroad. They were sucked into high level policy advice, and universities were rather neglected. Very few Indonesians, very few published internationally simply because their English language skills were not enough to allow them to put together the kind of paper that was acceptable in international journals.

Things began to change in 2005, which all teachers on all levels in Indonesia had the opportunity to have adequate training. In addition, to get promotion, they had to publish internationally in English. Quite often she was asked to evaluate papers written by Indonesians, submitted to international journals, particularly journals emphasized on economic and social development in Asia Pacific region, but the standard of English language exposition was still improper. Editors and referees think this is an interesting paper, it addresses important questions, data analysis, but they need to improve the English exposition.

In Japan, many universities now hire native English speakers to help Japanese scholars produce work in English. In her understanding, this still does not happen to any great extent, even in the most prestigious faculties in Indonesia. In her own view, if Indonesians are going to publish more abroad, the universities need to make a great effort to mentor them producing articles. The constrains are in terms of language, scholarly presentation and get a good bibliography.

In Singapore, a lot of emphasis on international publication. Singaporean researchers almost all came through an English language school system and had

very little difficulties in writing papers and monographs that were published internationally.

In India, although only 5% of the population read and write in English fluently, but they are about 50-60 million people, which is almost like the UK population. This is part of the reason why the English language publishing has flourished in India to a much greater extent than anywhere else in Asia. It gives Indian academics an enormous advantage as far as publishing internationally.

How do you asses academics is a difficult one. She serves on two panels in the UK. Essentially, these panels set up to scrutinize and evaluate the research of all academics across all disciplines. Place of publication is important matter. It is quite clear that particular journals are going to be rated a lot higher, such as two prestigious presses in Britain, Oxford and Cambridge, which are usually rated high, and from other presses much less.

A number of publishers are now in the business of publishing simply for profits as they charge very high prices. Essentially, they publish monographs which they think will sell, rather than those that have genuine scholarly content.

" QUESTION AND ANSWER
Session 2

15.25 - 15.50

Discussion of Session 2

Anjana Singh:

Ask Prof. Tariq, since you were talking about open access program, there should be some minimization of the redundancy of the research. How would you give suggestions to the global people? It is not exactly plagiarism, but sometimes researchers do not know that some experiments have been done somewhere else in the corner of the world. What do you think can be done to minimize the redundancy of the research in the particular area?

Abdullah Tariq:

To reduce repetition of research, what we need is greater access to database, indexes. To access research, you need to access them which you have to pay. People in developing countries usually are unable to pay for them. These commercial entities' control should be in the hands of the academia. We need to regain this

ownership. If we have non-commercial databases which are available to everyone, then this problem would be resolved.

Anne Booth:

Relating to mentoring, particularly in the early career researchers, usually have problem of English language writing. In many UK universities, many academics do not have English as their first language. We find it is necessary to give early career researchers some assistance, not just for English language but also with academic presentation more broadly. In top Indonesian universities, how much effort is made to help early career researchers?

Mayling O. Gardiner:

Not much has been done as money is available for research but not for the preparation of doing research. What is available is a requirement that all undergraduates have to complete a course in research method. That is one semester,

and one of the difficulties of students is to read in English since most of the work is in English. They are not used to read much and writing essays. It has not been built up from the bottom, because all of a sudden they have to do research papers in order to graduate, and the system is not really there.

If open access is accessible, they must learn how to search, even if we give the research method. I did my undergraduate in the States and have the experience of writing more papers than my students have to. That makes all the difference to do several literature reviews for your paper. This whole research push is only a few years old in Indonesia, but then we have to compete with societies that have done it for centuries. It is the big divide between the rich, developed countries, and the poor. So how do we narrow the gap? I learned from this discussion to come together, collaborate, and to overcome this for our own societies, to develop and to be developed by the next generation.

Question:

In presentation, I hear that in India and China are the hotspots for predatory publishing. What can be done? What is the possible mechanism in these two countries mostly, that predatory journals or conferences can be minimized?

Manoj Patairiya:

In my presentation, mentioned about a consortium called CARE. They prepare an online list, and they have certain parameters. Based on these parameters, they recognize several journals from different categories. This list is maintained regularly and everybody can access, whoever wants to know which journal is recognized by CARE can only publish there. If it is not recognized by CARE, they can find these as predatory journals.

Anjana Singh:

One more question is that, you have mentioned, one nation one … in Indian policy for OA. How can it be applied in the nation?

Manoj Patairiya:

Every year there is a meeting called a negotiation meeting with these publishers. Where all these big publishers come to a common platform and there are committees of consortiums and they negotiate. They can ask for enhancement of the price, ranging from 1% to 15%. Every year, it is likely to enhance the price from 1-3% to 15%, which is really a huge amount. So the government has decided as part of policy, is there will be only one consortium. That one consortium will negotiate with all these publishers. For instance, I was able to maintain zero percent increase in that consortium, so there was no increase allowed. Subsequently, we have to exceed their request to some extent. There would be only one effort, more robust, moderated and monitored from the government side to likely get the access at a minimum price.

Question:

What do you think that the Indonesian government's strategy are trying to realize their OA program?

Anne Booth:

My impression, based on a few weeks I spent at University of Indonesia in 2017, I got the impression that students had access to OA which is hugely important. Basically, the vast majority of journals published in the US and the UK and other parts of the

world are now available to download for free. Moreover, the University of Indonesia is already a very privileged institution and has good internet access. However, that is not necessarily the case in many other parts of the country.

I would like to ask particularly in the Indian context, do all universities and research institutes now have good and fast internet access? If not, what is the Indian government doing about this? Apart from the English language issue, students do have to be able to access the internet.

Mayling O. Gardiner:

The University of Indonesia spends the highest amount of money paying for subscriptions, and the students have easy access to it. We do have reasonably good access to the internet and these journals that we subscribe to, but not all universities can afford it.

Manoj Patairiya:

In India, the Internet is now available to the nooks and corners of the nation. University system is blessed with a high speed network called NKN, National Knowledge Network. All the libraries are connected with the internet, and students can access publications which are available in one library to other library through this NKN.

As far as the English language is concerned, it is still very few people who can speak and write English, although the English understanding is higher compared to writing and speaking. What I suggest, maybe the journalist can take the responsibility, or the academia can take the responsibility, for fine tuning the research paper. It should not go in the hands of the middle man. And how to increase this

publication for encourage our scholars? When we compare to Western world, where academia, industry and research are very much hand in hand, in Asian countries like India, it is still growing. Most of the research are government funded, less in university system. Nowadays with the help of Indian Institute of Technology, now it is growing leaps and bounds, although there is still a lot of effort to be made for bringing together the research, academia and industry.

Abdullah Tariq:

One clarification that it is not India and China are the two hotspots, they are among the hotspots. There are other areas for production of predatory journals. In terms of participation, even Bangladesh is a hotspot, because India with CARE are protecting their authors from publishing predatory journals. Authors from other countries continue to publish predatory journals that are being published from India.

Mayling O. Gardiner:

Indian predatory journal publishers are very active in Indonesia, trying to sell their services for a fee. Researchers office in Indonesia do not know what is about and they respond to it. So there is still a lot of work to be done to make everybody aware.

Manoj Patairiya:

I think this CARE list can be made popular in neighbouring countries, so that prospective authors can consult their CARE list. Only when the journal exists in the CARE list, they can approach for publication, others can leave as cited. So that could be one solution.

Question:

How to manage the thesis as one of the local content, with open access or closed across and what are the benefits for the researcher and university?

Mayling O. Gardiner:

In Indonesia, since has been started, The University of Indonesia has several journals and you are free to publish, access and disseminate. That is the open access has been in Indonesia without charging.

Abdullah Tariq:

May I reply to the question that is posted regarding the institutional repositories? These repositories should be open access, in fact there is a directory of digital open access repositories. So once the thesis is all open access, that is beneficial in many ways. Thesis is one area where plagiarism is often rampant because students copy from previous thesis. If all these are available online in digital repositories, that will be very good for future students. Both to prevent plagiarism and also to make their research accessible.

Mayling O. Gardiner:

Indonesia does that. Before submitting, students have to get their thesis through a program. We're getting fewer and fewer plagiarized thesis because they are all on the database that we use to test upcoming theses and papers.

Manoj Patairiya:

There could be some regional arrangement for these repositories or some mechanism for standardization of the journals, to keep away the predatory journals. There could be a regional mechanism, especially for Asia Pacific.

" Wrap-up and Closing Webinar "

15.50 - 16.00

- The Indonesian Academy of Sciences as well as AASSA, IAP and ASSA invited participants for coming together and running this conference, where we learned a lot and share knowledge. The good discussion about how plagiarism and predatory journals and conferences has been nowadays quite high in number in the world, and should be combat to minimize the predatory academic journals and conferences.

- The most important is recognizing the danger of the oligopoly, very commercial publishers, which make it very prohibitively costly for scholars and students, particularly from developing countries just to access quality writings and data on scientific articles, and also to write and to publish. So there is a real danger of widening the gap between developed and developing countries because of the asymmetric relationship between these powerful publishers and the rest of the world, which is not in a position to benefit from this scientific data.

- The constraints faced by developing countries is that the education itself are not really get towards scientific production. The education system is extended to stress more on a more equal distribution of education rather than quality. Research has not really been a major factor, the need to serve the government has been the most important driving force for the education system. Moreover, the constraints of the English language make it very difficult for students and academics to read good English publications.

- Between the constraints of the education system and English language facility and this expensive publishing stranglehold on access to data is making it increasingly untenable to develop a more equitable global community of nations. It is going to make it difficult for us to actually reach the SDG goals of a more inclusive and equitable development.

- Open access should not be seen only as

part of improving the quality and quantity of scientific publications in developing countries but also as a wider application. Stakeholders should not only just be scientist but also the wider society, where important research should not only be used only to improve the credit points or for promotions to improve ranks, but at the end of the day, the role of scholars are really to benefit the wider society, to improve knowledge and innovations. So that open access has become very critical.

- Many constraints, pitfalls, and the issues of predatory journals, have to be faced, it becomes an increasingly serious problem for us. In Indonesia, this sharp increase in publications are not necessarily accompanied by a steep increase in quality either, because Indonesia has been one of the perpetrator contributing to the flourishing of these predatory journals. So there is an unintended consequence of policies of pushing Indonesian scholars to publish as speedily as possible.

- Open access aspirations is very important and it is still a work in progress, and AASSA has a very strategic role to promote this.

- The policy can be developed in this aspect, and how the world can come together and work with this. For sure, some results and recommendations have to be worked out in the future for uplifting and minimizing these predatory academic journals and conferences.

.

Main Agenda of International Webinar

01 **Greetings and Keynote Speech, Opening**
President of AIPI, President of AASSA, and Director General for
Higher Education , Ministry of Education and Culture

02 **Discussion Session 1**
Moderator: Prof. Zabta Khan Shinwari – EB AASSA/Pakistan
Academy of Sciences/Quaid -i-Azam University

03 **Discussion Session 2**
Moderator: Dr. Berry Juliandi – Indonesian Academy of Young
Scientists / IPB University, Indonesia

04 **Wrap-up/Statement & Closing**
Moderators and AIPI

Terms and Conditions
AASSA -AIPI International Webinar

- **The AASSA - AIPI Organizing Committee is freed from all legal responsibilities for all legal consequences that occur for the virtual services provided.**

- **The participants are deemed to know and agree to personal responsibility for any consequences arising from the choice provided by the Organizing Committee.**

Terms and Conditions
AASSA -AIPI International Webinar

01 The entire program will be recorded. The Webinar can be followed by the Zoom App. or You Tube.

02 The webinar will start at 13.00 Jakarta Time. Thank you to the participants who have registered for this webinar.

03 Participants must use their real names and institution.

04 The microphone function is muted when the speaker starts the presentation.

05 Question & Answer Sessions are facilitated through the Q&A Room, and/or by direct interaction through the rise hand menu.

06 The Photo Sessions will be carried out under the command of the officer.

Greetings and Keynote Speech

13.00 - 13.40

Opening Greetings and Keynote Speak

01
Welcoming Remarks
Prof. Satryo Soemantri Brodjonegoro
President of Indonesian Academy of Sciences (AIPI) /
Vice President of AASSA

02
Congratulatory Remarks
Prof. Yoo Hang Kim
President of Association of Academies and Societies of Sciences
in Asia (AASSA)

03
Keynote Speech and Opening
Prof. Nizam
Director General of Higher Education, Ministry of Education and
Culture

Keynote Speech and Opening

13.30 - 13.40

Opening and Keynote Speech

Prof. Nizam

Director General for Higher Education, Ministry of Education and Culture

Professor in Department of Civil Engineering, the GadjahMada University

Nizam has a long and distinguished academic and public service career. He is also the core teamfor the preparation of the Higher Education Law in 2012, the Medical Education Law 2013, and the Engineering Law 2014.

Secretary of the Council of Higher Education (2008-2013), Head of the Education Assessment Center at the Ministry of Education and Culture

KEYNOTE SPEECH

$\mathbb{T}$he Director General of Higher Education from the Ministry of Education & Culture, Prof. Nizam, gives the messages in his Keynote Speech, and then he opens formally the Webinar Series 2.

The Keynote Speech is titled "Indonesian Initiatives on the policy and strategy towards seamless scientific digital communication", which elaborate such as:

- It begins with UNESCO Open Access Declaration on 2012 (Paris Open Educational Resources / OER Declaration 2012), which was started with the universal declaration of human rights "everyone has the rights to education" followed by with many declarations.

- Framework on Indonesia ICT for education development is based on the

Law No. 12/2012 on Higher Education, which its content such as:
- Equitable access to quality of education
- Adult and continuing education
- Resource sharing
- Develop ICT for education
- Distance learning
- Develop higher education & research network
- Government encouragement and facilitating the development of open education resources
- Establish National Higher Education database system

- In the open educational resources, some materials in the content can be modified, which consist of:
  - Knowledge and material of education can be downloaded

freely, especially for education and learning
- Media of text book, lecture material, modules
- Multimedia, animation, visualization
- Life book, simulation, interactive media
- Real time data

• Indonesia open education resources blueprint was developed around 10 years ago with the implementation of some platforms. It gives access from any devices to national reposi-tory, GARUDA, and it nationally can access e-book, journals, scientific literatures, etc.
Every scholar can get open access and communication to the content available in the platform, anywhere anytime and with any device. The Ministry of Education is also incorpora-ted with other line ministries for infrastructure and development of other resources.

• Open Access (OA) Journals are promoted as vehicles to democratically get access to scientific literature. The national policy develops OA as an enabler the scientific literature to be accessed openly and freely, based on the government regulation, with the superstructure and policies, infrastructure and resources, standards and quality.
Superstructure and policies consist of: people (stakeholder, community, literacy), process (education, delivery, paradigm), content (knowledge, asset, repository), tools (application, spectrum, ICT role); while it starts with

trends in education and the output are the expectations and their values.

• The initiatives have started about 15 years ago, based on the spirit of sharing and collaboration among scholars in higher educations in Indonesia.
The platform called Garba Rujukan Digital or GARUDA (https://garuda.ristekbrin.go.id), the digital open access, which consists of the development applications such as: open library, open e-books, open courseware, open facilities, open learning, open journal, etc. GARUDA puts repository on open access journals, currently is around 12,130 journals. There is still requirements to develop and expand GARUDA regionally and globally in order to improve more access to publications. The other digital open platform is called Science & Technology Index or SINTA (https://sinta.ristekbrin.go.id), which delivers access to citations and expertise in Indonesia. It is a web-based research information system which offers fast access, easy and comprehensive measures to the performance of researchers, institutions, and journals in Indonesia. SINTA provides benchmarks and analysis, identification of research strength of each institution to develop collaborative partnership, to analyze the trends of research and expert directories. SINTA is indexing journals in SCOPUS (international reference database) as well as open access journals. SINTA is the important instrument in Indonesia to access

indexing of national and international journal databases, open access and SCOPUS index.

- It can be seen from the Directory of the Open Access Journal that the development of OA journals in Indonesia is very significantly exponential, as Indonesia promotes seriously the OA and is positioned in number 3 in Asia with 772 journals, based on 2017 data.

In the international publications, the effort of Indonesia government can be seen in trying to catch up the lag of publications. It is by promoting that researchers should publish their findings in the international journals. Since then, it has been increased rapidly within the last 5 years, which the most important that should be maintained that growth of rank and quality of journal improvement.

It is believed that through scientific collaboration and opening up scientific resources to scholars as wide as possible, it will democratize the knowledge of science and technology, to make future sustainable development mainly in education, research and development.

Discussion Session 1

MS1 **Prof. Zabta Khan Shinwari – EB AASSA/PAS/Quaid-i-Azam University**
Moderator for Discussion Session 1

01 **Dr. HansThulstrup – Director of UNESCO Jakarta Office**
"UNESCO Recommendation on Open Science and Stance on Digital Scholarly Publication."

02 **Dr. Danny Kingsley– Scholarly Communication Consultant Visiting Fellow, Australian National Centre for PublicAwarness of Science, ANU**
"Incentives, openness and quality"

03 **Prof. Dr. Anjana Singh– Nepal Academy of Science & Technology**
"Innovation Seen Though the Lens of Feminist Approach to the Philosophy of Science."

Discussion Session 1

Prof. Zabta Khan Shinwari

- ✓ Shinwari interest is Molecular Systematics & Medicinal plants, Bioethics; Biotechnology and Sustainable Development. Zabta K. Shinwari reported genes for drought, cold, and stress tolerance.

- ✓ His publications: 9 books authored; 8 international proceedings edited; 455 articles in impact factor journals His research work has been cited more than 12250; H index 55, i10-index 250; has mentored more than 100 M. Phil. & Ph. D. students; Patents 3.

- ✓ Research Presented/Invited Lectures Delivered (301 including national and International). Member, National/International Scientific Bodies (65); Grants/Funds Secured (60)

- ✓ Shinwari has developed linkages with various national and international agencies like UNESCO; Japan; BEP, USA; LNCV (Italy); UNICRI; Chinese Academy of Sciences, ANSO (China) and Bradford University etc. to promote sustainable development using Open Science, Bioethics and Biosecurity education in developing countries including Pakistan

📖 **Professor Emeritus of the Quaid -i-Azam University, Islamabad in 2020.**

✏️ **Ph.D. from Kyoto University, Japan**

⚙️ **Actively promoting Biosecurity to economic improvement growing biotechnology industry, international ethical & safety standards, improving the country's economic standing**

Discussion Session 11

Dr. Hans Thulstrup

✓ **Thulstrup is the UNESCO staff member during since 1996 with primary responsibilities in the natural sciences– in particular environmental and climate sciences - extensive experience in the establishment, management, funding, and development of programme's and projects relating to natural resource management, biodiversity conservation, climate change and sustainable development.**

✓ **He is a UNESCO natural sciences staff, author, editor and contributor to numerous proceedings, compendia and other publications.**

✓ **As a Unesco's Program Specialist Natural Science, he has served in various countries among other Indonesia, Thailand, Samoa, France, and China**

 Senior Programme Specialist for Water and Environmental Sciences, UNESCO Office in Jakarta

 Ph.D. in Scientific Communication, Australian National University

 Officer-in-Charge and Senior Programme Specialist for Water and Environmental Sciences, UNESCO Regional Bureau for Sciences, Jakarta.

UNESCO Recommendation on Open Science and Stance on Digital Scholarly Publications

A. Sugiura*, J. Lin*, F.A. Nurritasari* and H.D.Thusltrup*
*UNESCO Office Jakarta, Regional Science Bureau for Asia and the Pacific

Following the 40th General Conference's (November 2019) decision for UNESCO to develop a global normative instrument on Open Science, and in accordance with the global roadmap, UNESCO has embarked in drafting UNESCO Recommendation on Open Science in close, open and inclusive consultation with its Member States. As Open Science turns into a global movement, robust institutional and national Open Science policies and legal frameworks need to be developed by all nations to ensure that scientific knowledge, data and expertise are universally and openly accessible and their benefits universally and equitably shared.

The summary of regional highlights of the global consultation questionnaire for inputs into the development of the UNESCO Open Science Recommendation and the result of the regional consultations highlighted the main specificities of the regions. There was higher importance given to three elements of Open Science compared to the global result being 1) links with indigenous and local knowledge, 2) Open innovation, and 3) Open infrastructure. Asia and the Pacific region identified administrative burden and the lack of rewards and acknowledgment for authors related to ethical issues on data use as the first negative impact foresee for Open Science while globally, similar concerns were also stated Fragmented agreements/Unclear security and protection policies and the exploitation of information without proper reference system as the major possible negative impact of Open Science. In terms of obstacle to Open Science, the AP region identified the lack of international body

coordinating Open Science-related activities, policymakers and the lack of policy (IP, security) and the private sector and publishers while globally, it was the lack of common understanding of Open Science and communication among stakeholders and issues related to Internet, connectivity and infrastructures and the digital divide. Finally, AP region identified first Open Data, FAIR, Responsible, reproducible, and non-duplication of data and then the promotion of Open Science-related activities and intergovernmentally endorsed as the prerequisite for a just transition to Open Science Open.

Towards a UNESCO Recommendation on Open Science: Building a Global Consensus

The 2ⁿᵈ Draft Recommendation's considerations on access to digital publication

AASSA – AIPI International Webinar on DIGITAL SCHOLARLY COMMUNICATION
Seminar 2: Access to Digital Scholarly Publications: Strategies, Applications & and Impacts
28 April 2021

Dr. Hans Dencker Thulstrup
Officer-in-Charge
UNESCO Regional Science Bureau for Asia and the Pacific

unesco	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021

The UNESCO Recommendation
40ᵗʰ General Conference - 2019

In a **fragmented scientific and policy environment** , a **global understanding** of the meaning, opportunities and challenges of Open Science is still missing. Member states tasked UNESCO with the development of an international standard-setting instrument on Open Science in the form of a **UNESCO Recommendation on Open Science.**

The **UNESCO Recommendation on Open Science** relies on an **inclusive, transparent and consultative process** involving all countries and all stakeholders.

The Recommendation is expected to define **shared values and principles for Open Science**, with **proposals for action** to bring **citizens closer to science**, and commitments for a better **distribution, production and access** to science in the world.

UNESCO supports debates on Open Science **awareness, understanding** and **policy development.**

Guided by a multi-stakeholder **Open Science Advisory Committee**, the process is supported by a global comprehensive **Open Science Partnership.**

unesco	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021

6-12 May 2021 Intergovernmental special committee meeting related to the draft UNESCO Recommendation on Open Science

https://events.unesco.org/event?id=1907937890&lang=1033

The 2nd draft was shared to MS in March 2021

Science Policy Capacity Building Unit
UNESCO Office Jakarta

2021
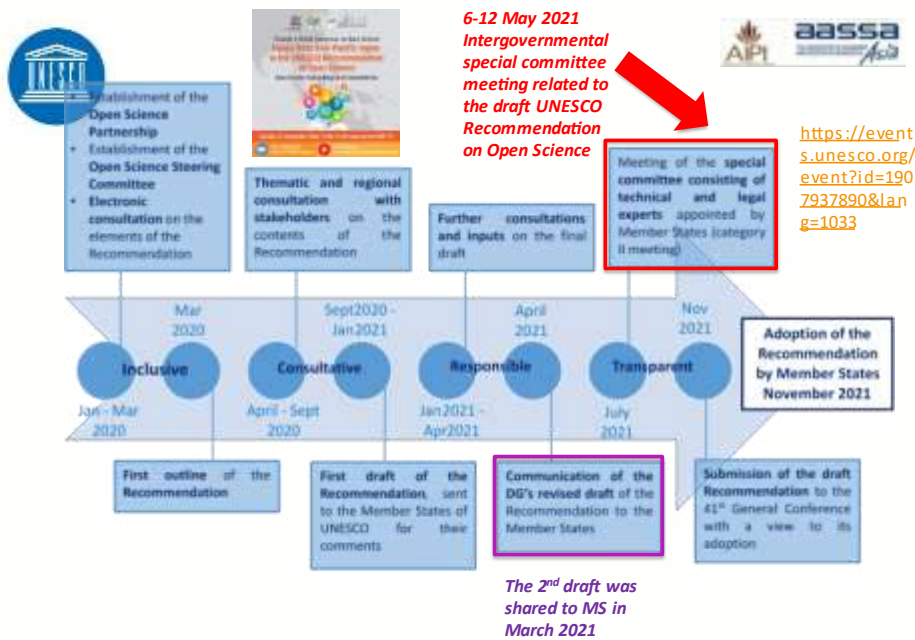
1st Draft of the UNESCO Open Science Recommendation (as of October 2020)

- PREAMBLE
- I   AIM AND OBJECTIVES OF THE RECOMMENDATION
- II   DEFINITION OF OPEN SCIENCE
- III   OPEN SCIENCE CORE VALUES AND GUIDING PRINCIPLES
- IV   AREAS OF ACTION
- V   MONITORING

Science Policy Capacity Building Unit
UNESCO Office Jakarta

2021
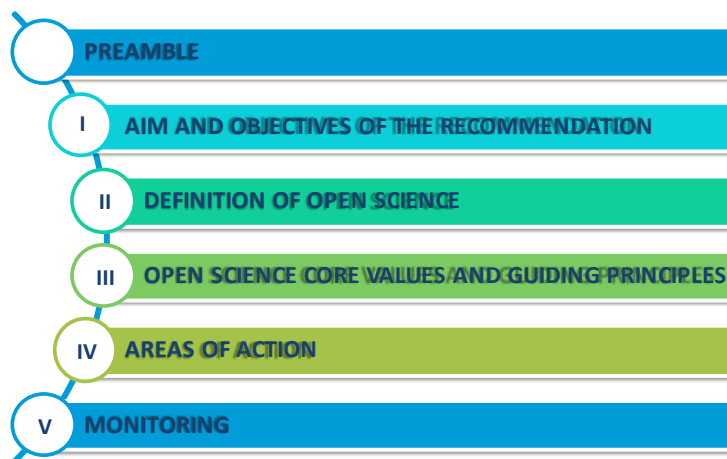
Six Major Points for Discussion
Comments from MS on the 1ˢᵗ Draft
(31 December 2020)

1 — ***Prime importance of research quality and integrity*** (incl. quality of publications)

Definition, actors and stakeholders of Open Science (incl. fostering bibliodiversity, preventing predatory behavior) **2**

3 — ***Centrality of capacity-building for Open Science***

Importance of international solidarity and international collaborations for Open Science (supporting non-commercial and collaborative publishing models) **4**

5 — ***Links between intellectual property rights and Open Science*** (open as much as possible, closed as less as possible, open not necessarily free)

Implementation and monitoring of Open Science **6**

| unesco | Science Policy Capacity Building Unit UNESCO Office Jakarta | 2021 |

Three Supplementary Issues
Comments from MS on the 1ˢᵗ Draft
(deadline 31 December 2020)

1ˢᵗ Issue — **The need to Foster a Culture of Open Science**

- to build an Open Science community worldwide where the focus shifts from science as a product to science as a process.

2ⁿᵈ Issue — **The need to ensure Quality & Combat Predatory practices**

- A coordinated international effort to combat predatory behavior in all Open Science practices

3ʳᵈ Issue — **Call for LT, sustainable, not for profit infrastructure and services supporting OS**

- Risk management of commercial monopolization of research data.

| unesco | Science Policy Capacity Building Unit UNESCO Office Jakarta | 2021 |

2nd Draft of the UNESCO Open Science Recommendation (as of March 2021)

PREAMBLE

I — **AIM AND OBJECTIVES OF THE RECOMMENDATION**

II — **DEFINITION OF OPEN SCIENCE**

III — **OPEN SCIENCE CORE VALUES AND GUIDING PRINCIPLES**

IV — **AREAS OF ACTION**

V — **MONITORING**

unesco	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021
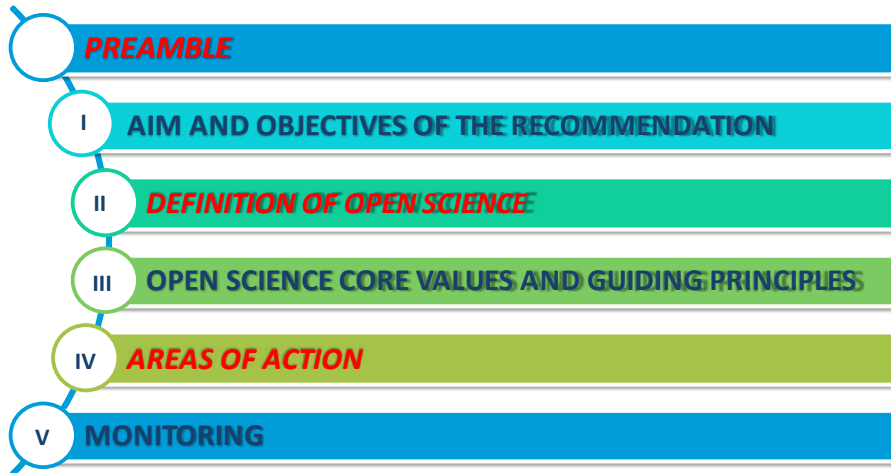
2nd Draft (as of March 2021)

PREAMBLE

Recalling that one of the key functions of UNESCO, as stipulated in Article I of its Constitution, is to maintain, increase and diffuse knowledge by encouraging cooperation among the nations in all branches of intellectual activity, including the exchange of publications, objects of artistic and scientific interest and other materials of information and by initiating methods of international cooperation calculated to give the people of all countries access to the printed and published materials produced by any of them,

Recalling that Open Science originated several decades ago as a movement to transform scientific practice to adapt to the changes, challenges, opportunities and risks of the digital era and to increase the societal impact of science, and *noting,* in this regard, the 1999 UNESCO/ ICSU Declaration on Science and the Use of Scientific Knowledge and the Science Agenda, the 2002 Budapest Open Access Initiative , the 2003 Bethesda Statement on Open Access Publishing and the 2003 Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities,

unesco	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021

2ⁿᵈ Draft (as of March 2021)

II DEFINITION OF OPEN SCIENCE

Open Science is defined as an inclusive construct that combines various movements and practices aiming:

- to make **scientific knowledge openly available, accessible and reusable for everyone,**
- **to increase scientific collaborations and sharing of information for the benefits of science and society, and**
- **to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.**

It includes all scientific disciplines and aspects of scholarly practices, including basic and applied sciences, natural and social sciences and the humanities, and it builds on the following key pillars.

	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021
unesco		

2ⁿᵈ Draft (ver. Mars 2021)

II DEFINITION OF OPEN SCIENCE

Key pillars of Open Science in the draft Recommendation

	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021
unesco		

2nd Draft (ver. Mars 2021)

II — DEFINITION OF OPEN SCIENCE

*"**Scientific publications** that include among others peer-reviewed journal articles, research reports, conference papers, books and the related scientific outputs (e.g. original scientific research results, research data, software, source code, source materials, workflows and protocols, digital representations of pictorial and graphical materials and scholarly multimedia material), that are openly licensed or dedicated to the public domain and deposited, upon publication, in an open online repository, following suitable technical standards, that is supported and maintained by an academic institution, scholarly society, government agency or other well-established not for-profit organization devoted to common good that enables open access, unrestricted distribution, interoperability, and long-term archiving ."*

Access to scientific knowledge and data should be **as open as possible**.
Access **restrictions** are only justifiable on the basis of:
- **national security,**
- **confidentiality,**
- **privacy,**
- **protection of intellectual property rights, secret indigenous knowledge, and endangered species.**

IV — AREAS OF ACTION — 2nd Draft (as of March 2021)

1. Promoting a **common understanding** of Open Science, associated benefits and challenges, as well as diverse paths to Open Science

7. Promoting **international and multistakeholder cooperation** in the context of Open Science and in view of reducing digital and knowledge gaps

2. Developing an enabling **policy environment** for Open Science

6. Promoting **innovative approaches** for Open Science at different stages of the scientific process

Areas of action

3. Investment in Open Science **infrastructures and services**

5. Fostering a culture of Open Science and **aligning incentives** for Open Science

4. Investing in **human resources**, education, digital literacy and capacity building for Open Science

- **In May 2021**: Member States will meet in an intergovernmental meeting to negotiate the text of the Recommendation.
- **In November 2021:** The final text will be presented to the 41^t session of the General Conference for consideration and adoption

Join us at **the Intergovernmental special committee meeting related to the draft UNESCO Recommendation on Open Science**

When, Local Time: From May 6, 2021, 12:00 PM to May 12, 2021, 15:00

Where: *Online from Paris, France

https://events.unesco.org/event?id=1907937890&lang=1033

Thank you for your attention.

	Science Policy Capacity Building Unit UNESCO Office Jakarta	2021
unesco		

Discussion Session 12

Dr. Danny Kingsley

- ✓ **Danny Kingsley** is a Scholarly Communication Consultant and a Visiting Fellow at the Australian National Centre for the Public Awareness of Science.
- ✓ She spent 2015- 2019 in the UK as the **Deputy Director of Cambridge University Libraries** with responsibility for Scholarly Communication and Research Support, so is very familiar with the open access landscape globally.
- ✓ Before moving to the UK, she established the **Australasian Open Access Strategy Group** (now called Open Access Australia). This was a natural extension from working at the **Australian National University** as the Manager of Scholarly Communications and her 2008 PhD on open access one of the first in the world.
- ✓ Danny Kingsley has worked as a **science communicator** since 1996.

Expert in developing strategy and policy in the higher education and research sector, most recently in Europe and the UK

Ph. D. - Australian National University - The effect of scholarly communication practices on engagement with open

Member of the **Board of Directors** for FORCE11 and sits on the Australian Academy of Science's National Committee for Data in Science

Incentives, Openness and Quality

Abstract:

There are a range of incentives for researchers to publish their work, from wanting to share their findings to improving their chances of promotion or recognition. How these incentives are framed can affect researcher behaviour, and sometimes result in poor research and publishing practice which has raised issues of 'research integrity'. Often research integrity programmes look at the behaviour of the individual researcher, but another approach is adopting open science principles - opening up the process of the research to allow for greater transparency and scrutiny. There is a global move towards open research, with the goal that research quality will improve as a result.

Incentives, openness and quality

AASSA – AIPI International Webinar on Digital Scholarly Communication

Dr Danny Kingsley
Scholarly Communication Consultant
Visiting Fellow CPAS, ANU

Twitter: @dannykay68

Image:
Danny Kingsley

Something is wrong

MPRA

Your right arm for a publication in AER?

ABSTRACT. The time tradeoff (TTO) method is popular in medical decision making for valuing health states. We use it to elicit economists' preferences for publishing in top economic journals and living without limbs. The economists value the journals highly, and have a clear preference between them, with *American Economic Review* (AER) the most preferred. Their responses imply they would sacrifice more than half a thumb for publishing in AER. The TTO results are consistent with ranking and willingness to pay results, and indicate that preferences for journals are neither guided by influence factors, nor by expectations of a resulting salary rise.

https://mpra.ub.uni-muenchen.de/36801/1/MPRA_paper_36801.pdf

How did we get here?

- The only thing that counts in academia is publication of novel results in high impact journals
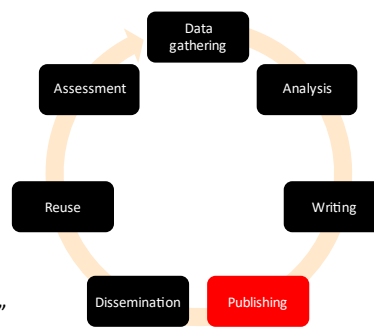
Steele, C., Butler, L. and Kingsley, D. "The Publishing Imperative: the pervasive influence of publication metrics" Learned Publishing, October 2006 Vol 19, Issue 4, pp. 277 - 290. 10.1087/095315106778690751/epdf

What is 'high impact'?

- This is NOT 'societal' or 'economic' impact
- In this context 'high impact' refers to journals with high Journal Impact Factors (JIF)
- There are major problems with the JIF
  - Only a selection of journals
  - Some disciplines badly represented
  - English language bias
  - North American bias
  - Timeline
  - Measuring the vessel, not the contents!
  - Uneven distribution

Image:
Danny Kingsley

Rewarding JIF is common

Jiménez-Contreras E, Delgado LópezCózar E, Ruiz-Pérez R, Fernández VM, Impact -factor rewards affect Spanish research. *Nature*. 2002 Feb 14;415(6873):726-9. doi: 10.1038/417898b

Huggett S, Impact factors: Cash puts publishingethics at risk in China, *Nature*. 2012 Oct 18;490(7420):342. doi: 10.1038/490342c.

The number of scientific papers published in China in recent years has increased exponentially (seego.nature.com/8fjhdt). There are concerns that these numbers are being inflated by a payment scheme offered by some Chinese institutions to boost publication in journals with high impact factors (J. Shao and H. Shen Learned Publ. 24, 95–97; 2011 http://dx.doi.org/10.1087/20110203).

Image:
Danny Kingsley

Multiple problems with current value systems

- The insistence on the need to publish novel results in high impact journals is creating a multitude of problems with the scientific endeavour
  - Reluctance to share data (all disciplines)
  - Hyperauthorship (Physics)
  - Reproducibility (Psychology, Neuroscience, Pharmacology)
  - Retraction (Biological and Medical Sciences)
  - Poor Science (Sociology, economics, climate science also vulnerable)
  - Attrition of young researchers (all disciplines)

Image:
Danny Kingsley

Solution – Open Research

Image: Flickr Andy_Bed of Nails CC - BY-NC-ND

Distribute dissemination across the research lifecycle and reward it

Data gathering · Analysis · Writing · Publishing · Dissemination · Reuse · Assessment
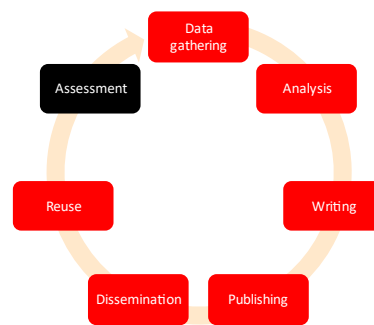
Blog series - *The Case for Open Research* July & August 2016
https://unlockingresearch.blog.lib.cam.ac.uk/?page_id=2#OpenResearch

Global focus

There is increased focus on research integrity & research practice

Image: Danny Kingsley

It's a tangled web!

Institutions traditionally have separate departments/units to consider data management, researcher assessment and reward, research integrity.

But they are all interlinked.

https://t.co/PVwr33o3YX?amp=1

Open for comment– current discussion

First draft of the UNESCO Recommendation on Open Science

https://unesdoc.unesco.org/ark:/48223/pf0000374837
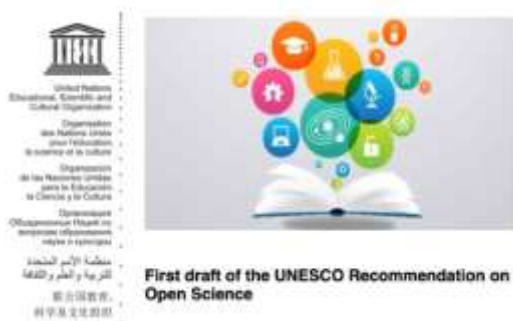
"*Recognizing* that Open Science originated as a movement to transform scientific practice to adapt to the changes, challenges, opportunities and risks of the 21st century digital era and to increase the societal impact of science in response to the growing and complex global issues facing humanity;"

Open Research is increasingly a university priority

Open Science

Entire countries are shifting

https://www.scienceguide.nl/wpcontent/uploads/2019/11/283.002 -Erkennen-en-Waarderen-Position-Paper_EN_web.pdf

Other ways of measuring…

This Altmetrics score of 579 is "in the top 5% of all research outputs scored by Altmetric"

http://journals.aps.org/prl/abstract/10.1103/PhysRevLett.114.191803

Blogged because of author list!

• https://aps.altmetric.com/details/3997327/blogs
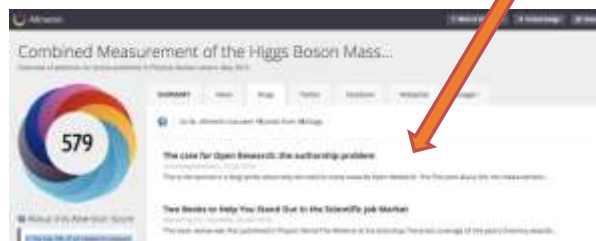
List of charters on changing how we reward research

- Over 90 declarations and position statements from around the world

Statement/declaration	Year	link
San Francisco Declaration on Research Assessment	2012	http://www.ascb.org/dora/
Force11 Joint Declaration on Data Citation Principles	2014	https://www.force11.org/datacitation
FAIR data principles	2015	https://www.force11.org/group/fairgroup/fairprinciples
Science International - (draft) Accord on Open Data	2015	http://www.icsu.org/news-centre/news/science-international-to-agree-international-accord-on-open-data
Leiden Manifesto for research metrics	2015	http://www.nature.com/news/bibliometrics-the-leiden-manifesto-for-research-metrics-1.17351
Science Europe Principles on Open Access publisher services	2015	http://www.scienceeurope.org/uploads/PressReleases/270415_Open_Access_New_Principles.pdf
European open science cloud for research - position paper	2015	http://libereurope.eu/wp-content/uploads/2015/11/OSC_Position_Paper-final-30.10.15.pdf
The Hague declaration on Knowledge Creation in the Digital Age	2015	http://thehaguedeclaration.com/
Principles of the Scholarly Commons	2017	https://www.force11.org/scholarly-commons/principles

http://tinyurl.com/scholcomm-charters

Researchers don't know, you know…

- "Researchers are generally held to have a low awareness of publishing issues and open access opportunities and are confused over copyright issues".
    - Reinsfelder, T. L. (2012). Open access publishing practices in a complex environment: Conditions, barriers, and bases of power. *Journal of Librarianship and Scholarly Communication*, *1*(1), 10.

- "Education is paramount; it is more important to prepare faculty to navigate the dynamic open access publishing environment than to attempt to create authoritative lists of ethical or unethical journals"
    - Beaubien, S., & Eckard, M. (2014). Addressing faculty publishing concerns with open access journal quality indicators. *Journal of Librarianship and Scholarly Communication*, *2*(2), eP1133

Seems simple

It might be of use to reframe the question about research misconduct. Instead of asking "*Why* would a researcher commit misconduct?", perhaps it would be of value to ask "*How is it possible* that a member of the scientific community can commit misconduct?" In short, shouldn't the very nature of how research is done protect from the risk of misconduct? It may be worth considering the possibility that simply engaging in good practices of research would be a strong protection from research misconduct occurring – independent of the factors contributing to the misconduct.

B MC Part of Springer Nature

Research Integrity and Peer Review

Home   About   Articles   Submission Guidelines

Research | Open Access | Published: 11 December 2020

Survey study of research integrity officers' perceptions of research practices associated with instances of research misconduct

Michael Kalichman

Research Integrity and Peer Review **5**, Article number: 17 (2020) | Cite this article

633 Accesses | 20 Altmetric | Metrics

One size does not fit all

nature

Explore content   Journal information   Publish with us   Subscribe

COMMENT

Redesign open science for Asia, Africa and Latin America

Researchers in many countries need custom-built systems to do robust and transparent science.

Train for open science

Sustainable changes require education. Universities should train researchers not just in field-specific theories, but also in how to improve scientific practice. This training should cover the pitfalls of modern academia, such as how prestige and academic metrics have contributed to publication bias. It must address the consequences of succumbing to these pressures for the quality, replicability and trustworthiness of research. And it should honestly highlight disagreements about whether and when these practices actually work – debates about when pre-registration of research is and is not useful, for instance. And researchers must learn about these topics as they begin their research careers, even as undergraduates, rather having to modify existing practices later.

Training in good scientific practices will set scientists up to think more critically and to adopt practices that increase the credibility of their work. For example, the Responsible Conduct of Research programme introduced to Malaysia has greatly improved research integrity in the country. Training will also enable researchers to add their diverse voices to continuing debates about open science, including active consideration of how science can benefit society, locally and globally.

Comparatively, Indonesia is doing OK

https://oaspa.org/wp-content/uploads/2021/03/OASPA-Montgomery-2021.pdf
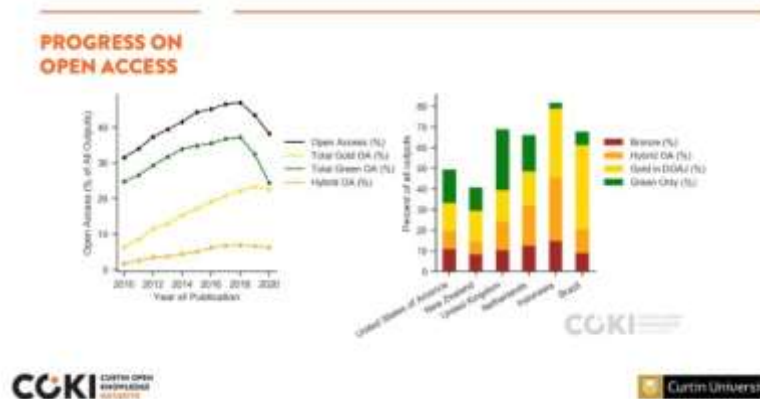
Discussion?

- Thanks for listening – let's discuss what this might mean for the future.

  Dr Danny Kingsley
  Visiting Fellow,
  Australian National Centre for the Public Awareness of Science
  e: danny@dannykingsley.com
  p: 0480 115 937
  t: @dannykay68

Image:
Danny Kingsley

Discussion Session 13

Prof. Anjana Singh

- ✓ Andjana Singh interest on research in: Water microbiology, Immunology and Infectious Diseases, Plant health field.
- ✓ Total national and international publications -126; Peer reviewed journals -59, Books -3, Book chapters-25, General and Proceedings Publications -29, Abstract Published -9, Accepted articles on pipeline-11.
- ✓ She has received various Honors and awards, among others Fulbright Scholarship -United States Government, Education Award (Shikshya Puraskar), Nepal, International Foundation for Science Grant, Sweden
- ✓ She is very actively involved in various scientific organizations among other Women in Science and Technology, Nepal, NAS senate member, NAST Management Committee Board Member, Organization for Women in Science in Developing World (OWSD) member, Coordinator of Women Scientists Forum Nepal (WSFN), NAST
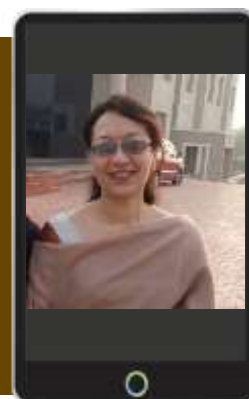
Professor in Microbiology of Tribhuvan University, Kathmansu, Nepal

Ph.D. from Jawaharlal Nehru University, India in 2004; M. Sc. Tribhuvan University, Kathmandu Nepal.

Academician, Nepal Academy of Science & Technology (NAST), Nepal; Executive member of Special committee of AASSA, Women in Science and Engineering WISE

Open Access Articles and Research Impact

Prof. Dr. Anjana Singh, Central Department of Microbiology, Kathmandu and Nepal Academy of Science and Technology, Lalitpur, Nepal

Most of the authors believe that their work gains greater research impact if it can be accessed easily. However, one study shows that the articles in four disciplines i.e. philosophy, political science, electrical and electronic engineering and mathematics that they have a greater research impact as measured by citations in the ISI Web of Science database when their authors make them freely available on the Internet. The open access reveals that scholars in various disciplines are adopting open-access practices and they being benefitted too. The open access is a scholarly article is a medium of communication which is a focal point to the academic endeavors. This is a scientific inquiry depending upon a critical communication among researchers and the exchange of ideas among academic institutions.

Open Access Articles and Research Impact
International Webinar on Digital Scholarly Communication

Jointly Organized by
Association of Academies and Societies of Sciences in Asia (AASSA)
Indonesian Academy of Sciences (AIPI)
Supported by
InterAcademy Partnership (IAP)
Academy of the Social Sciences in Australia (ASSA)

Prof. D. Anjana Singh
Central Dept of Microbiology, Tribhuvan University
and
Nepal Academy of Science and Technology
Lalitpur, Nepal

Most of the authors believe that their work gains greater research impact if it can be accessed easily. However, one study shows that the articles in 4 disciplines i.e. philosophy, political science, electrical and electronic engineering and mathematics that they have a greater research impact as measured by citations in the ISI Web of Science database when their authors make them freely available on the Internet . The open access reveals that scholars in various disciplines are adopting open -access practices and they being benefitted too. The open access is a scholarly article is a medium of communication which is a focal point to the academic endeavors. This is a scientific inquiry depending upon a critical communication among researchers and the exchange of ideas among academic institutions

Budapest Open Access Initiative (BOAI)[1] has defined the OA as, "By 'Open Access', we mean its free availability on the public Internet, permitting any user to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over integrity of their work and the right to be properly acknowledged and cited

MEANS OF OPEN ACCESS
OPEN ACCESS JOURNALS
OPEN ACCESS ARCHIVES OR REPOSITORIES
BUSINESS MODELS FOR OPEN ACCESS
UNIVERSITY DEPARTMENTS
GRANTS AND SPONSORSHIP FROM AGENCIES AND FOUNDATION
OPEN ARCHIVES AND INSTITUTIONAL REPOSITORIES
COMMERCIAL PUBLISHING MODEL
HYBRID OPEN ACCESS JOURNAL PROGRAM

AO J examples

(a). Royal Society of Chemistry

(b) Taylor & Francis

(c) Wiley & Sons

(d) Elsevier

(e) Oxford University Press

(f) Blackwell

The study showed that OA% articles varied from 5% -16% depending on discipline, year and country and were increasing slowly every year.

Thus, traditional publishing method prevents potential scholars to access to a large amount of research material which is useful for their researchprogramme. If there is no access to a research article, it can never be cited. OA avoids this hurdle. These studies indicate that OA articles are being used and cited in research by authors in their respective fields. These articles are receiving more citations than print articles. OA helps to increase prestige and recognition of research articles as well as authors. OA helps to increase the citation impact of a prestigious journal.

Success of OA will depend on mainly two things i.e. the first is funding and the second is contribution to scholarly communication. There are many supporters for promoting OA.

A number of funding bodies are supporting OA business models. Some funding bodies are Wellcome Trust, Research Councils UK (RCUK), Social Science and Humanities Research Council of Canada (SSHRS), Howard Hughes Foundation, Moore Foundation, Open Society Institute, etc. Wellcome Trust has started OA mandatory to Wellcome-Funded research

OA is contributing to scholarly communication. Thus, in view of the above, the future of OA will be bright.

The preference will be given to OA journals over print journals. The print will face challenge in the long run.

All educational institutions and societies should make provision for funds to get published their research findings in OA.

They should fix a definite percentage or proportion of total grant of research to get its results published in OA. They should make policies to provide money for OA because the funds spent on subscription of print and online journals have limited scope but the money spent for OA has world wide utility, thus it will be a proper use of public funding. Universities, societies, associations and research organizations may be publishers themselves to support OA.

The way to test the impact advantage of Open Access (OA) is not to compare the citation impact factors of OA and non-OA journals but to compare the citation counts of individual OA and non-OA articles appearing in the same (non-OA) journals.

Such ongoing comparisons are revealing dramatic citation advantages for OA.

To make more popular the movement of OA, authors should provide their papers accessible through personal homepage or deposit them into institutional and subject repositories.

Research Publication Country Comparison
(Number of citable articles in SCimago Ranked Journals)

H Index for 2016	478	197	167	164	135	106	86	58	40
Year	India	Pakistan	Viet Nam	Banglad.	Sri Lanka	Nepal	Cambod.	Myanm.	Afghan.
2016	128760	12999	5287	3786	1570	1001	359	26	149
2015	125540	11444	4253	3345	1228	931	315	200	73
2014	121129	11218	3835	3623	1152	881	278	131	93
2013	106516	11008	3502	3081	1118	806	237	98	65
2012	99524	9482	3007	3073	957	710	223	111	85
2011	90769	8789	2281	2414	864	623	190	158	85
2010	74861	7265	2065	2231	791	605	179	108	83

Source: http www scimagojr com/countryrank php   retrieved on 27 Dec 2017

Patent Applications by country and Year

Total filing (domestic + abroad filing)

Year	China	India	Israel	Pakistan	Bangladesh	Sri Lanka	Nepal
2016	1,257,202	25,795	15,086	273	149	315	11
2015	1,010,448	23,946	14,470	258	112	263	24
2014	837,817	22,445	13,437	202	59		12
2013	734,096	20,908	12,767	207	84	445	21
2012	561,408	18,202	12,384	117	71		9
2011	436,170	15,896	10,992	139	41	214	11
2010	308,326	14,869	10,929	136	69	243	
2009	241,434	11,939	9,778		56	213	
2008	204,268	11,546	10,721	190	60	219	
2007	161,308	10,529	10,557	129	30	167	

Source: http://www.wipo.int

DRB/Aug 28, 2018/NAST

Antelman (2004) examined research impact of the four disciplines in
Mathematics, Electrical and Electronic Engineering, Political Science and Philosophy.
Ten leading journals in each of the disciplines were selected and defined as per ISI's
Journal Citation Reports (JCR) for 2002 except philosophy for which there is no JCR. To
measure research impact, ISI'S Web of Science was used. The study found that 17% articles
were OA in Philosophy; 29% in Political Science; 37% in Electrical and
Electronic Engineering and 69% in Mathematics.
 The relative increase in citations for
OA articles was in the range of 45% in Philosophy, 51% in Electrical and Electronic
Engineering, 86% in Political Science and 91% in Mathematics.

1. Using Scholarly Articles in your Research ExtendedEssay 2011
2. What is a Scholarly Article?
3. Where to find them?
   Google Scholar
        Amalgamated Search
4. Open Access Journals

Extended Essays require the use of Scholarly Articles

Extended Essays require that you include scholarly articles in their research papers.

But how can you tell the difference between a scholarly publication and a popular one that's written for a general audience?

OA has given a new challenge to scholarly communication and publishing world. Increase in journals' prices and constant budget for the last two decades have posed a challenge for libraries to maintain their journal subscriptions up to a sufficient level to support their research and development activities.

Various means of OA have been discussed with supporting business models. **Authors have gone through various studies which were made in the recent past to show impact of OA towards its use and citation in scholarship and research.** The studies have shown that OA helps to increase the citation impact of journals and is helping to make scientific research more visible and accessible, thus affecting tremendously the scientific communication. **Authors hope that OA will have a bright future.**

Authors submit their papers to the publishers and they are peer reviewed, edited and published. With the advent of Internet, some of the journals are published in the electronic format. This new media has changed the production and distribution or dissemination of research in the form of journals. It has dramatically reduced the time in between the production and its access. Peer reviewing and editing also takes lesser time as compared to print.

Publishers peer-review, edit and prepare research content for publication. Authors get their own output by paying charges to publishers. Publishers are increasing prices of journals every year. Public money is used to provide funding for research, its publication and the purchase of the published research findings. Public funded research should be treated as a public good. Authors want to make their articles openly accessible to maximize their research impact and update in their research fields

The COVID-19 pandemic has driven the use of Open Access to some extends.

Thank you

QUESTION AND ANSWER
Session 1

14.20 - 14.40

DISCUSSION OF SESSION 1

Danny Kingsley:
Answering regarding copyright issues for publications in open access. That could be a major concern that somebody could steal your work. What tends to happen with open access? We have licensing associated with it. The license tells the reader what they are allowed to do with the work. If you have something that is copyrighted or rights reserved, they would have to contact you to use the work. Usually with open access, many organizations use something called Creative Commons. There are links in the Q&A chat to explain further. Creative Commons license can be associated with just an attribution license, which means you can use the work, modify it, adapt it, as long as you acknowledge the author. But if the author wants their work to stay in its full form, you could have Creative Commons No Derivatives license which means your work has to be used completely. There are lots of different combinations of the licenses that can be chosen and put on to your work, and that then determines what other people are allowed to do with the work.

Zabta Shinwari:
When we talk about open access, we should remember ethical issues. There are 200.000 corona-related journal articles in the last one year. But what happens is the journal takes only 3 days to be accepted in certain cases, but when there is a complaint for retraction, it takes 2 months to retract it. Even after retraction, scientists ignore the retraction and cite their own papers again and again. These cases are on unethical grounds. This is not only an

open access journal, but we also talk about the innovation things. There are different issues that we need to discuss, but this corona has given us the opportunity as well to discuss more about having humanitarian grounds as how to use the data.

Hans Thulstrup:

In UNESCO, we are supporting the revival and establishment of STEPAN (Science and Technology Policy Asian Network) with a specific focus on developing an open science roadmap for the region. So we will be hosting and promoting a series of discussions around taking forward the open science concept in Asia Pacific context. It would be something that we would be happy to see a wide participation in, and a venue where we can continue these discussions going forward.

Zabta Shinwari:

Who has to take the decision? How to handle all these issues that are related to open access? These are the issues that we are at the UNESCO forum and AIPI where we have an open access working group. We are discussing all these issues and we have come up with the recommendation to UNESCO as to how to address all these issues.

Discussion Session 2

MS2 — Dr. Berry Juliandi – Indonesian Academy of Young Scientist / IPB
Moderator for Discussion Session 2

04 — Prof. Dr. Abhi Veerakumarasivam – Dean, School of Medical & Life Sciences of Sunway University, Malaysia.
"Translating Transcriptomic Profiles: Refining Clinical Phenotyping of Bladder Cancer."

05 — Dr. Dasapta Erwin Irawan – Institute Technology of Bandung, Indonesia
"Orange and red are NOT the new open: leading science back to its rightful owners."

06 — Dr. Ashwin Sasongko – National ICT Council / Telkom University
"Open Access Publishing in Indonesia: A Short Note on the Implementation"

Discussion Session 2

Dr. Berry Juliandi

- ✓ Berry Juliandi is Dean of the Faculty of Mathematics and Natural Sciences, Bogor Agricultural University (2021-2026).
- ✓ He is active as a member of the Indonesian Academy of Young Scientists (ALMI) and served as Secretary General for the 2018-2020 period.
- ✓ Berry has been selected to be a member of ALMI since 2016 after being nominated based on his academic track record, international publications, and his achievements as a fellow of Kavli Frontiers of Science (2012 and 2017).
- ✓ He has research interests in the fields of Epigenetic regulation of neural stem cell differentiation, Neurogenesis and memory, Morphometrics, and Human biology. His scientific work has been published in various scientific journals.

Dean of Mathematics and Natural Science Faculty, IPB University

Ph. D. from Nara Institute of Science and Technology, Japan

Secretary General of the Indonesian Academy of Young Scientists (ALMI) in 2018-2020 and a fellow of ALMI since 2016

Discussion Session 21

Prof. Dr. Abhi Veerakumarasivam

- ✓ **Abhi Veerakumarasivam**, Dean of the School of Medical and Life Sciences at Sunway University, Malaysia, is a University of Cambridge -trained geneticist, educator and science communicator.
- ✓ His research in genetics involves the elucidation of components of the regulatory pathways that drive tumour recurrence and invasion as well as dissecting Asian genetic variations that confer differences in disease -risk and response to therapy.
- ✓ He has been awarded multiple awards including the National Cancer Council Malaysia Cancer Research Award, the Merdeka Award Grant and Gen.T List. In 2016, he became the first Asian to be crowned as the Best Science Communicator at the International Famelab Finals at the Cheltenham Science Festival, UK.
- ✓ He is currently the Co-Chair of the ASEAN Young Scientists Network that represents top young scientists in the region who not only demonstrate academic excellence but also contribute towards nation -building through STEM promotion and advocacy.
- ✓ Abhi truly believes that the greatest healthcare challenges facing us in the 21 st century can only be addressed through an interdisciplinary approach that promotes effective communication and policies that support the translation of scientific discoveries and enabling technologies to improve the quality of life and promote social justice.

Professor of the School of Medical and Life Sciences, Sunway University, Malaysia's leading private universities	PhD from the University of Southampton as a Commonwealth Scholar	Dean of the School of Medical and Life Sciences at Sunway University, Co-Chair of the ASEAN Young Scientists Network

Translating Transcriptomic Profiles: Refining Clinical Phenotyping of Bladder Cancer

Abhi Veerakumarasivam
School of Medical and Life Sciences, Sunway University

Despite significant advancements in the development of new cancer diagnostic and therapeutic strategies, the survival rates of certain types of cancers such as bladder cancer have plateaued over the last few decades. While cancers share some common convergent molecular features such as the dysregulation of classical tumour suppressor genes and oncogenes, great genetic intra- and inter-tumour heterogeneity exist. The dysregulation of the (epi)genetic orchestra within tumour cells have also been found to impact their cellular behaviour and ultimately influence patient prognosis. The ability of transcriptomic profiles to provide a snapshot of global cellular events is essential in clarifying the link between the molecular underpinnings of cells and their cellular phenotypes. The omics-driven dissection of the complexity and heterogeneity of tumours has helped in the discovery of potential biomarkers; including predictive biomarkers of response that can help stratify the management of patients. The ability to stratify patient management not only maximises treatment efficacy but also reduces the risk of treatment-related adverse event in patients who are unlikely to benefit from a particular therapy. Besides biomarker discovery, the use of transcriptomics to better understand the mechanisms of action and resistance of novel therapeutics such as oncolytic viruses and immunotherapy is crucial in the widespread clinical translation of these new therapeutic modalities. The continuous effort to enhance the integration of multi-omics datasets with clinical or biological-relevant outcomes is key towards realising the promise of personalised medicine in oncology.

AASSA-AIPI International Webinar
Digital Scholarly Communication

Considerations in Embracing Online Access:
Institutional & Individual Responsibilities

Prof Dr Abhi Veerakumarasivam PhD (Cambridge)

Dean, School of Medical and Life Sciences, Sunway University
Chair, International Network for Government Science Advice (INGSA) Asia

AMERICAN
Scientist

Open Science Isn't Always Open to All Scientists

BY CHRISTIE BAHLAI, LEWIS J. BARTLETT, KEVIN R. BURGIO, AURIEL M. V. FOURNIER, CARL N. KEISER, TIMOTHÉE POISOT, KAITLIN STACK WHITNEY

Current efforts to make research more accessible and transparent can reinforce inequality within STEM professions.

There are two aspects to consider:

Making digital scholarly
publications available to all

Providing the necessary
tools to ensure the ability
to access these available
publications

What is the Social Responsibility of Science?
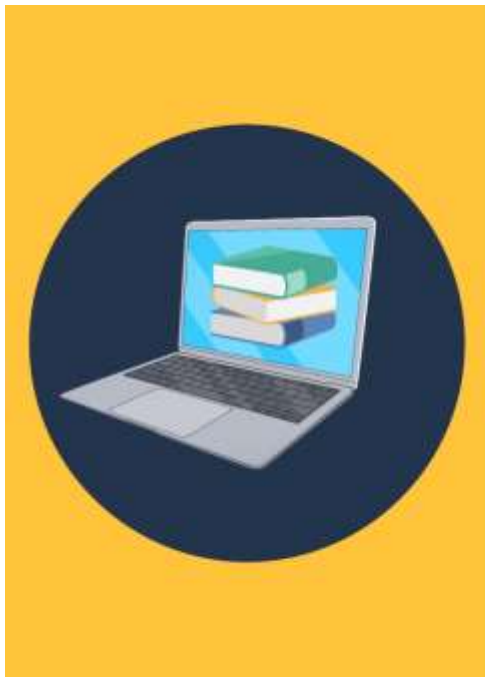
Making digital scholarly
publications available to all

01 **Consortial Open Access Model**

02 **Change in Funding Practices**

03 **Innovative Credit System**

ASEAN Online Collaborative Platform

What is ASEAN OCP?

A digital platform established to promote collaboration and dissemination of information, opportunities and updates. This online platform acts as the official modus operandi of the ASEAN YSN to promote continuous engagement with young researchers in the region as well as the ASEAN diaspora. The ASEAN OCP is more than a website and database of all the ASEAN YSN fellows, affiliates and partners. It also facilitates robust real-time discussions of pertinent issues and opportunities in ASEAN that enables representative viewpoints from across ASEAN.
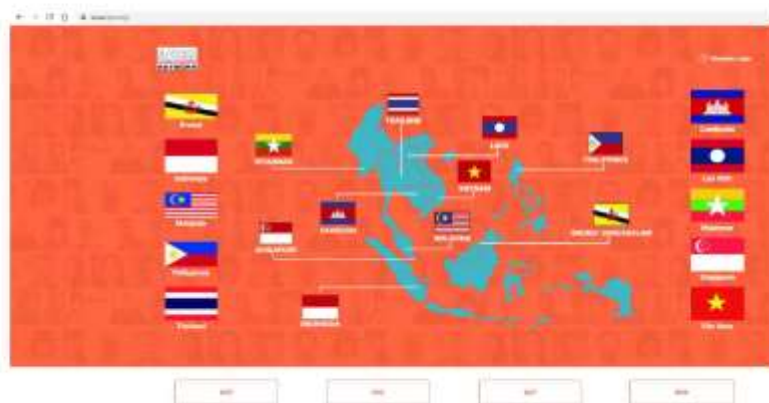
Global State of Young Scientists GloSYS ASEAN

Resources Gap

Providing the necessary tools to ensure the ability to access the available publications

National Fiberisation and Connectivity Plan (NFCP)

Veveonah Mosibin

Ecology and Society

Publishes new articles as soon as they are ready in an "Issue in Progress"

unpaywall

An open database of 28,926,197 free scholarly articles.

We harvest Open Access content from over 50,000 publishers and repositories, and make it easy to find, track, and use.

Click here, Read for free.

The race against COVID-19

Access to verified and peer reviewed data, journal articles, and laboratory logbooks is central to the fight against COVID-19 as it facilitates better and faster research towards a vaccine and informs key public health measures
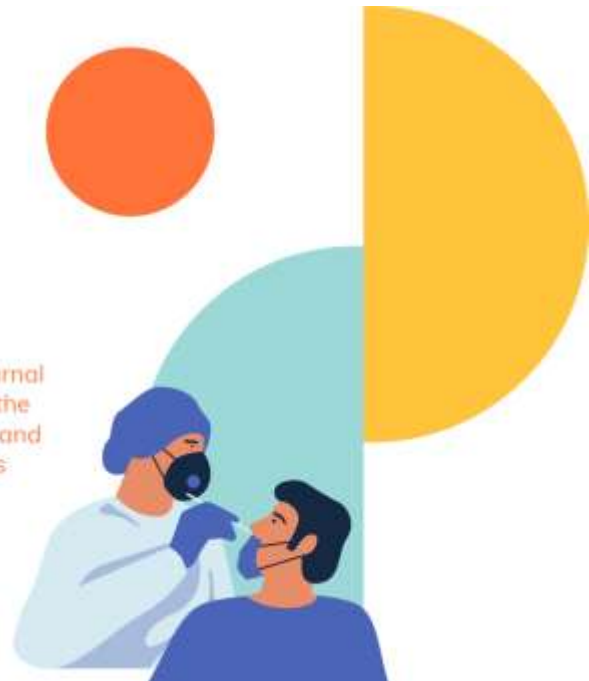
Rise of Preprints: Impact Vs Recognition
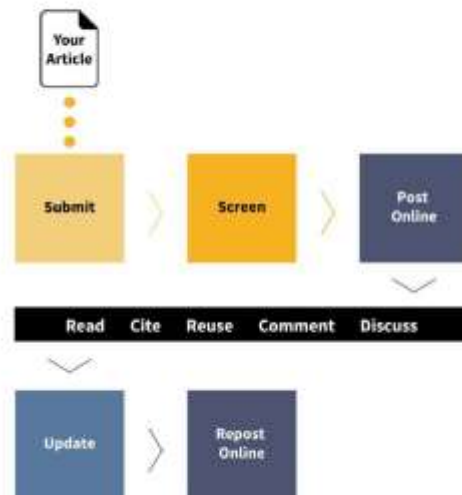
Continuity of academic and research activity

Open access content allows academic learning and research to continue despite the lockdowns and quarantines put into place to mitigate the spread of the virus

Changing the nature in how we operate in science

Impact

Academic Impact

- Increase citation counts
- Generate discussion outside of academic field
- Add to overall value of research
- Accelerate science
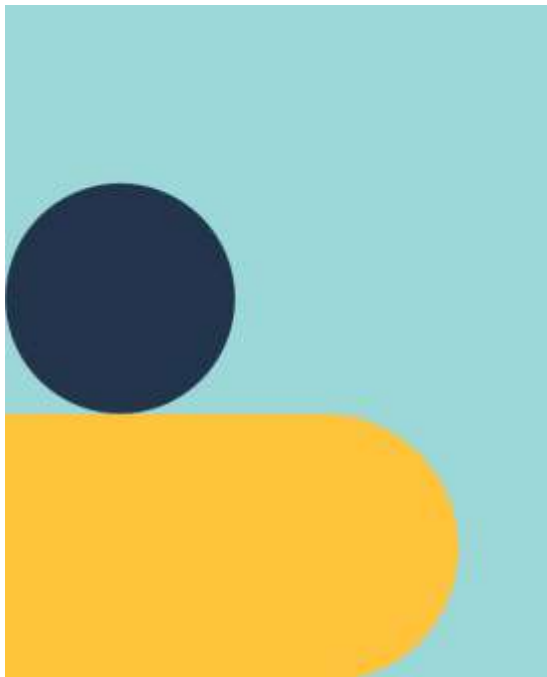
Economic Impact

Reduce cost

Encourage innovation

Societal Impact

Open access to the scholarly literature does not just benefit academics but also has wider impacts on other domains in society

Increase & democratize scientific discourse

Patient groups

NGOs

COVID-19 RNA Based Vaccines and the Risk of Prion Disease

J. Bart Classen, MD*

Classen Immunotherapies, Inc., 3637 Rockdale Road, Manchester, MD 21102, E-mail: classen@vaccines.net.

*Correspondence:
J. Bart Classen, MD, Classen Immunotherapies, Inc., 3637 Rockdale Road, Manchester, MD 21102, Tel: 410-377-8526.

ABSTRACT

Development of new vaccine technology has been plagued with problems in the past. The current RNA based SARS CoV-2 vaccines were approved in the US using an emergency order without extensive long term safety testing. In this paper the Pfizer COVID-19 vaccine was evaluated for the potential to induce prion-based disease in vaccine recipients. The RNA sequence of the vaccine as well as the spike protein target interaction were analyzed for the potential to convert intracellular RNA binding proteins TAR DNA binding protein (TDP-43) and Fused in Sarcoma (FUS) into their pathologic prion conformations. The results indicate that the vaccine RNA has specific sequences that may induce TDP-43 and FUS to fold into their pathologic prion confirmations. In the current analysis a total of sixteen UG tandem repeats (ΨGΨG) were identified and additional UG (ΨG) rich sequences were identified. Two GGΨA sequences were found. Potential G Quadruplex sequences are possibly present but a more sophisticated

Potential Negative Impact of Open Access

Less robust peer review

Predatory journals

Risks

Launching of
Malaysian Educational Module on
Responsible Conduct of Research

FLAGSHIP PROGRAMME OF ASEAN YOUNG SCIENTISTS NETWORK

ASEAN Responsible Conduct of Research
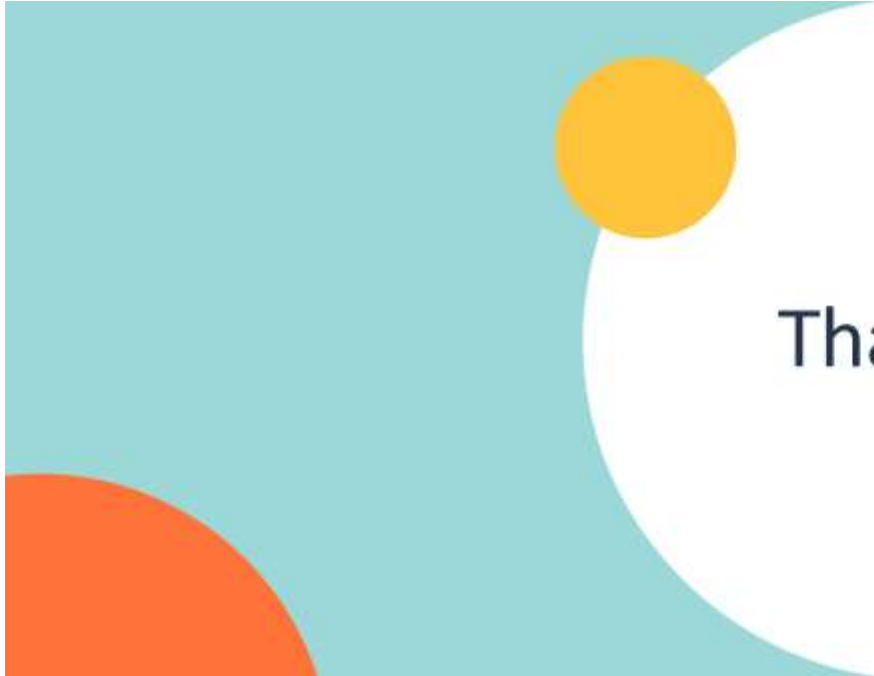
Discussion Session 22

Dr. Dasapta Erwin Irawan

- ✓ Lecturer of Hydrogeology, Applied Geology Research Group, Faculty of Earth Sciences and Technology, ITB
- ✓ His research focus is in the field of hydrogeology (groundwater). On a daily basis, aside from teaching (videos, materials), he has been active in blogging and researching groundwater, since 2013.
- ✓ Mr. Erwin has also been active in spreading ideas about open science as part of the knowledge democratization movement. Currently Erwin is making a new movement # 365figures to distribute one of his drawings every day of the year. Apart from FB, Erwin is also actively spreading his ideas via Twitter @dasaptaerwin.

Lecturer / Researcher at Faculty of Earth Sciences and Technology, ITB, Indonesia

Dr. in Geological Engineering from Faculty of Earth Sciences and Technology, ITB, 2009.

Lecturer/researcher of hydrogeology - Applied Geology Research Group, Faculty of Earth Sciences and Technology, ITB

Orange and Red are NOT the New Open: Leading Science Back to Its Rightful Owners

Dasapta Erwin Irawan[1] , Juneman Abraham[2] , Maryam Qonita[3], and Putu Sukma Kurniawan[4]

[1] Faculty of Earth Sciences and Technology, Institut Teknologi Bandung
[2] Psychology Department, Faculty of Humanities, Bina Nusantara University, DKI Jakarta
[3] Psychology Department, Graduate School of Arts and Science, New York University
[4] Faculty of Economics, Universitas Pendidikan Ganesha

Abstract

We've been putting open access the wrong way, towards achieving the wrong end. That makes us the target of another massive marketing using the name of open access (OA) and open science (OS). Most of the commercial brands (orange, red, and others) would send out messages that their ways are the only way to go OA and OS. It ends up with us, the producers of science, spending more money to pay for the unnecessary things to do OS, in the name of reputation, fame, and glory. We call this recent phenomenon the Counterfeit OA and OS that we should put on our radar. The way forward from it is to dismantle the concept of OS and detach unnecessary components that are often used as symbols for reputation, as those components are most likely to be used by the brands in their promotion. Then we should put more attention on the content and the OA as the way towards reproducibility and dissemination to increase engagement between researchers to progress science further and faster.

Orange and red are NOT the new open: leading science back to its rightful owners

A summary of key points for research policy in Indonesia

1. Dasapta Erwin Irawan (Faculty of Earth Sciences and Technology, Institut Teknologi Bandung),
2. Juneman Abraham (Faculty of Humanities, Bina Nusantara University),
3. Maryam Qonita (Graduate School of Arts and Science, New York University), and
4. Putu Sukma Kurniawan (Faculty of Economics, Universitas Pendidikan Ganesha)

This is me.

We could say that academics have been captivated by their own mind
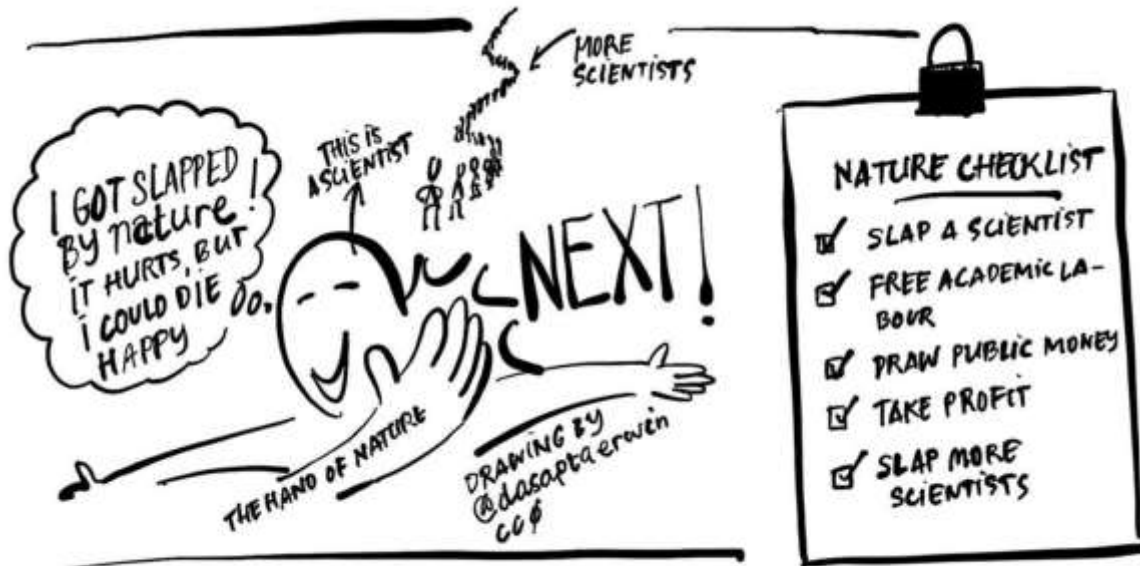
https://commons.wikimedia.org/wiki/File:I_got_slapped_by_Nature._-_I_could_die_happy.jpg

https://www.forbes.com/sites/stevensalzberg/2020/12/07/prestige-journal-publisher-nature-slaps-scientists-in-the-face/?sh=1094925ae46c

The life of academics is simply distorted
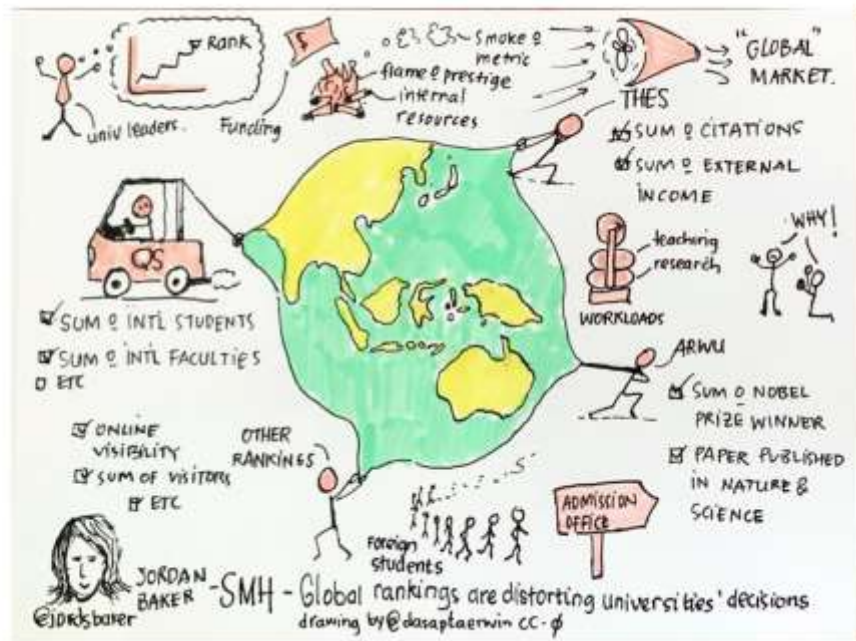
This is not a
hyperbolic
way in how
to explain
our situation

This is not a
hyperbolic
way in how
to explain
our situation

One of the impact is we are becoming a target of marketing strategy

This should have been the things we're after

NOT THE ORANGE NOR RED BRAND

To prioritize the capacity development of physical (including digital) open infrastructure as well as leveraging human resources competency in order to support such infrastructure that appreciates the diversity of cognition, affection, conation, behavior and culture of the Indonesian people (as opposed to continuously feeding self-serving academic

Cultivate academic integrity that prioritizes not only intellectual modesty, but also *intellectual honesty*, instead.

Beyond that, we need to change how we judge research.

To rethink of rankings in form of three levels of intervention to mitigate the impact of academic imperialism and even de-imperialism, namely *individual, cultural, and structural interventions.*

To change the spirit of development to "*Democratising Knowledge*" (the English version manuscript can be accessed here).

shift from imperialistic *publish or perish* to nourishing **publish and flourish**

Cultural change in **rewarding openness** in research and publication practices must be strengthened. For example, in social media, reduce the frequency of congratulating institutions or individuals who "merely" have successfully placed their journals or articles on certain quantitative measures (e.g. high quartile or high impact factor)

This mindset implies an individual's attitude that is open to all possible modes of conducting research and publication, followed by critical thinking on the limitations of ranking methodologies.

#JonTennantsMemorialDay

9th April, 2021
12pm (London time)

This article was written to commemorate the passing of Dr. Jon Tennant on the 9th of April 2020 in Ubud, Bali. He has shared a powerful voice in open science. May his soul rest in peace.
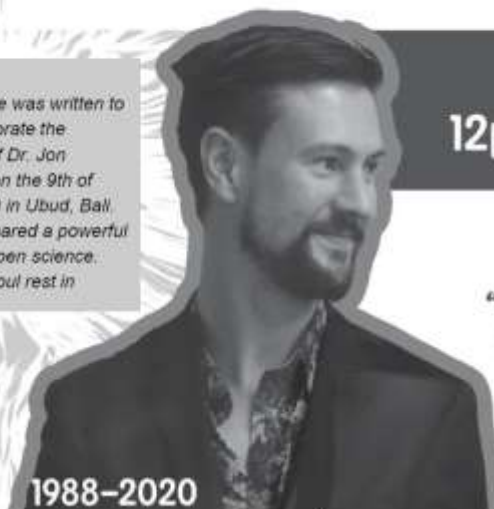
"Knowledge has no master"
Jon Tennant

1988–2020

join the TV stream at
youtube.com/OpenScienceTV
subscribe and turn on notifications

PEN SCIENCE TV

Discussion Session 23

Dr. Ashwin Sasongko

- ✓ Ashwin Sasongko is an Executive Member, Indonesian National Information and Communication Technologies (ICT) Council.
- ✓ His current activity is as chair of ICT Commission of the National Research Council, executive member of the National ICT Council and ICT Governance lecturer at Telkom University, provide opportunities to use his rich experiences to improve ICT public policies and regulations.
- ✓ Sasongko is also involved with various organizations, in helping to revise ICT regulations, many of those he helped to set up during his time as senior government executive.
- ✓ Ashwin Sasongko has a strong background in ICT from his education and industrial experiences. His appointment in various senior government executive positions has given him experience in ICT public policy, regulations and governance. His last Government executive position until November 2013 was the Director General of Informatics Application at the Ministry of Communication and Information Technology, reporting directly to the Minister.

Principle Researcher from Indonesian Institute of Sciences

Ashwin Sasongko has a long and distinguished researcher and public service career.

Lecturer / Chairman of Research Center for ICT Business and Public Policy Telkom University

Open Access publishing in Indonesia
A short note on the implementation

Ashwin Sasongko Sastrosubroto
Member of Indonesian National ICT Council
(Dewan TIK Nasional)
Lecturer, Telkom University

Most of the Scientific Indonesian Journals and other publications, published mainly by Universities and Research Institutes, are indexed in SINTA (Science and Technology Index), operated by the Ministry for Research and Technology; SINTA was started in 2016 and operates together with several other platforms. [https://www.sinta.ristekbrin.go.id/]. An Open Access Communities is also available for those who has interest in this field [https://openaccessid.weebly.com/].

It is understandable that to carry out the Open Access activities, ICT (Information and Communication Technology) Infrastructure is a must.

This presentation will describe the Indonesian Open Access Activities in general, with special emphasis on the system operated by the Ministry for Research and Technology. This will include also the related Infrastructure development in Indonesia, including those for rural areas.

It should be noted that the Open Access activities in Indonesia are certainly affected by similar movements globally, from The Berlin Open Access Conferences, UNESCO open Access activities up to various regional activities.

Open Access publishing in Indonesia

A short note on the implementation

AIPI Webinar, 28 April 2021, 13.00 – 16.00
Ashwin Sasongko Sastrosubroto
Member of Indonesian National ICT Council
(Dewan TIK Nasional)
Lecturer, Telkom University

Introduction

- Open Access will be discussed based on the access to Scientific Publications in Indonesia;
- Most of the Scientific Indonesian Journals and other publications, published mainly by Universities and Research Institute, are indexed in SINTA (Science and Technology Index), operated by the Ministry for Research and Technology; SINTA was started in 2016 and operates together with several other platforms. [https://www.sinta.ristekbrin.go.id/].
- An Open Access Communities is also available for those who has interest in this field [https://openaccessid.weebly.com/].
- To carry the Open Access activities, ICT Infrastructure is a must
- The Open Access activities in Indonesia are certainly affected by similar movements globally, from The Berlin Open Access Conferences up to regional activities. Note also the Indonesian philosophy presented by Ms Mayling Oey-Gardiner from AIPI last March in the first session of this Webinar.

SINTA and others (1)

- SINTA is basically the integrator of many data bases of scientific Publications in Indonesia, from journals, Books, Authors, Subjects, IPRs etc; SINTA also provides Information on publications from other countries too. In addition, SINTA also carry out analysis of the research institutions up to the position of Indonesia in research activities Globally;

- The Ministry also operates several other platforms for various purposes, integrated with SINTA.

- GARUDA provide detail information on most of the Journals, Articles, Conference Proceedings etc published In Indonesia [https://garuda.ristekbrin.go.id/].

- RAMA is the Repository of University Students' Final Projects; So, detail of the projects from various Universities can be found here [https://rama.ristekbrin.go.id/].

SINTA and others (2)

- ANJANI is the platform to support integrity of Scientific Indonesian Publications; It provides software to check similarity of publications so that Plagiarism can be avoided. The data source mainly derived from SINTA, RAMA and GARUDA. It even provides facility to report fraud in publications [http://anjani.ristekbrin.go.id/].

- ARJUNA provides information on Accreditation of Journals [http://arjuna.ristekbrin.go.id/].

- Other portals integrated with SINTA for various Information are available too.

- The Open Access Community, provides information on various open journals and publications, as well as information on various related activities.

- Note that many Indonesia journals are also listed in various portals globally related to Open Access, such as DOAJ and others. [https://doaj.org/search/journals?%23=%23.Wv__6liFM2w&source=%7B%22query%22%3A%7B%22match_all%22%3A%7B%7D%7D%2C%22size%22%3A50%2C%22sort%22%3A%5B%7B%22created_date%22%3A%7B%22order%22%3A%22desc%22%7D%7D%5D%7D#.Wv__6liFM2w]

ICT Infrastructure (1)

- In order for the Open Access operate, ICT Infrastructure is needed; The Telecommunication access and on top of that also the Internet Access provided by Indonesia ISPs.

- **Indonesia**, represented by the Minister of CIT, Communication and Information Technology (Kemen Kominfo), followed the WSIS 1 in Geneva 2003 and then WSIS 2 in Tunisia 2005, including the set up of the 10 WSIS targets.

- Target no 1 is to connect all villages, hence basically provide access to all people;

- Target no 2 and 3 are to connect all schools, universities, scientific and research Institutions.

- If these targets are fulfilled, then the Infrastructure needed for Open Access is available. Due to the large area of Indonesia, this is a problem to be solved.

ICT Infrastructure (2)

- **In order to overcome** the approach is to set up Community Access Point and also Mobile Access Point that move from one village to another. Satellite is mainly used for these access Points.

- Another approach to connect all villages is to use the USO funding, connecting many islands with FO, called the Palapa Ring Program. The last mile is also supported by this funding.

- In addition to the access, Universities and Research Institutions have to set up also their IT infrastructure to support the data base for their publications.

- It is worth noted that IT infrastructure technology is developing rapidly, hence, continuous maintenance is a must; Due to the problem, in many cases the IT Infrastructure has to be set up under limited Financial and Human resources.

Impacts of Open Access

- First of all, Ms Mayling Oey-Gardiner in her presentation last March in the first session of this Webinar, had shown the Impact.

- SINTA also showed the impact, that starting in around 2011/2012, due to the requirement for scientist to publish their scientific publications, the number of publications start to rise and around 2015/2016, rose very fast and by 2018, Indonesia is the highest scientific paper publisher among ASEAN Countries.

- GARUDA notes that the number of journals published in Indonesia is also very high, 11.938 from 2214 Publishers.

Notes for Improvements

- Amid those high impacts, several points for improvements are necessary to be reviewed.

- Indonesian Journals, both in Indonesian and English language, needs to be indexed globally too, such as Scopus, Thomson Reuters etc; By April 2019 for example, the number of journals with Scopus index is 47 [https://lldikti12.ristekdikti.go.id/2019/06/10/daftar-jurnal-indonesia-terindex-scopus-per-april-2019.html]

- With more and more higher quality journals, the global citations of local articles will be certainly increased too.

- Other improvements can be certainly discussed too including the commercialization of Research outcomes.

Final Notes

Science and Technology is developing rapidly; in many cases, across various subjects. Hence scientific publications will be increased and needs to be accessed by as many researchers as possible for the advancement of Science and Technology itself; Many research on Corona for example, published in usually Closed Access publications, now are becoming Open Access.

Due to Corona, ICT infrastructures is also developing rapidly. Hence, Access to Villages as well as Remote areas, is being developed asap. This will benefit also the Open Access program

Thanks and looking forward for Fruitful discussions

QUESTION AND ANSWER
Session 2

15.40 - 16.00

DISCUSSION OF SESSION 2

Berry Juliandi:
Asking the opinion from the three speakers about the relevance of open sciences in Indonesia and other area in the world, especially mentioning that many of the research are funded by the government which come from the tax payers. It is an obligatory that science resulted from tax money is freely available. However, the government put some efforts to make scientists publishing in high impact journals which most of them need to pay. How about this contradictory problem?

Abhi Veerakumarasivam:
You bring up a very good point as we do not think it is quite a contradiction. When you think about the investment in science, what is the science for? What is the accountability to the taxpayers? Is it every piece of information, also the risk of disinformation and misinformation if the scientific information is taken out of the context.
We need to think about where the accountability is and how do we define transparency? Then, we need to be fair to the publishing industry, because the process in which our data and information are being packaged, edited, proof read, peer reviewed; lots of work must be done to make our papers look the way it is, as it goes through all those processes too.

So how can we find the sustainable module? Part of that tricks is, many current funding ecosystems in the last 2-3 years are exist in Indonesia. You are more conscious about the cost of publications. Research is a national agenda, and tax payers' money are being used. So that the cost of publication needs to be optimized, and it can only be optimized if you find a way to take it back nationally, where there is negotiation with key publishers is done at a national government level rather than many small institutions are negotiating, because they do not have the bargaining power. Rather than think they are in conflict, how can we facilitate each agenda? There is still a role for the publication industry. We cannot really rely on a complete open system because there is going to be a lot of corruption of that information and knowledge. So how do you find that balance?

Dasapta Erwin:

Let us absorb more of the activities and resources and do within our range. Let us do it more on a non-profit infrastructure, funded by the government, and based on community activity. Everything related to the peer reviews come from the academic itself, not from commercial infrastructure. They are not paying us to do the peer review, as we do it for them. Why do not we directly give to our colleague? In a community-based peer review system, we have many initiatives that we should actively participate in those initiatives or activities, instead of giving our service to people that do not pay us. Open access should be an ideology, not just about paying prestige journal individually or even national level. So that every time I publish a commercial journal, I also publish a video talking about that, this is our loss by publishing to those infrastructures.

Ashwin Sasongko:

In Indonesia, if the funding comes from the government, you have to do two things: output of your research will be published, and you have to write down the complete research outcomes in a complete report. This will be kept by your institutions and because it is government-funded research, this is open for everyone in Indonesia under the law of public information openness. If you get funding research from the Ministry of Research & Technology, you have to make a publication journal and report to the funding organization, and the report is more complete than the paper that you publish. The report should be kept close if the ministry mentions it is classified.

The problem of green open access is Indonesia has not been fully discussed, because green open access has several operation procedures that you have to follow, and it is not discussed a lot. Perhaps AIPI can organize a discussion later and give the input as advice to the ministry of education.

Question:

In Indonesia, the target is to reach all over Indonesia. However, good internet quality does not reach the whole Indonesia and communication networks are often disrupted. What is the problem?

Ashwin Sasongko:

If you look at the regulations, you have the presidential degree states the quality of access. Indonesia still has not achieved all these targets. We have access in Indonesia from a business connection, the service from Telkomsel or other business companies. We have agreements on what kind of access we will get. Based on that, even in a remote area, ATM or bank machines are provided, and these machines have the operation agreements with telecommunication companies using satellites, so that they have to use their own VPN (virtual private network) and that is expensive. In many area not only remote areas, there are many problems that we cannot receive internet access properly.

Basically, if you buy the access service from Telkomsel and the service is not match to the service level agreement, you can complain to them or change your SIM card to other operators. In the cities, where we have the high rise buildings, many hindrances exist. One operator can have good operation in one area, another operator can be good in another area, because of the building problems. In remote areas, another problem is the hilly areas, so that one village may be good with one operator, another may be good with another operator, because the tower will not be able to reach other village. In this case, my suggestion is to find the best operator you can get in your area.

Mayling O. Gardiner:

Are we talking about our local issue? In Indonesia, we have no problem about open access, practically all journals are open access, but the better scholars are not going to publish here. They want the same ranking on the same criteria with the same measurements. Anne Booth says that open access is all fine and dandy, but she does not think academics should continue to be unpaid free labor. The issue is, until today, the reviewers do not get paid. The journals are expensive but with all that process and all the pressure on open access, the journals have changed their business model. It is not a journal anymore, it is either subscribe or open access, but by article. You can buy open access to an article and a subscribe journal. For people from Indonesia, India, Pakistan, countries of south equator, we do research without grant from all the ones listed before as we do not have those grants. Open access does not mean all free, somebody has to pay for the open access. The journals are happy to receive that because it is money in advance. The authors have to pay the journals to get it published and disseminated as open access. How do we solve that?

Abhi Veerakumarasivam:

What you bring up is in the centre of the problem, which is really affecting this equity and inclusivity agenda where we have to accept there is a big resource gap. To a certain extent, the whole purpose of research has been hijacked by the desire for those high impact papers. It is going to really take a bold decision by governments that maybe can start within this region. If the funding system in each of our countries make a statement that we are no longer going to measure the success of your work purely by the impact factor of your paper, but by its real scientific impact. There will be that change. But until we stop measuring our

scientist using those same benchmarks where there is a conflict of interest, are we doing this for the sake of the impact to the taxpayers, or are we actually going to solve the innovation index or the ranking. At this juncture, we can work on trying to create more responsible scientists, maybe have more advocates like Dr. Erwin who says "I just do what I do and be honest as they can be."

Mayling O. Gardiner:
In Indonesia, promotion is tied to publications, and that is how journals and articles just skyrocketed in the last 4-5 years. So we have a contradiction and at a disadvantage, or maybe it is a regional issue.

Berry Julianto:
At the moment I am a chief editor of Indonesian journal called Hayati. The server is in our institution, so we do not need to pay for the server. For the software, we use an open journal system which is open source. All the employees are paid by the government because most of us are government employees. We do not pay any money to the reviewers too because they review the journals for free. Basically we do not need money to publish a paper, but we still ask the author to pay just for commitment. We do not use the money for anything because all the processes are already being paid.
I am thinking about the business process, which is handled in other cases by other journals which obligate us to pay like Rp30-70 million. I do not understand why they need so much money for that publication, although we still pay for subscription due to reputation and other things. This is also related to the recognition which is still going on in our system that rewards scientists who publish in this kind of journal. The scientific community in Indonesia should be strengthened, so they can develop good journals which can publish their results with a very reasonable price. What do you think about this?

Dasapta Erwin:
It is completely understandable if you draw some money from the authors, but it would be very different if you use the money for profit. What we are talking in here is the ones that convert stakeholders money to shareholders profit, which is our problem and very much an international issue. We should cross out every connecting policy from assessing the research itself with the commercial infrastructure. We must delete all the rankings, indexing, in the regulation. If we can delete that, the problem is solved I think.
Everyone is only following the regulation, which in the power of the policy maker right now, on how brave someone can bail out from the current system. We can start on our regional community here in Asia that has a very similar situation and history, and then move into the international movement. At this moment, a researcher who we think is the smartest one on the planet, he still has a contract to publish their research. He needs publishers just to publish and put their paper online, which of course they can do it by themselves with repository and green OA mode.

Mayling O. Gardiner:
What do you do about promotions? Promotions are tied to publications.

Dasapta Erwin:
This is all at the hands of the policy maker. How brave they can bail out from the current system, intentionally.

Berry Juliandi:
Also from the chat, promotion should be done through peer review. Currently the system is regulated by the Ministry of Education, and it is easy to replace. If the Minister of Education said that we can do our promotion by peer review, it can be done in one night. There will be peer review among similar or higher colleagues in the reputation.

Dasapta Erwin:
Let us change the requirement. Several presenters, also from UNESCO, suggest trying to dismantle the research or publication itself. Whether they promote open data, open research, and open methods, let us value those things and not the end result. If we change the criteria to the process, the research itself can still go on and people are still doing research and still publish, but we value the process, not the end point.

Berry Juliandi:
In 2001, when I first learned about publication, all I think is who will read my article. I emailed one of the colleagues in our field, and asked what kind of journal that you read regularly. He mentioned one particular journal name that he subscribed, and I chose that journal to publish my article because I want him to read my article. So, no ranking, metrics, or other considerations. At that time, I did not need promotion because I was not a lecturer. Maybe we should push people to publish just to share their findings and discuss the findings, and to find the correct answer of the problem that he/she wrote in that paper, not to chase the ranking.

Wrap-up and
Closing Webinar

16.00 - 16.10

WRAP UP & LAST COMMENT

- The openness, or how the data is shared, should be related to the regulation. For example, in Indonesia the law obligates researchers to open this kind of data to the public. Maybe other countries have different regulations, but it is agreed to discuss more about this and to find solutions through these series of webinars. It is agreed that open access and open science are important and need some regulation or share commitment, how to reach the merit and minimize the negative reeks of this open access and open sciences.

- The speakers feel that something is wrong in the system that need to do something to improve the ecosystem of research and publication. It is supposed to be for the benefit of humankind, how research will benefit the community. It has to be designed the ecosystem, the accountable researcher for conducting research that benefits the people and community. At the same time, the researcher should be respected for his/her achievement, not only through ranking or index, etc.; but more on how much impact to the researcher to improve the condition of humankind development.

- By the end of the 3rd webinar, a policy, suggestion, or recommendation to the decision makers, should be proposed, to make sure that open science is a must. It is very important for the benefit of people of the community, not only for the researchers.

Thank You and See You
in the next Webinar Series 3

**ASSA-AIPI International Webinar
on Digital Scholarly Communication Series 3:
"Publication of Digital Scholarly Communication "
19 May 2021|13:00-16:00 |Jakarta Time**

Main Agenda of International Webinar

01   **Greetings and Keynote Speech, Opening**
President of AIPI, President of AASSA, and Executive Secretary of
Economic and Social Commission for Asia and the Pacific (ESCAP) -UN

02   **Discussion Session 1**
Moderator: Dr. Ashwin Sasongko – Chairman Research Center for ICT
Business and Public Policy of Telkom University

03   **Discussion Session 2**
Moderator: Prof. Sri Adiningsih – Professor in Faculty Economics and Business,
Gadjah Mada University / Fellow of Indonesian Academy of Sciences

04   **Wrap-up Webinar Series 3rd**
Moderators
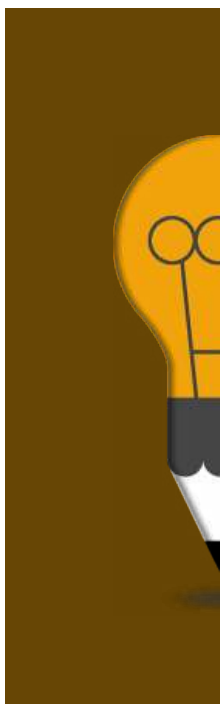
Main Agenda of International Webinar

05   **Recommendation of Webinar Series**
Prof. Mayling Oey-Gardiner

06   **Closing Webinar Series**
President of AASSA and President of AIPI

Terms and Conditions
AASSA -AIPI International Webinar

- **The AASSA - AIPI Organizing Committee is freed from all legal responsibilities for all legal consequences that occur for the virtual services provided.**

- **The participants are deemed to know and agree to personal responsibility for any consequences arising from the choice provided by the Organizing Committee.**

Terms and Conditions
AASSA -AIPI International Webinar

01 The entire program will be recorded. The Webinar can be followed by the Zoom App. or You Tube.

02 The webinar will start at 13.00 Jakarta Time. Thank you to the participants who have registered for this webinar.

03 Participants must use their real names and institution.

04 The microphone function is muted when the speaker starts the presentation.

05 Question & Answer Sessions are facilitated through the Q&A Room, and/or by direct interaction through the rise hand menu.

06 The Photo Sessions will be carried out under the command of the officer.

Opening Greetings and Keynote Speak

01

Welcoming Remarks
Prof. Satryo Soemantri Brodjonegoro
President of Indonesian Academy of Sciences (AIPI) /
Vice President of AASSA

02

Congratulatory Remarks
Prof. Yoo Hang Kim
President of Association of Academies and Societies of Sciences
in Asia (AASSA)

03

Keynote Speech and Opening
Prof. Armida Salsiah Alisjahbana
Under-Secretary-General of the United Nations, Executive Secretary
of Economic and Social Commission for Asia and the Pacific (ESCAP)

Webinar Series 3: "Publication and Dissemination of Digital Scholarly Communication"

Keynote Speech and Opening

13.30 - 13.40

Keynote Speech and Opening

AIPI

Prof. Armida Salsiah Alisjahbana

Under-Secretary-General of the United Nations & Executive Secretary of Economic and Social Commission for Asia and the Pacific (ESCAP)

Professor of economics at the Department of Economics, Padjadjaran University

Armida has a long and distinguished academic and public service career. She was Minister of National Development Planning and the Head of the National Development Planning Agency (BAPPENAS) at 2009-2014

Executive Secretary of ESCAP fellow of the Indonesian Academy of Sciences

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

Ms. Armida Salsiah Alisjahbana
Under-Secretary-General of the United Nations
and Executive Secretary of ESCAP

Keynote remarks (as prepared for delivery)
International Webinar on Publication and Dissemination of Digital Scholarly Communication

Association of Academies and Societies of Sciences in Asia
(AASSA), Indonesian Academy of Sciences (AIPI),
and Inter Academy Partnership (IAP)
Academy of the Social Sciences in Australia (ASSA)

19 May 2021, 13.30-13.40 hrs
ZOOM

Yang saya hormati Professor Satryo Soemantri Brodjonegoro, President of the Indonesian Academy of Sciences,

Professor Yoo Hang Kim, President of Association of Academies & Societies of Sciences in Asia (AASSA),

Distinguished Speakers, Moderators, Participants,
Ladies and gentlemen,

It is my pleasure to address this International Webinar on the topic of *Publication and Dissemination of Digital Scholarly Communication.*

There is no doubt that the COVID-19 pandemic is still ravaging across countries in the world including our part of the region, in Asia and the Pacific.

We are witnessing resurgence of local transmission across several large developing and lower-middle income countries due to new variants, which are more infectious and fatal.

The pandemic has triggered one-in-a-century catastrophe for our humanity, widening development fault lines through its extremely disastrous impact on the most vulnerable groups of our societies.

The health, educational and economic crisis are negatively impacting human capital formation and productivity gains, exacerbating poverty, increasing inequality, and reversing hard-won development gains over the decades.

The pandemic has revealed that policymakers must focus on i) public health management in scaling up the provision of vaccines, therapeutics and strengthening the health care system, ii) recover stronger through inclusive, resilient and sustainable approaches to development policies and programmes.

The promotion of evidence-based policymaking is equally important through sharing of good practices, lessons learned, policy recommendations, technical assistance and capacity development at various levels of governments and scholar's engagement.

The pandemic has also turned many aspects of our physical lives into a virtual reality and has accelerated a much-needed digital transformation.

The growing importance of digitalization and technology-based innovations are rapidly shaping our interactions and dissemination of knowledge across borders.

Scaling up digital plans is now a must-to-do government investment for enhancing a better crisis preparedness and increase e-resilience in the future.

Our societies have always found new ways of transforming and navigating in times of crises, and this ongoing crisis is not an exception.

We need to constantly reinvent ourselves and turn crisis into an opportunity including by providing fast and reliable linkage between research and evidence-based policy making.

Distinguished Participants,

It is in this context, I would like to highlight three broad priorities to effectively disseminate scholarly products for increasing policy impacts.

First, we need to engage with scholars to promote policy research.

Broadly speaking, by using UN/ESCAP as good examples, we encourage scholars and experts to join our meetings to cross-fertilize ideas and share their views on addressing policy challenges, sharing best practices across countries and informing lessons learnt on policy areas.

These issues are ranging from macroeconomic policy responses to shocks, global and regional impacts of economic policy spillovers, and national fiscal and monetary policy priorities.

In most of the regional knowledge products, to ensure the rigor and relevance, we have continuously engaged with scholar communities across the Asia-Pacific region and beyond.

For example, to peer review the initial draft of the 2021 edition of Economic and Social Survey of Asia and the Pacific, which is ESCAP's annual flagship publication, we organized an expert group meeting in 2020.

Last month, as part of outreach activities of the 2021 Survey, in collaboration with the Indonesian Economist Association (ISEI), we jointly organized an international seminar to discuss the main messages of the report.

The discussions with scholars also highlighted the need to underscore ambitious and targeted policy measures to ensure that recovery from the pandemic is robust and inclusive, and that a more resilient and sustainable future emerges from this crisis.

In addition to scholars from several Asia-Pacific countries, the seminar was attended by Indonesia's Central Bank Governor and a Deputy Minister on Economic Planning.

This is an example of how ESCAP's analytical work, which benefitted from technical discussions with scholar communities, was fed into policymaking process.

Second, we have to develop and support online communities of knowledge with scholars and research institutes.

With the current COVID-19 pandemic, all UN/ESCAP knowledge sharing activities have become fully digital, making them available to a much wider audience.

The digital platform brings researchers and policy makers closer together, as they often get to know each other through participation in online workshops.

Training materials are also now systematically turned into self-paced e-learning courses accessible to everyone for free, with certificates being issued to those who successfully complete the online programmes.

The existence of an online community of knowledge makes it much easier for institution such as us to access the latest knowledge created by members and use it to formulate policy recommendations for countries in Asia and the Pacific.

May I now give you a few more examples. On trade related research, through the Asia-Pacific Research and Training Network on Trade

(ARTNeT), we have facilitated research and capacity building on trade-related issues, relying heavily on digital communications.

In another instance, we have also co-organized the very first virtual Policy Hackathon with a wide range of international institutions (WTO, UNCTAD) as well as civil society (CUTS) and academic institutions (e.g. the Singapore Management University).

As a result, we have published online, the best written contributions, in a repository and the top 12 author-contributors were invited to webinar series for policy makers.

Importantly, some scholar's research papers were published in peer-reviewed journals since this initiative. The material has also now been turned into a Handbook for policy makers and negotiators, with virtual workshops to be organized later this year.

Similarly, on social development related research, since 2020, we embarked on a collaborative research with the Institute of Development Studies (IDS)-UK to examine the gender aspects of the policy responses to COVID-19 pandemic, and propose a range of policy measures with a view to reduce and redistribute the unpaid care work.

The research team have completed the Asia-Pacific overview and are now conducting an in-depth analysis of the situation in ASEAN countries, identifying good practices and developing tailored policy recommendations.

All discussions and consultations with the scholars and the wider research community, best practice networks, government counterparts, etc. have taken place virtually, with digital technologies assisting the dissemination of knowledge, e.g. pre-recorded presentation for expert group meetings; presentations provided over the Zoom platform for Ministries of Women in ASEAN countries and other counterparts.

We expect to complete this action-oriented research and publication by October 2021, which will be disseminated online and through digital social media.

On the Disaster Risk Reduction research and policy formulation, we collaborated with Indian Government think tank, along with BIMSTEC Climate and Weather Centre and SAARC HIV and Tuberculosis Centre to organize a series of digital scholarly communications on managing risks to address the crisis of cascading disasters that are impacting SDG progress.

More specifically, in consultation with the Inter Academy Partnership (IAP) network, we identified scientists to share their expert opinion in several of the SDG roundtables, representing the academic community.

These examples are important initiatives to develop and support online communities of knowledge with scholars and research institutes to chart a new path to recover better together in Asia and the Pacific.

Third, there is a need to build capacity and access data and information in a systematic manner, especially for the least developed countries and lower middle-income countries.

We are constantly interacting with scholars to help them access cross-country data and information collected by UN/ESCAP on national regulations and policies that allow to raise their quality of research outputs.

These data sets are essential tools to the analysis of extreme poverty and inequalities. Furthermore, using big data is also providing new insights into public health situation and economic benefits on a real time basis.

Furthermore, with good data infrastructure and skills, scholars from several developing countries are facilitating the formulation of sound policymaking in times of COVID-19 pandemic.

However, in many least developed countries and lower middle-income countries, due to lack of basic ICT infrastructure and under development of other digital services, the government's policymaking opportunities and impacts have been underutilized.

For example, we are working closely with research scholars, academics and related stakeholders in improving the quality of statistics in areas such as population and social statistics, disaster-related statistics, agricultural and rural statistics, and gender in environmental statistics.

So, these interactions with network of scholars and institutions have been instrumental in strengthening statistical capacity to produce and disseminate data and information which is the foundation of any good evidence-based policy making.

Distinguished Participants,

In closing, digital communication provides enormous - and still mostly untapped- potential for enhancing scholar-policy maker collaboration and evidence-based policymaking.

I am very much encouraged to see that the engagement of scholars is taking shape in a more strategic manner.

Through UN/ESCAP regional platform, we have been fortunate to regularly interact with scholars to scale up knowledge and research support for policymakers in countries across Asia and the Pacific.

I wish you well in your deliberations.

Thank you very much.

Discussion Session 1

MS1 **Dr. AshwinSasongko** – Chairman Research Center for ICT Business and Public Policy of Telkom University
Moderator for Discussion Session 1

01 **Prof. James Fox** – Int. Secretary of the ASSA / President AASSREC
"Publishing To The World, Monitoring The Response: Lessons from the ANU Press"

02 **Dr. BerryJuliandi** – Indonesian Academy of Young Scientist / Dean of Faculty Mathematics and natural Sciences, IPB University
"Future of Scholarly Publishing and Scholarly Communication: Report of the Expert Group to the European Commission"

03 **Ivonne Kristiani M. Phil.** – Project Coordinator for Open Data Projects at Goethe-Institut Jakarta
"Beyond Open Access: Participatory Production of Scientific Knowledge"

Discussion Session 1

Dr. Ashwin Sasongko

✓ Ashwin Sasongko is an Executive Member, Indonesian National Information and Communication Technologies (ICT) Council.
✓ His current activity is as chair of ICT Commission of the National Research Council, executive member of the National ICT Council and ICT Governance lecturer at Telkom University, provide opportunities to use his rich experiences to improve ICT public policies and regulations.
✓ Sasongko is also involved with various organizations, in helping to revise ICT regulations, many of those he helped to set up during his time as senior government executive.
✓ Ashwin Sasongko has a strong background in ICT from his education and industrial experiences. His appointment in various senior government executive positions has given him experience in ICT public policy, regulations and governance. His last Government executive position until November 2013 was the Director General of Informatics Application at the Ministry of Communication and Information Technology, reporting directly to the Minister.

Principle Researcher from Indonesian Institute of Sciences (LIPI)

Ashwin Sasongko has a long and distinguished researcher and public service career.

Lecturer / Chairman of Research Center for ICT Business and Public Policy Telkom University

Prof. James Fox

- ✓ **International Secretary of the Academy of the Social Sciences in Australia (ASSA), and President, Association of Asian Social Science Research Councils (AASSREC)**
- ✓ **Director of the Research School of Pacific Studies, ANU (1999-2007), Co-Founder of ANU Press (2003)**
- ✓ **Recent Open Access Publications through ANU Press:**
  - • **Explorations in Semantic Parallelism (2014)**
  - • **Master Poets, Ritual Masters (2016)**
  - • **Expressions of Austronesian Thought and Emotions (2018)**
  - • **Austronesian Paths and Journeys (2021)**

Emeritus Professor in Social Anthropology of Australian National university, Adjunct Professor, Antropologi, UI

D. Phil. 1968 from Oxford University in Social Anthropology

International Secretary of the Academy of the Social Sciences in Australia (ASSA) / President, Association of Asian Social Science Research Councils (AASSREC)

PUBLISHING TO THE WORLD, MONITORING THE RESPONSE:
Lessons from the ANU Press

This presentation tells the story of the ANU Press which has become the world's largest open access University Publisher with 6.1 million annual downloads of its academic monographs in 2020. A quest for quality with strong peer-review and with an initial focus on areas of research expertise at the ANU, ANU Press continues to develop means of monitoring where its books are downloaded and by whom to assess the impact of its publications. The goal is to provide appropriate feedback to its authors on their publications as part of a global research dialogue.

PUBLISHING TO THE WORLD,
MONITORING THE RESPONSE:
Lessons from the ANU Press

James J. Fox

ANU PRESS

ANU PRESS (EST. IN 2003)

One of the
LARGEST OPEN-ACCESS UNIVERSITY PRESS

PUBLISHES JOURNALS AND MONOGRAPHS (+/- 800)

5.1 MILLION DOWNLOADS MONOGRAPH DOWNLOADED
IN 2020
from every country in the World (except N. Korea)

Small Publishing 'Engine' with 22 Editorial Committees

WHAT HAPPENS WHEN AN ANU PRESS BOOK IS PUBLISHED:

- Placed on the ANU server for direct downloads
- Lodged on JSTOR and other open access hubs (Oapen, ProQuest): Can be downloaded directly
- Distributed to Libraries around the world with Catalogue Information: Can be placed on other university servers and downloaded
- Open to file-sharing: ResearchGate, Academia
- Authors can add 'Orchid' No. linkage
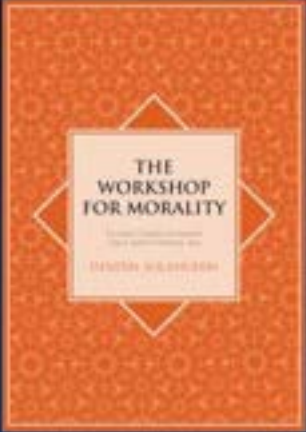
MONITORING ANALYTICS

- Internal ANU Program for monitoring downloads
- Google Analytics for identifying global distribution
- JSTOR Figures for additional downloads per book
- ALTMETRICS provides a variety of social media data

ANU PRESS PUBLISHES TO THE WORLD BUT CAN HARDLY REACH INDONESIA

- Less than 1% of ANU Press publications are downloaded in Indonesia

- Few Indonesian libraries have downloaded ANU Press books to their catalogues

- Our Indonesian authors do not gain recognition on SINTA

CONCLUSION

OPEN ACCESS SCHOLARLY COMMUNICATION:

COMPLEX SYSTEM IN RAPID CHANGE

Different Models and Standards, Different National Agendas, Different Data Analytics
All shaped by Strong Competition from Commercial Interests:

A Galaxy of Parallel 'Open-Access' Worlds
To Be Explored

OPEN TO THE WORLD OF OPEN ACCESS

EXPLORE ALTERNATIVE DATA ANALYTIC SYSTEMS

Scopus is one of several commercial data analytic systems: Clarivate ('Web of Science') is another...

DIRECTORY OF OPEN ACCESS BOOKS
DIRECTORY OF OPEN ACCESS JOURNALS

LOOKING TO THE FUTURE

THE WORLD OF OPEN ACCESS IS CHANGING RAPIDLY AND DRAMATICALLY

ANOTHER WEBINAR LIKE THIS IN THREE YEARS WOULD LOOK AT A RICHER, MORE DIVERSE WORLD OF PUBLISHING

Discussion Session 12

Dr. Berry Juliandi

- ✓ Berry Juliandi is Dean of the Faculty of Mathematics and Natural Sciences, Bogor Agricultural University (2021-2026).
- ✓ He is active as a member of the Indonesian Academy of Young Scientists (ALMI) and served as Secretary General for the 2018-2020 period.
- ✓ Berry has been selected to be a member of ALMI since 2016 after being nominated based on his academic track record, international publications, and his achievements as a fellow of Kavli Frontiers of Science (2012 and 2017).
- ✓ He has research interests in the fields of Epigenetic regulation of neural stem cell differentiation, Neurogenesis and memory, Morphometrics, and Human biology. His scientific work has been published in various scientific journals.

Dean of Mathematics and Natural Science Faculty, IPB University

Ph. D. from Nara Institute of Science and Technology, Japan

Secretary General of the Indonesian Academy of Young Scientists (ALMI) in 2018-2020 and a fellow of ALMI since 2016

Future of Scholarly Publishing and Scholarly Communication: Report of the Expert Group to the European Commission

The Expert Group on the Future of Scholarly Publishing and Scholarly Communication was set up to support the policy development of the European Commission on Open Science. The Expert Group was asked to assess the current situation with regard to scholarly communication and publishing and to establish general principles for the future. This report analyses the recent past and present states of scholarly communication and publishing. It proposes ten principles through which a vision for scholarly communication is shaped over the next 10-15 years. These principles also serve as a way to examine shortcomings of the current scholarly communication and publishing system. The report then offers recommendations to key actors in the scholarly communication system about the best ways to address these shortcomings. The discussion in the report focuses mainly on journals and articles, although books and monographs are also considered, as well as the significance of new and emerging forms of scholarly communication. The perspective for improvements is researcher-centric, with research contributions considered as a public good. Locating research within society at large, and taking into account the needs and possibilities of those who are not professional researchers – the majority of people – is another fundamental reference point for this report.

HAYATI
Journal of Biosciences

Berry Juliandi
(Chief Editor of HAYATI J Biosci)

+++ & Future of Scholarly Publishing and Communication
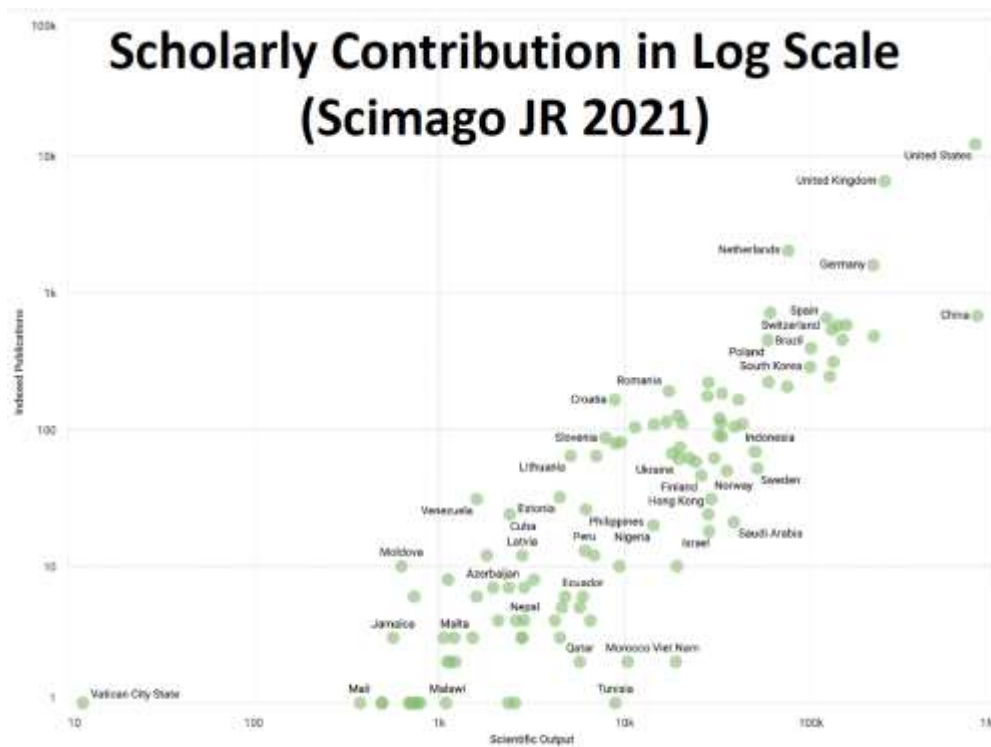
Documents
(Scimago JR 2021)
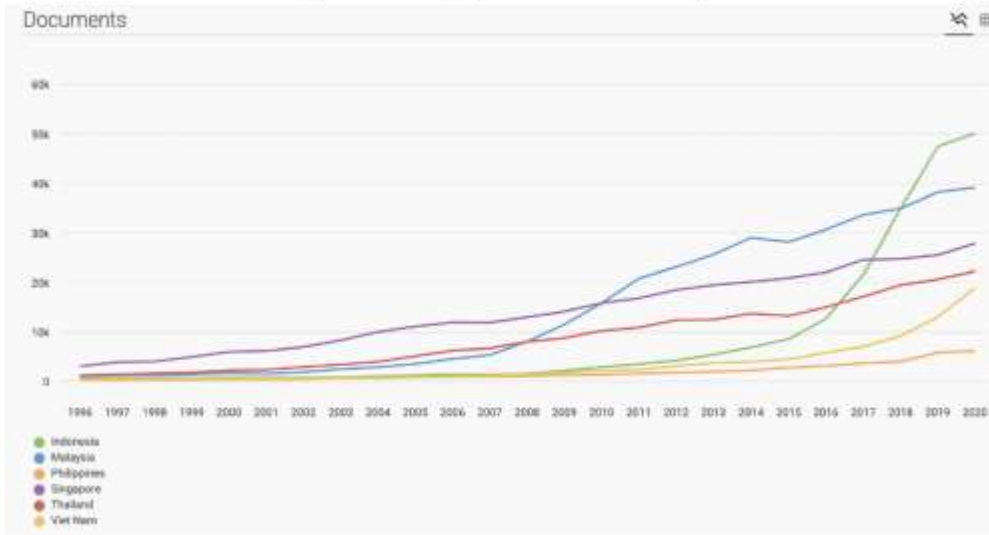
% Open Access
(Scimago JR 2021)
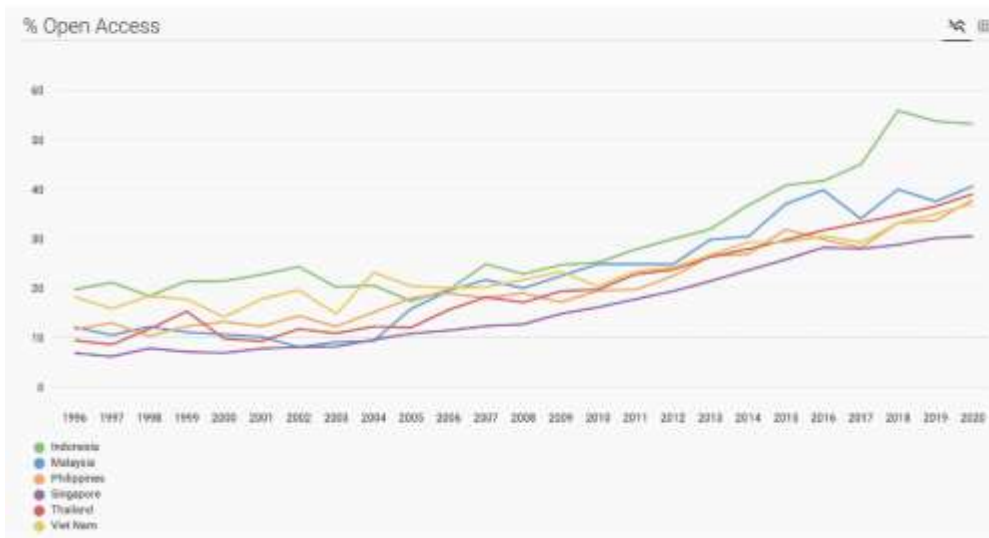
Scientific Journals with Indonesian publisher

Scopus

https://www.scopus.com/sourceid/21100824972

Scimago JR

HAYATI Journal of Biosciences 🔓

https://www.scimagojr.com/journalsearch.php?q=21100824972

Scimago JR

https://www.scimagojr.com/journalsearch.php?q=21100824972

Scimago JR

SINTA

https://sinta.ristekbrin.go.id/journals/detail?id=683

HAYATI
Journal of Biosciences

- ### Vision:
  Becoming an Indonesian journal of tropical biosciences with international reputation

- ### Mission:
  To promote scientific achievement of Indonesian researchers to the international community by dissemination of new and high quality research in the field of tropical biosciences

- ### Publisher:
  Institut Pertanian Bogor (IPB) and Perhimpunan Biologi Indonesia (The Indonesian Biological Society)

Journal Scope

HAYATI Journal of Biosciences (HAYATI J Biosci) is an international peer-reviewed and open access journal that publishes significant and important research from all area of biosciences fields such as biodiversity, biosystematics, ecology, physiology, behavior, genetics and biotechnology. All life forms, ranging from microbes, fungi, plants, animals, and human, including virus, are covered by HAYATI J Biosci.

Endemic species:
Orang Utan

Identification of Diagnostic Mitochondrial DNA Single Nucleotide Polymorphisms Specific to Sumatran Orangutan (*Pongo abelii*) Populations

Puji Rianti, Dyah Perwitasari-Farajallah, Dondin Sajuthi, Joko Pamungkas, Alexander Nater, Michael Krützen

Endemic species:
Komodo dragon

Molecular Sex Determination of Captive Komodo Dragons (*Varanus komodoensis*) at Gembira Loka Zoo, Surabaya Zoo, and Ragunan Zoo, Indonesia

SRI SULANDARI, MOCH SAMSUL ARIFIN ZEIN, EVY AYU ARIDA, AMIR HAMIDY

Research Center for Biology, The Indonesian Institute of Sciences (LIPI), Cibinong Science Center, Jalan Raya Jakarta Bogor, Km. 46, Cibinong 16911, Indonesia

Captive breeding of endangered species is often difficult, and may be hampered by many factors. Sexual monomorphism, in which males and females are not easily distinguishable, is one such factor and is a common problem in captive breeding of many avian and reptile species. Species-specific nuclear DNA markers, recently developed to identify portions of sex chromosomes, were employed in this study for sex determination of Komodo dragons (*Varanus komodoensis*). Each animal was uniquely tagged using a passive integrated micro-transponder (TROVAN 100A type transponders of 13 mm in length and 2 mm in diameter). The sex of a total of 81 individual Komodo dragons (44 samples from Ragunan zoo, 26 samples from Surabaya zoo, and 11 samples from Gembira Loka zoo) were determined using primers Ksex 1Fer and Ksex 3rev. A series of preliminary PCR amplifications were conducted using DNA from individuals of known sex. During these preliminary tests, researchers varied the annealing temperatures, number of cycles, and concentrations of reagents, in order to identify the best protocol for sex determination using our sample set. We thus developed our own PCR protocol for this study, which resulted in the amplification of band A in females and band C in males. Results from band B, however, turned out to be non-determinative in our study because, for females, band B was not always visible, and for males sometimes a similar, but lighter band was also amplified, making interpretation difficult. In this study, sex determination was based mainly on the difference in size between the female-specific 412 bp fragment and the homologous, longer fragment amplified for males.

Keywords: captive breeding, sex, komodo dragon, molecular sexing, PCR

Endemic species:
Sumateran Rhinoceros

Assessment of Fertility Status in the Male Sumatran Rhino at the Sumateran Rhino Sanctuary, Way Kambas National Park, Lampung

MUHAMMAD AGIL[1]*, IMAN SUPRIATNA[1], BAMBANG PURWANTARA[1], DEDI CANDRA[2]

[1]Department of Clinics, Reproduction and Pathology, Faculty of Veterinary Medicine, Bogor Agricultural University, Darmaga Campus, Bogor 16680, Indonesia
[2]Suaka Rhino Sumatera, Way Kambas National Park, Lampung, Indonesia

Sumatran rhino is the most endangered rhino species. Its population is estimated less than 300 individuals remaining in the wild with highly declining rate to 50% in the last 15 years. The number of male rhinoceroses in the captivity are very few, therefore the assessment of its fertility is very important in order to support the breeding success since the captive breeding success is very poor. The objectives of this study were (i) to determine the male reproductive status, (ii) to establish a reliable semen collection method, and (iii) to assess semen parameters of the fresh collected sample. Three methods of semen collection were examined to determine its fertilizing potential, i.e. (i) stimulated combination of artificial vagina (AV), penile massage (PM) and accessory gland massage (AGM); (ii) AV and PM; and (iii) only with PM. The first method gave the best result with an ejaculation success of 85.71% (6/7, n = 7). The second and third methods obtained an ejaculation success rate of 50% (2/4, n = 4) and 25% (1/4, n = 4), respectively. The collected ejaculation had a volume of 1.1-12.4 ml with whitish to cream-turbid colour and pH 6.00-8.00. Sperm concentration was (105-335) x 10⁶ sperm/ml. The quality of the sperm was low with only approximately 3% of them moved forward slowly. Approximately 86% of the spermatozoa were immature (pro. cytoplasmic droplet) with head (macro-, microcephalic) and tail abnormalities (broken tail). Semen quality increased after several collections and the amount of live sperm count decreased up to 3%.

Indonesia's ancient human:
Homo floresiensis

Figure 1. Homo floresiensis LB1 float 1 skull (courtesy of Debbie Argue, School of Archaeology and Anthropology, Australian National University).

The *Homo floresiensis* Controversy

COLIN GROVES

School of Archaeology and Anthropology, Building 14, Australian National University, Canberra, A
Phone: 62.61252588, Fax 62.61252713. E-mail: colin.groves@anu.edu.au

A completely new and unexpected quasi-human species, *Homo floresiensis*, nicknamed the Hob 2004 from Liang Bua, a cave in Flores. Like many important new contributions to the human fos many commentators refused to believe that a new species had been discovered, and the type specime a pathological modern human, usually as a microcephalic dwarf. There is no substance to these c shows that *Homo floresiensis* is not only a genuinely new species, but that its closest affinities lie African species such as *Homo habilis*, so that it documents an earlier dispersal of hominins from Afr been surprised.

Key words: Flores Hobbit, *Homo floresiensis, Homo erectus, Homo habilis*, microcephaly
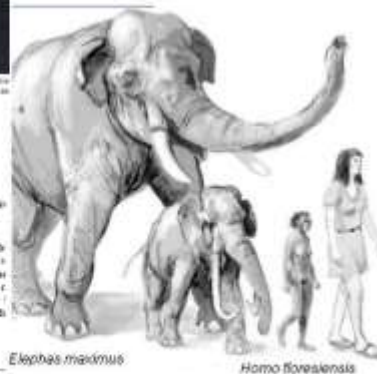
HISTORICAL BACKGROUND   PALAEOANTHROPOLOGICA

Elephas maximus

Homo floresiensis

Stegodon florensis insularis   *Homo sapiens sapiens*

Food: Rice

Panicle Length and Weight Performance of F3 Population from Local and Introduction Hybridization of Rice Varieties

ANGELITA PUJI LESTARI[1], SUWARNO[2], TRIKOESOEMANINGTYAS[1], DIDY SOPANDIE[3], HAJRIAL ASWIDINNOOR[3]

[1]Graduate School of Department of Agronomy, Faculty of Agriculture, Bogor Agricultural University, Darmaga Campus, Bogor 16680, Indonesia
[2]Muara Experimental Farm, Indonesian Center for Rice Research, Jalan Raya Ciapus 25A, Bogor 16119, Indonesia
[3]Department of Agronomy, Faculty of Agriculture, Bogor Agricultural University, Darmaga Campus, Bogor 16680, Indonesia

Plant breeding program consists of establishment of the population, selection, and evaluation. The study aimed to observe the variability of yield components, the heritability, and the distribution of the yield component characters in the F3 populations. The experiment was conducted at Muara Experimental Farm Bogor, from April to August 2012 on Latosol soil. The F3 populations derived from crosses of Bintang Ladang x U52, Gampai x IR77674, and Pragol x Asahan and their parental were used as plant materials. Twenty one-day-old seedlings from each population were planted in plots of 2 x 12 m, with planting space of 20 x 20 cm and 3-5 seedlings per hole. Panicle length and weight were observed on 300 randomly selected plant samples from each population. The results showed that there was a variation of agronomic characters among genotypes. The heritability of characters, the panicle length and weight was low to high. Panicle length and weight were controlled by many genes with additive gene action in the Gampai x IR77674 derived population, while panicle weight was controlled by few genes with complementary epistatic additive gene action in both Bintang Ladang x U52 and Pragol x Asahan derived populations. The more genes controlling a character, the more distribution classes formed and the greater variance among genotypes.

Food: Tempe

Comparison of DNA Extraction Methods for Microbial Community Analysis in Indonesian Tempe Employing Amplified Ribosomal Intergenic Spacer Analysis

CECILIA ANNA SEUMAHU[1,2], ANTONIUS SUWANTO[2]*, IMAN RUSMANA[1], DEDY DURYADI SOLIHIN[1]

[1]Department of Biology, Faculty of Mathematics and Natural Sciences, Bogor Agricultural University, Darmaga Campus, Bogor 16680, Indonesia
[2]Department of Biology, Universitas Pattimura, Jalan Ir. M. Putuhena Poka-Ambon 97233, Indonesia

Tempe fermentation involved complex microbial communities which are only revealed partially through culture dependent methods. Culture-independent methods would be potential to unravel this complex microbial fermentation. Appropriate DNA extraction is an essential tool to obtain reliable data from culture independent method. In this study, we employed two commercial DNA extraction methods to find the best one for microbial community characterization employing amplified ribosomal intergenic spacer analysis (ARISA). Our result

Food: Banana

Genetic Diversity of *Musa balbisiana* Colla in Indonesia Based on AFLP Marker

FAJARUDIN AHMAD[1,2], RITA MEGIA[1], YUYU SURYASARI POERBA[3]

[1]Department of Biology, Faculty of Mathematic and Natural Science, Bogor Agricultural University, Darmaga Campus, Bogor 16680, Indonesia
[2]Research Center for Biology, Indonesia Institute of Science (LIPI), Jalan Raya Jakarta Bogor Km. 46, Cibinong 16911, Indonesia

Musa balbisiana Colla, known as Pisang Klutuk/Pisang Batu, is important for banana breeding program due to its B genome and often considered to be resistant to pest, disease and drought. Banana is a big and tall herb up to 7-9 m in height. The study was conducted to assess genetic diversity of 21 accessions of *M. balbisiana* cultivars/varieties from Indonesia based on Amplified Fragment Length Polymorphism (AFLP) markers in order to provide basic information to support banana breeding program. Analyses of similarity index of Nei and L1 and clustering based on UPGMA was conducted using NTSYS program. Principal Component Analysis (PCA) was conducted by MINITAB 14. Twenty two primer pairs of AFLP markers produced 480 AFLP bands varying from 51-3206 bp in size and 46.38% of the AFLP bands were polymorphic. Genetic diversity among the 21 accessions of *M. balbisiana* was 13.8%. The genetic diversity of wild *M. balbisiana* was 12.9%, higher than the genetic diversity of cultivated *M. balbisiana* which was 11.5%. Cluster analysis based on UPGMA suggested that wild *M. balbisiana* and cultivated *M. balbisiana* could not be separated into different clusters. Both cluster analysis and PCA produced the same three groups of the accessions. The PCA analyses showed that 17 AFLP bands were responsible for the grouping.

Keywords: amplified fragment length polymorphism (AFLP), *Musa balbisiana* Colla, genetic diversity, Indonesia

Marine and Fisheries: Coral

Original research article

The Distribution and Abundance of Black Band Disease and White Syndrome in Kepulauan Seribu, Indonesia

Ofri Johan,[1,2*] Dietriech Geoffrey Bengen,[2] Neviaty Putri Zamani,[2] Suharsono,[3] Michael John Sweet[4]

[1]Research and Development Institute for Ornamental Fish Culture, Jl. Perikanan No. 13, Pancoran Mas, Kota Depok, Jawa Barat 16436, Indonesia
[2]Department of Marine Science and Technology, Faculty of Fisheries and Marine Science, Bogor Agricultural University, Bogor, Indonesia
[3]Research Center for Oceanography, Indonesian Institute of Science, Jakarta, Indonesia
[4]Environmental Sustainability Research Centre, College of Life and Natural Sciences, University of Derby, Derby, DE22 1GB, UK

ARTICLE INFO

ABSTRACT

Coral diseases that have emerged since the early 1970s have caused significant regional ecological impacts. However, there has been a paucity of research into coral disease in South East Asia, including Indonesia. This study provides baseline coral disease data in the Kepulauan Seribu Marine National Park. In this study we show a positive correlation between overall coral cover and the character reef building coral blend per spp. and found two main diseases, black band disease (BBD) and WS, were highly prevalent throughout all reefs. Based on spatial location, the highest abundance of BBD (0.08 col./m²) was found at sites nearer (zone 1) to the mainland, whilst for WS (0.05 col./m²) highest abundance was found at middle sites (zone 2). According to the temporal data, the highest abundance of BBD (0.77 col./m²) was found during the transition period (between wet and dry seasons), whereas for WS higher abundance occurred within the dry season (0.07 col./m²). There was a significant difference in disease abundance among seasons which was correlated with increasing temperature and light intensity along with variations in total organic matters, nitrite and phosphate levels. Moreover, the middle sites experienced additional stress from the waste material originating from the mainland.
Copyright © 2015 Institut Pertanian Bogor. Production and hosting by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Marine and Fisheries:
Common Carp

....etc

....etc

Organization :
Commitment of the team

1. Publisher
2. Chief Editor
3. Managing Editor
4. Editorial Board
5. Technical Editor
6. Finance/Treasurer
7. Business Manager
8. Administration/Secretariat
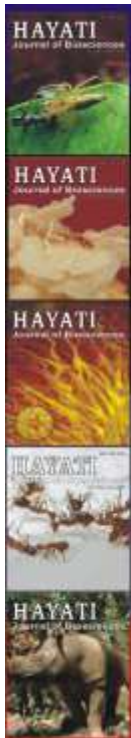
Publisher:

☐ Department of Biology, FMIPA-IPB (since 1994)

☐ The Indonesian Biological Society (PBI) (since 2000)

(Since 2009 → Charter of PBI)

Managing Editor

– Ikin Mansjoer	1994 - 1995
– Muhammad Jusuf	1995 - 2000
– Dede Setiadi	2000 - 2004
– Bambang Suryobroto	2004 - 2007
– Ence Darmo Jaya Supena	2008 – 2011, 2017-now
– Rika Raffiudin	2011 – 2013
– Utut Widyastuti	2013- 2017

Chief Editor

– 1994 – 2004	: Agustin W. Gunawan
– 2004 – 2007	: Rika Raffiudin
– 2008 – 2013	: Iman Rusmana
– 2013 – now	: Berry Juliandi

Department of Biology

Short history

1994-2007: Bahasa and English
2008-now: full English
2009-now: CrossRef (2009), DOAJ (2010), CABI (2011), EBSCO (2012), Agricola (2013), ProQuest (2013), Elsevier & Science Direct (2015), dan SCOPUS (2017)

Editorial Board = 30 scientists
60% (18) is from abroad: Japan (8), Australia (4), USA (3), France (2), and UK (1)
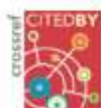
ELSEVIER

? SEARCH

HAYATI Journal of Biosciences

Editor-in-Chief: Berry Juliandi
View Editorial Board

Open Access

ISSN 1978-3019

Guide for Authors
Submit Your Paper
View Articles

Copyright © 20XX Institut Pertanian Bogor. Production and hosting by Elsevier B.V.

Peer review under responsibility of Institut Pertanian Bogor.

HAYATI Journal of Biosciences (HAYATI J Biosci) is an international peer-reviewed and open access journal that publishes significant and important research from all area of biosciences fields such as biodiversity, biosystematics, ecology, physiology, behavior, genetics and biotechnology. All life forms, ranging from microbes, fungi, plants, animals, and human, including virus, are covered by HAYATI J Biosci.

HAYATI J Biosci published by Department of Biology, Bogor Agricultural University (IPB), Indonesia, and the Indonesian Society for Biology. We accept submission from all over the world. Our Editorial Board members are prominent and active international researchers in

http://www.journals.elsevier.com/hayati-journal-of-biosciences

https://www.evise.com

HAYATI Journal of Biosciences

Original Research Articles

Identification of Diagnostic Mitochondrial DNA Single Nucleotide Polymorphisms Specific to Sumatran Orangutan (Pongo abelii) Populations Original Research Article
Pages 149-156
Puji Rianti, Dyah Perwitasari-Farajallah, Dondin Sajuthi, Joko Pamungkas, Alexander Nater, Michael Krützen

Impact of Domestication on the Endophytic Fungal Diversity Associated With Wild Zingiberaceae at Mount Halimun Salak National Park Original Research Article
Pages 157-162
Ivan Permana Putra, Gayuh Rahayu, Iman Hidayat

Encapsulated Synbiotic Dietary Supplementation at Different Dosages to Prevent Vibriosis in White Shrimp, Litopenaeus Original Research Article
Pages 163-169
Arsi Zuhaidah, Murdi Yuhana, Widanarni

http://www.sciencedirect.com/science/journal/19783019

Identification of Diagnostic Mitochondrial DNA Single Nucleotide Polymorphisms Specific to Sumatran Orangutan (Pongo abelii) Populations

HAYATI Journal of Biosciences

https://submit.journalofbiosciences.org

HAYATI Journal of Biosciences (HAYATI J Biosci; p-ISSN: 1978-3019; e-ISSN: 2086-4094) is an international peer-reviewed and open access journal that publishes significant and important research from all area of biosciences fields such as biodiversity, biosystematics, ecology, physiology, behavior, genetics and biotechnology. All life forms, ranging from microbes, fungi, plants, animals, and human, including virus, are covered by HAYATI J Biosci.

HAYATI J Biosci published by Department of Biology, Bogor Agricultural University, Indonesia and the Indonesian Society for Biology. We accept submission from all over the world. Our Editorial Board members are prominent and active international researchers in biosciences fields who ensure efficient, fair, and constructive peer-review process. All accepted articles will be published on payment of an article-processing charge, and will be freely available to all readers with worldwide visibility and coverage.

HAYATI J Biosci has been also indexed/registered in Crossref, DOAJ, CABI, EBSCO, Agricola and ProQuest. From October 2015, HAYATI is hosted by Elsevier and available free of charge through Science Direct.

Current Issue

https://journal.ipb.ac.id/index.php/hayati

Future of Scholarly Publishing and Scholarly Communication

Authors:
Directorate General for Research and Innovation (European Commission); Jean-Claude Guédon; Jubb Consulting, United Kingdom; Bianca Kramer; Mikael Laakso; Birgit Schmidt; Elena Šimukovič; Jennifer Hansen; Robert Kiley; Anne Kitson; Wim van der Stelt; Kamila Markram; and Mark Patterson.

Edited by

Independent Experts:
Jean-Claude Guédon, Chair and Rapporteur, University of Montreal, Canada
Michael Jubb, Rapporteur, Jubb Consulting, United Kingdom
Bianca Kramer, Utrecht University, The Netherlands
Mikael Laakso, Hanken School of Economics, Finland
Birgit Schmidt, University of Göttingen, Germany
Elena Šimukovič, University of Vienna, Austria/Lithuania

Experts representing organisations:
Jennifer Hansen, The Bill and Melinda Gates Foundation, USA
Robert Kiley, The Wellcome Trust, United Kingdom
Anne Kitson, RELX Group (Elsevier), United Kingdom
Wim van der Stelt, Springer Nature, The Netherlands
Kamila Markram, Frontiers, Switzerland
Mark Patterson, eLife, United Kingdom

PRINCIPLES to articulate their vision for the future of scholarly communication, as well as examine its current status

Maximizing Accessibility	Community Building
Maximizing Usability	Promoting High-Quality Research & Its Integrity
Supporting an Expanding Range of Contributions	Facilitating the Evaluation
A Distributed, Open Infrastructure	Promoting Flexibility & Innovation
Equity, Diversity & Inclusivity	Cost-Effectiveness

Recommendations to key actors:

Researchers and research communities should:

1. When participating in research assessment, for example in hiring, promotion and tenure, and funding decisions, focus on the merits and impact of a researcher's work and refrain from the use of metrics - particularly journal-based metrics - as a proxy. In particular, they should incorporate the recommendations from DORA and the Leiden Manifesto into the assessment process.

Researchers and research communities should:

2. Take responsibility for ensuring that all research contributions are made openly available, discoverable, and reusable according to agreed community standards (including the FAIR principles).

Researchers and research communities should:

3. Increase awareness of, and sense of responsibility for, implications of choices and actions in roles as authors, reviewers and members of decision-making groups.

Researchers and research communities should:

4. Strive for a balanced and diverse representation (in terms of gender, geography and career stage) when seeking collaborations, organizing conferences, convening committees, and assigning editors and peer-reviewers, and building communities such as learned societies.

Researchers and research communities should:

5. Work towards increased recognition and appreciation of peer-review work as core research tasks. To this end, support greater transparency, including the publishing of signed reports. Support better training and inclusion, and focus on quality of the research in peer review.

Researchers and research communities should:

6. In the case of communities of researchers, such as learned societies, develop policies and practices that support modes of scholarly communication in line with the vision outlined above. Along with universities, learned societies and other research communities need to alert and train their researchers to the importance and the responsibilities of communicating knowledge, either formally, through publishing, or through other means.

Universities and research institutions should:

1. Develop policies and practices to ensure that all research contributions are made openly available, discoverable, and reusable according to agreed community standards (including the FAIR principles).

Universities and research institutions should:

2. Promote and implement the recommendations of DORA and the Leiden manifesto to ensure that research assessment takes into account a wide range of scholarly contributions including research articles, preprints, datasets, software, patents and materials (e.g. in hiring, tenure, and promotion decisions).

Universities and research institutions should:

3. In deciding which infrastructures to use, support, and contribute to, choose platforms using free or open source software, offering open data via an open license, and leveraging open standards where possible. Acting in this fashion will also reinforce researcher-led initiatives that aim to facilitate scholarly communication and publishing.

Universities and research institutions should:

4. Strive for a balanced and diverse representation including, but not limited to, gender, geography and career stage) when hiring, seeking collaborations, when organizing conferences, when convening committees, and when assigning editors and peerreviewers, and building communities such as learned societies.

Universities and research institutions should:

5. In negotiations with service-providers refuse non-disclosure clauses and include clauses which enable cost and price control, and compliance monitoring. Strive to facilitate collective action with other institutions by e.g. sharing cost and price data through joint initiatives (e.g. OpenAPC).

Research funders and policy-makers should:

1. Develop policies - along with appropriate funding mechanisms - to ensure all research contributions arising from their funding are available to everyone, everywhere, without any barriers to access or restrictions on reuse.

Research funders and policy-makers should:

2. When evaluating researchers, ensure that a wide range of contributions (scholarly publications, but also data, software, materials etc) and activities (mentoring, teaching, reviewing etc) are considered, and that processes and criteria of evaluation are both appropriate to the funder's research programme, and transparent.

Research funders and policy-makers should:

3. Develop funding mechanisms to support the development of open, interconnected and distributed scholarly publication infrastructures, and for their maintenance over the long term.

Research funders and policy-makers should:

4. Consider how funding policies affect diversity and inclusivity of research on a global scale. In particular, funders should work to ensure that review boards, committees, panels, etc., are diverse - in terms of gender, geography, and career stage.

Research funders and policy-makers should:

5. Work with the other actors in the scholarly communications ecosystem to ensure that the total costs of enabling research to be openly available to everyone, everywhere, without barrier or restriction, be also open and transparent.

Publishers and other service providers should:

1. Develop and publicly announce transition plans to move as soon as possible to comprehensive open access.

Publishers and other service providers should:

2. Develop, use, and support interoperable tools (including open source software wherever possible) and services not only to facilitate access and reuse of scholarly outputs, but also to facilitate innovative interventions of new entrants.

Publishers and other service providers should:

3. Strive for balanced diversity (including, but not limited to, gender, geography and career stage) among authors, reviewers, and editors who work with publications.

Publishers and other service providers should:

4. Foster transparency and accountability in peer review, for example by publishing peer review reports and author responses alongside the published articles.

Publishers and other service providers should:

5. Make all publishing charges public (including special pricing and waivers), and provide full descriptions of services provided, in order to enable the development of a transparent and cost-effective marketplace designed to support the open communication and reuse of all scholarly contributions.

Publishers and other service providers should:

6. Experiment with new approaches to the evaluation and communication of research outputs, and share the outcomes so that a body of evidence can help to optimise future systems.

Practitioners, educators, and other societal groups should:

1. Organize and advocate for free access to, and right to reuse of, publicly funded research results.

Practitioners, educators, and other societal groups should:

2. Reach out to funders, research institutions, and policy makers in order to develop new communication channels, new forms of co-creation and co-planning of research, and new forms of funding in response to needs, concerns and issues emanating from the population at large.

Practitioners, educators, and other societal groups should:

3. Look for opportunities to engage with research topics / results that are of interest to societal groups and their communities.

Practitioners, educators, and other societal groups should:

4. Bring forward research topics/questions that are mis- or underrepresented (e.g. by contacting relevant researchers, attracting the attention of other actors in the science system, or mobilising action in organised interest groups).

THANK YOU

Email:
bjuliandi@apps.ipb.ac.id
FB: Berry Juliandi
IG: bjuliandi
YT: bjuliandi
Twitter: BerryJuliandi

Ivonne Kristiani, M. Phil.

- ✓ Ivonne Kristiani is Project Coordinator for Open Data Projects at Goethe-Institut Jakarta.
- ✓ She led and oversee Retas Budaya project, an open cultural data hackathon in 2020. Previously, she is the Deputy Chair of Wikimedia Indonesia and has been volunteering for Wikimedia since 2010.
- ✓ Her paper titled "Encouraging indigenous knowledge production for Wikipedia" was published in *New Review of Hypermedia and Multimedia*.
- ✓ She obtained her Master's Degree in Sociology and Political Philosophy from Université Paris–Diderot, France.
- ✓ She is a Creative Commons Global Network member and an advocate for open access and open license.

Deputy Chair of Wikimedia Indonesia and has been volunteering for Wikimedia since 2010

Master's Degree in Sociology and Political Philosophy from Université Paris–Diderot, France.

Project Coordinator for Open Data projects at Goethe-Institute Jakarta

Beyond Open Access: Participatory Production of Scientific Knowledge

Abstract

Open access policy has democratized dissemination of knowledge by allowing an unrestricted access of scholarly publications to the public. This, in turn, creates new avenues for discovery and Increases the impact of scientific research. The "open" principles in scientific production, however, can be further applied not only in terms of knowledge dissemination but also in knowledge production. Drawing lessons from open cultural data hackathon Retas Budaya, we will have a glimpse at the landscape of participatory research projects in Indonesia and outline some recommendations based on the current condition.

BEYOND OPEN ACCESS:
PARTICIPATORY PRODUCTION OF SCIENTIFIC KNOWLEDGE

Ivonne Kristiani
Project Coordinator
Goethe-Institut Jakarta

19.05.2021

Image by MikeAMorrison

OPEN ACCESS TO RESEARCH

- **Removing barriers to obtain and read scientific findings.**
- **Accelerate discovery.**
- **Reaching audiences beyond researchers.**
- **Increased impact.**

THE OPEN ECOSYSTEM
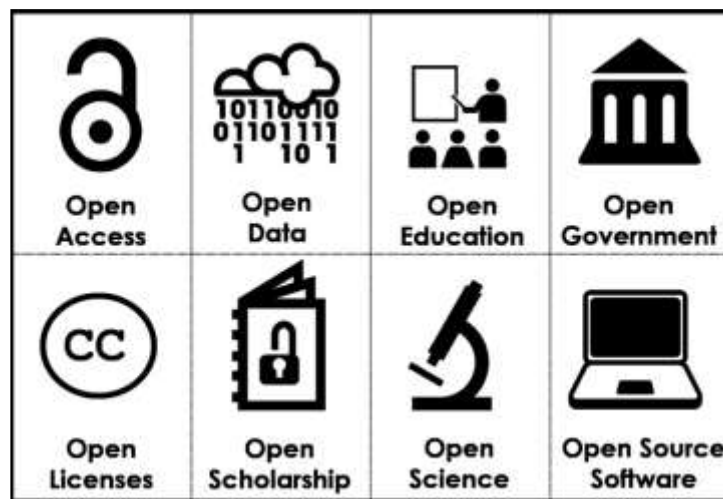
Image by Abby Clobridge

SCIENTIFIC RESEARCH PROCESS

PRODUCTION → PUBLICATION → DISSEMINATION

SCIENTIFIC RESEARCH PROCESS

PRODUCTION → PUBLICATION → DISSEMINATION

SCIENTIFIC RESEARCH PROCESS

PARTICIPATORY PRODUCTION → PUBLICATION → DISSEMINATION

OPEN ACCESS:

- **The public (non scientists) can access scientific publications.**

PARTICIPATORY RESEARCH:

- **The public (non scientists) can participate in scientific research.**

PARTICIPATORY RESEARCH:

- **Citizen Science**
- **Crowdsourcing**
- **Open Science**

PARTICIPATORY RESEARCH

"The many ways in which members of the public have engaged and continue to engage in the production of scientific knowledge."

-Strasser et al., 2019: 66

PARTICIPATORY RESEARCH

The general public participate to some degree in data collection (sensing), analysis, self-reporting, making, and/or computing.

EARLY EXAMPLE

In 1847, colonial botanist Ferdinand Mueller used newspaper advertisements to <u>call for volunteers</u> to help him collect specimens of every plant in Australia.

WHY?

1. Facilitating research on a bigger scale by adding additional people.

2. Tapping into new sources of information, knowledge and perspectives.

3. Developing new methods.

4. Improving openness and reliability of research.

5. Potentials for international & cross-border cooperation.

EXAMPLES IN INDONESIA

CULINARY ENCYCLOPEDIA

Data Collection:
Volunteers submit culinary dishes from all around Indonesia.

MUSEUM DEWANTARA KIRTI GRIYA
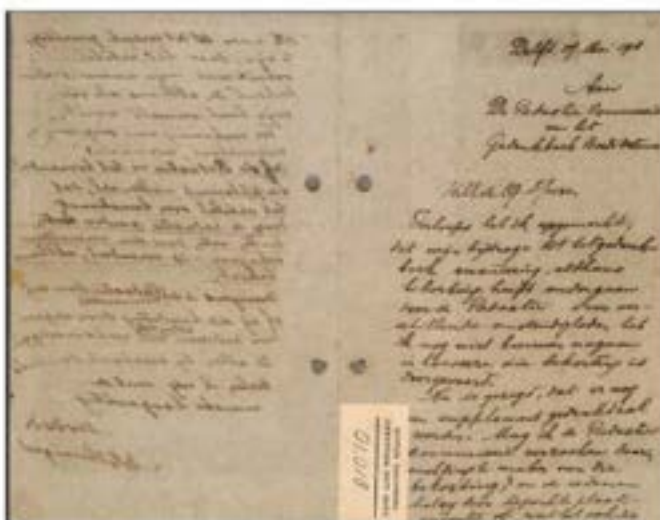
Enriching collections:

Volunteers help transcribe letters of Ki Hajar Dewantara in Dutch.

Then, the letters were translated into Bahasa Indonesia.

CITIZEN SCIENCE & OPEN DATA

CITIZEN SCIENCE & OPEN DATA
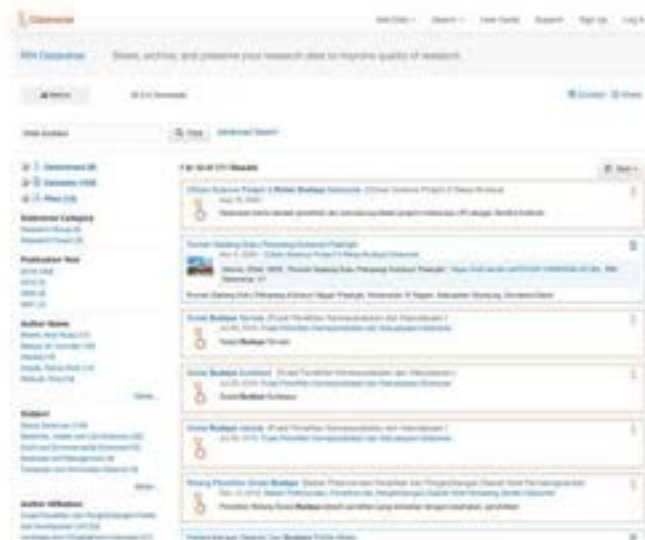
Citizen Science project in collaboration with LIPI (Indonesian Institute of Sciences)

WHAT DID WE LEARN?

- The concept of citizen science is new in Indonesia. Although the practices has been done, it was not dubbed as citizen science.

- To attract public in becoming citizen scientist, we need a clear goal, intended use, and preservation plan.

- Using an established platform is easier than having to train people in using a new, unfamiliar platform.

THANK YOU!

More info on Retas Budaya:
goethe.de/retasbudaya

Contact:
ivonne.kristiani@goethe.de
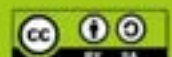
IMAGE ATTRIBUTIONS

- Open Access image:

https://commons.wikimedia.org/wiki/File:Open_Access_logo_with_dark_text_for_contrast,_on_transparent_background.png

- The Open Ecosystem image:

https://press.Rebus.Community/openatthemargins/chapter/the-future-of-the-public-mission-of-universities/

- Ferdinand Mueller image:

https://commons.wikimedia.org/wiki/File:Ferdinand_Jacob_Heinrich_von_Mueller00.jpg

- Culinary Encyclopedia:

ensiklopedikuliner.pmb.lipi.go.id/ensiklopedi

- Museum Dewantara Kirti Griya:

https://commons.wikimedia.org/wiki/Category:Letters_from_Tamansiswa_Dewantara_Kirti_Griya_Museum_library

- Retas Budaya:

goethe.de/retasbudaya

QUESTION AND ANSWER
Session 1

14.20 - 14.40

Discussion of Session 1

James Fox:
I tried to answer a number of questions that have come in the Q&A. One of the important aspects of open access published for the researcher is that their research is widely distributed. So when you have a choice between 350 possible copies of your book, sold in libraries around the world, or say you have 200-300 or more downloads per month. Ultimately, most researchers choose to go for wide distribution. So that is the biggest factor that leads people to publish with the annual press. At the beginning, it was very hard to obtain publications because fewer people knew about open access and fewer people thought that was the way to go. Now, we have a flood of very large number submissions of manuscripts, which our rejection rate is going up because we have to continue to use strong peer review.

So I think that is the key to the importance of open access. What happens is, when you participate in open access, you create a community of scholars whom you may have not known about when you publish a book, as I have experience finding out that getting a response of the book from not just the US or Australia, but from Finland to the South Pacific to South America. You begin to realize there is a wider community that you did not know exist been exist, and then suddenly you are participating and making comparisons with their research.

There is a special benefit to the researchers from the distribution of large numbers of books. Finally, related to the analytics, we are still working on improving our analytic monitoring of individual books, and we think when someone publish with us goes for promotion, we would be able to give them a great deal of information on where their books were downloaded, and increasingly by whom, and possibly for what purposes. Our analytics now is still far from the analytics of Amazon, but as we increase our capacity for monitoring who is downloading, we have the capacity to inform our authors who is using their books.

Berry Juliandi:

I already give my answers to almost all questions, but I want to emphasize the burden of a chief editor. We receive more than 700 manuscripts a year and we can only publish 40. So you can imagine this voluntary work with this huge submission, and also the peer review process hinders us from doing good publication and dissemination, good as in fast and open. So that recommendation from them is very good to establish the future practice for our publishing and dissemination process. For example, we should diminish the use of metrics and index as a sole judgement for the reputation of researcher. We need to judge the paper by reading the paper, not by judging the metrics or index. The policy should be put by university, research centre, or government, that they need to read the track record and the article using a board of reviewers or committee. If this is established in Indonesia, we can have good ecosystem for academic publishing and dissemination.

Dasapta Erwin:

The question is directed to Ms. Ivonne. Everyone can write in Wikipedia, but no prestige in Wikipedia. As the public, what would you think?

Ivonne Christina:

Looking as a public, as a non-academic, they would volunteer in a project or crowd-sourcing project if the topic is very close to their heart, or they have a strong interest in that topic. And I could only say from the experience of Wikipedia, I was amazed of how many people volunteering on Wikipedia even though they do not get any money and recognition because writing on .

Wikipedia is anonymous. However, they can get satisfaction just because they keen to contribute their own knowledge. For example, a lot of Wikipedians write about their hobbies, such as automotive or botany. Even though they are not scientists, but they are very curious and read a lot on that topics and they like to show and contribute their knowledge through Wikipedia, although their names will not appear and will not get any monetary compensation. The fact that what they have contributed can help other people to get satisfaction and motivation.

Dasapta Erwin:

Do you think there are many Indonesian scientists or researchers using Wikipedia as contributors?

Ms. Ivonne:

I cannot say because I do not know how many academics or researchers use Wikipedia. But what I can say is, Wikipedia could fill the gap in the research process. For example, for a lot of people who cannot access scientific research, they can read a summary of it on Wikipedia which is free and accessible for everyone. It is also important for students, not in terms of copy pasting the Wikipedia article to their publication, but in science communication sometimes it is important although the scientific papers are available, and it is still difficult to be understood by the non-academics. It is very important to have somebody translating them in a very easy-to-understand way, and that is how Wikipedia comes into place. Wikipedia translates some very dense and difficult research findings into a language that can be easily understood by public

Discussion Session 2

MS2 — **Prof. Sri Adiningsih** – Professor in Faculty Economics and Business, Gadjah Mada University / fellow of Indonesian Academy of Sciences
Moderator for Discussion Session 2

04 — **Maryam Sayab, M. Phil. -** Professional Development Manager of Asian Council of Science Editors, Dubai– UAE
"Publication and Dissemination of Digital Scholarly Communication: Ways to Facilitate"

05 — **Hendro Subagyo, M.Sc.** – Head of Centre for Scientific Data & Documentation of the Indonesian Institute of Sciences (PDDI LIPI)
"Digital Scholarly Communications and the Journey to Open Science in Indonesia"

Discussion Session 2

Prof. Sri Adiningsih

✓ Adiningsih is a professor of economics from the Faculty of Economics and Business UGM, graduated Ph.D. from the University of Illinois USA in 1996, with a dissertation on Optimal Bank Portfolio Choice and Bank Regulation, the Indonesian Case.

✓ She has a long and distinguished academic and public service career. Some of the tasks that have been carried out include Postgraduate Manager for the Study Program of Economics & Development Studies, Head of the Center for Asia Pacific Studies, Director of Research and Training in Economics and Business FEB UGM, Expert Team of the MPR 1 Ad hoc Committee, Secretary of the Constitutional Commission, Members of the BI Supervision Agency, Chairman of the Presidential Advisory Council 2015 -2019.

✓ Adiningsih is also active in various organizations both at home and abroad. At present, many are devoting themselves to the development of the digital economy and digital transformation in Indonesia so that it can provide benefits for all.

Professor in Faculty of Economics and Business, Gadjah Mada University since 2013.

Ph.D. from the University of Illinois, USA in 1996

Actively devoting herself to the development of the digital economy and digital transformation in Indonesia in order to provide benefits for all.

Maryam Sayab, M. Phil.

- ✓ Sayab is an independent writer, trainer and strategic planner holding a demonstrated history of working in the Publishing & the Management Consulting Industry with profound skills in Editorials & Scholarly Communication.
- ✓ She is passionate about scholarly publishing and currently serving the Asian Council of Science Editors as Professional Development Manager and has attended many International/National conferences as organizer, trainer & presenter.
- ✓ She had worked for the Asian Network for Scientific Information developing some of their flagship medical journals. This experience has given her a useful insight into the journal development process in both learned society and commercial environments across a wide rang of subject areas.
- ✓ Conducted several workshops on:
  1. "Ways to Detect & Deal with Plagiarism in Academic Writing", 2019, Asian Network for Scientific Information, Pakistan.
  2. "How to Write an Effective Research Paper" 2019, Asian Network for Scientific Information, Pakistan.
  3. "Effective Scientific Writing & Plagirism" 2019, Asian Digital Librray, Pakistan.

Professional Development Manager The Asian Council of Science Editors

M. Phil. in Chemistry and attended many International/National conferences as organizer, trainer & presenter

Asian Council of Science Editors - Profession Development Manager Deira Dubai, UAE / Executive Managing Editor Asian Journal of Emerging Research – 2019 till present

Publication and Dissemination of Digital Scholarly Communication: Ways to Facilitate

By: Maryam Sayab | PDM at Asian Council of Science Editors
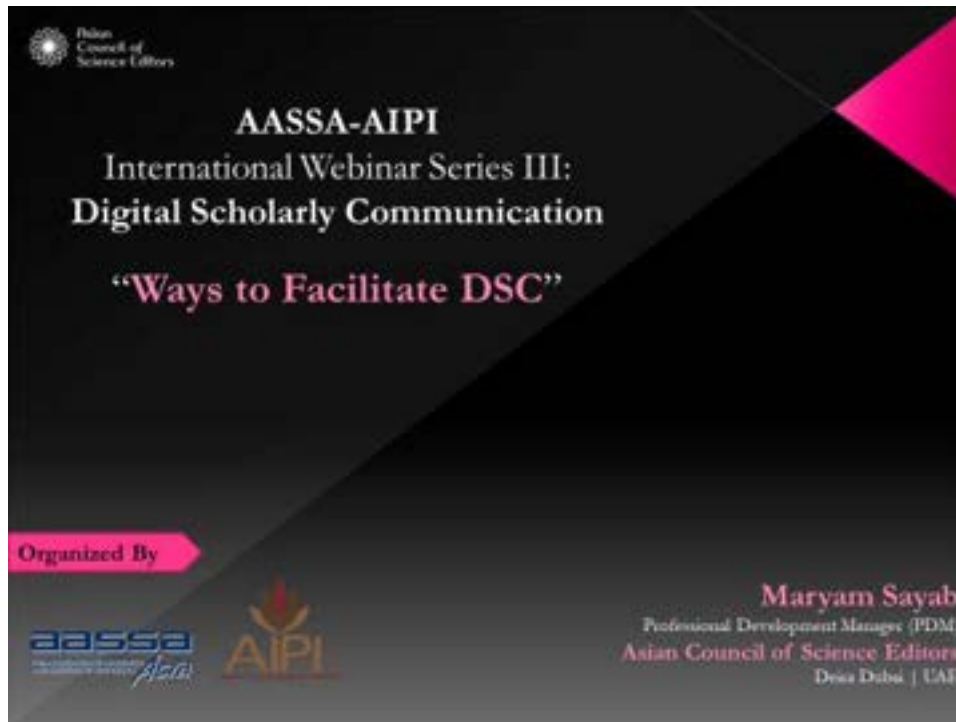
Abstract:

Digital Scholarly Communication (DSC) has been experiencing some pandemic-driven radical challenges inclusive of equity, diversity, quality, integrity, indexing, archiving, and much more in establishing a stable framework for journal publishing. The current open access (OA) publishing model of the Asian Publishing Industry (API) has been spotted to be too slow & outdated to fit the up-and-coming research work related to crises such as the COVID-19 pandemic. Aside from Asia's total research production and R&D expenditure that is now on equal board with developed countries like the USA, Europe, UK, etc; still API is struggling to compete on qualitative and technical grounds. Also, the rising digital publishing demands of innovative, economic, and reliable models have been badly affected by the dominance of commercial players and suppressing new tech tools and new players.

Considering the shifting landscape of DSC, the publishing infrastructure of API needs to be revised based on new open standards and policies to ensure transparency, accessibility, and interoperability. The major procedures involved here are approaching reliable and up to date online submission systems associated with subscription and peer review management systems, revised policies for OA publishing, encourage not-for-profit/national (local) indexing databases, develop Asia's own national archiving body to support our scholarly publishing journals and confirm their content quality, accessibility, and dissemination, awareness campaigns on how to get maximum benefits by pre-prints/peer review. The policymakers should also consider Green OA- publishing option as it has facilitated the procedures a lot being fully OA, economic, and fully accessible so far.

The current pandemic situation not only revealed major flaws in the DSC system in Asia but also urges a technological shift ensuing that the invested money is in public or non-profit hands, and the adopted publishing procedures are unbiased, fully independent and can be readily disaggregated and re-allocated. Finally, only a healthy alliance between policymakers, funding agencies, research institutions, industry collaborators, libraries, and researchers can help reform the infrastructure of digital scholarly communication ensuring an optimal degree of openness in publishing and maintain a balance among public & private sectors.

Keywords: Open Access, Green OA, Digital Publishing, Indexing, Archiving, Asian Publishing Industry, Pre-Prints, Publishing Trends
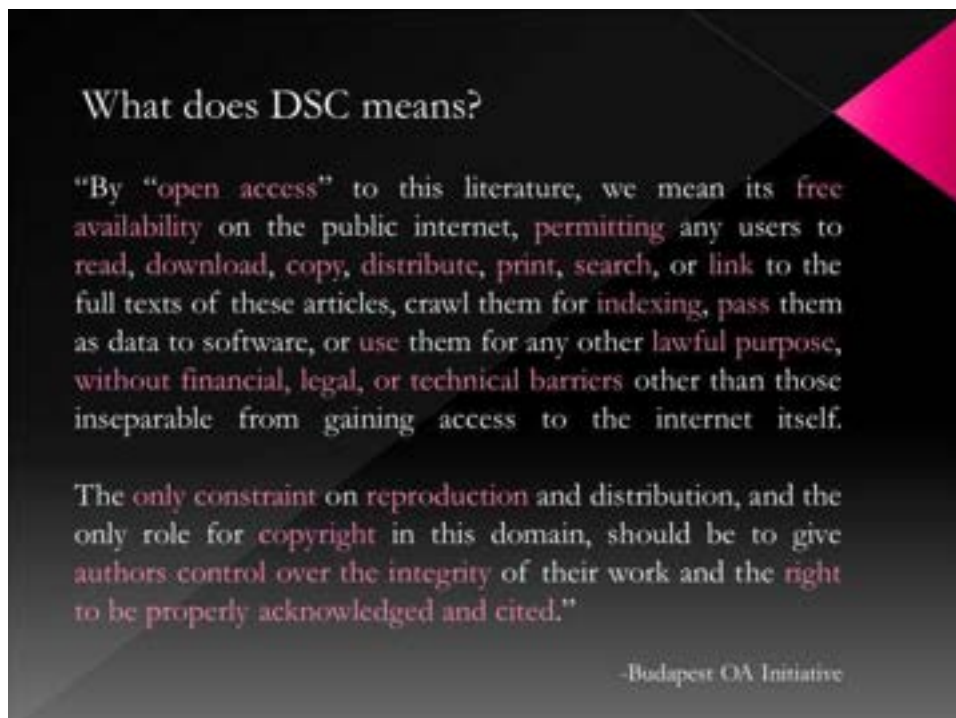
"By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself.

The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited."

-Budapest OA Initiative

Digital Scholarly Communications and the Journey to Open Science in Indonesia

Abstract:

ICT developments have forced scholarly communication to be more digital and more open. Indonesia is in the top 3 of the countries with the most open access journals. Government's encouragement through incentives and ranking of scientific publications is not sufficient enough accelerating the achievement of the target of becoming an innovative country. In this open science era, research has become more data-intensive and more collaborative. Indonesia has struggled to catch up in open science by opening scientific publications and data, and also to become a more collaborative research ecosystem.

Digital Scholarly Communications and the journey to Open Science in Indonesia

Hendro Subagyo
Center for Scientific Data and Documentation (PDDI LIPI)

DSC Webinar Series 3rd
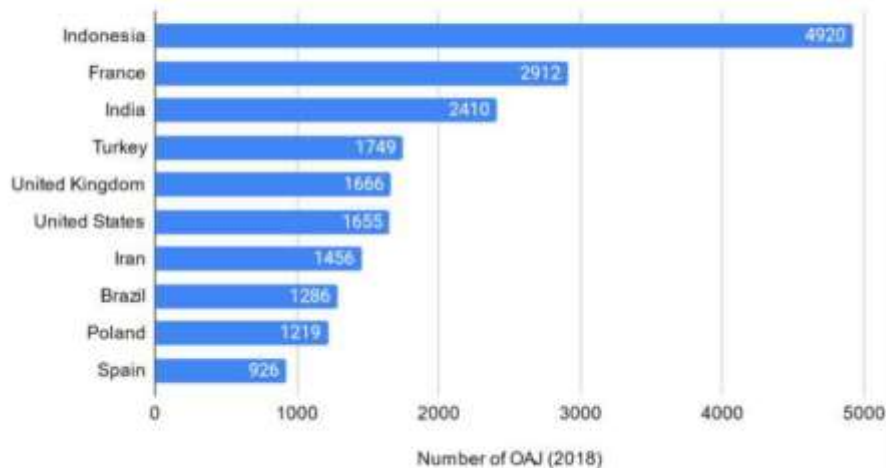Open Access Publication and Dissemination of DSC
19 May 2021

Abstract

ICT developments have forced scholarly communication to be more digital and more open. Indonesia is in the top 3 of the countries with the most open access journals. Government encouragement through incentives and ranking of scientific publications is not sufficient to accelerate the achievement of the target of becoming an innovative country. In this open science era, research has become more data-intensive and more collaborative. Indonesia has struggled to catch up in open science by opening scientific publications and data, and also to become more collaborative research ecosystem.

Indonesia's Status on Open Access DSC

- ICT developments have forced scholarly communication to be more digital and more open.
- Indonesia is in the top 3 of the countries with the most open access journals.
- E-ISSN registrations in Indonesia have increased, compared to Print ISSN in recent years
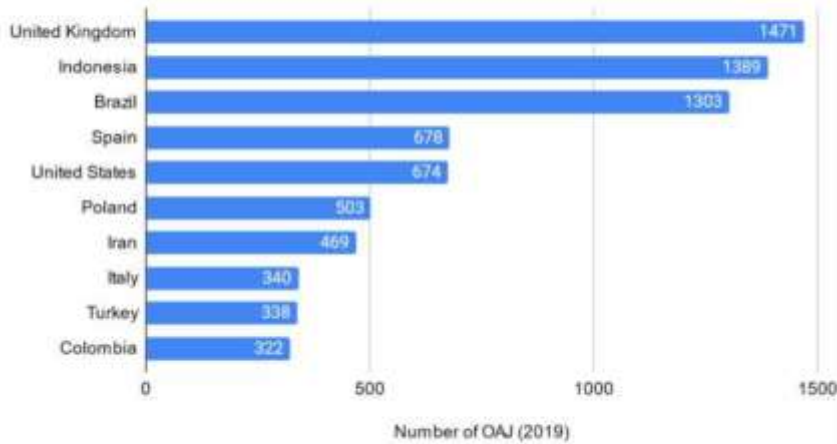- The number of scientific publications and institutional repositories has increased sharply in recent years

Top 10 Open Access Journals (ROAD 2018 Report https://road.issn.org/)

ROAD (2018)

| Country	Number of OAJ (2018)
Indonesia	4920
France	2912
India	2410
Turkey	1749
United Kingdom	1666
United States	1655
Iran	1456
Brazil	1286
Poland	1219
Spain	926

Top 10 Open Access Journals (DOAJ 2019)

Morrison, H. et al. (2019). OA Main 2019: Dataset, documentation and open peer review invitation. *Sustaining the knowledge commons.*
https://sustainingknowledgecommons.org/2019/11/20/oa-main-2019-dataset-documentation-and-open-peer-review-invitation/

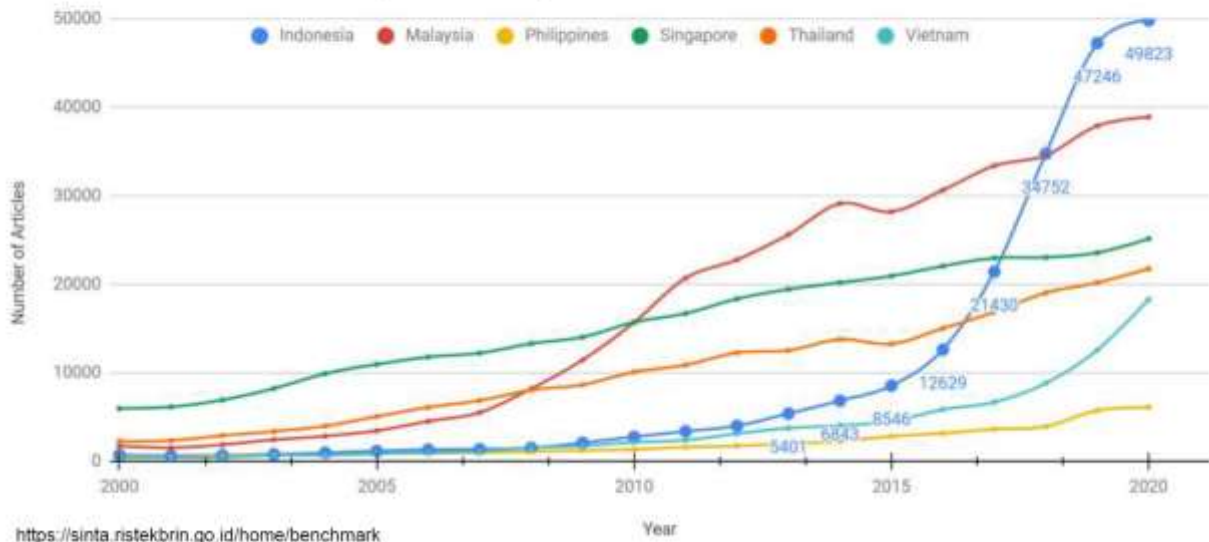## Growth of ISSN in Indonesia: more digital/online every year

(18 May 2021)
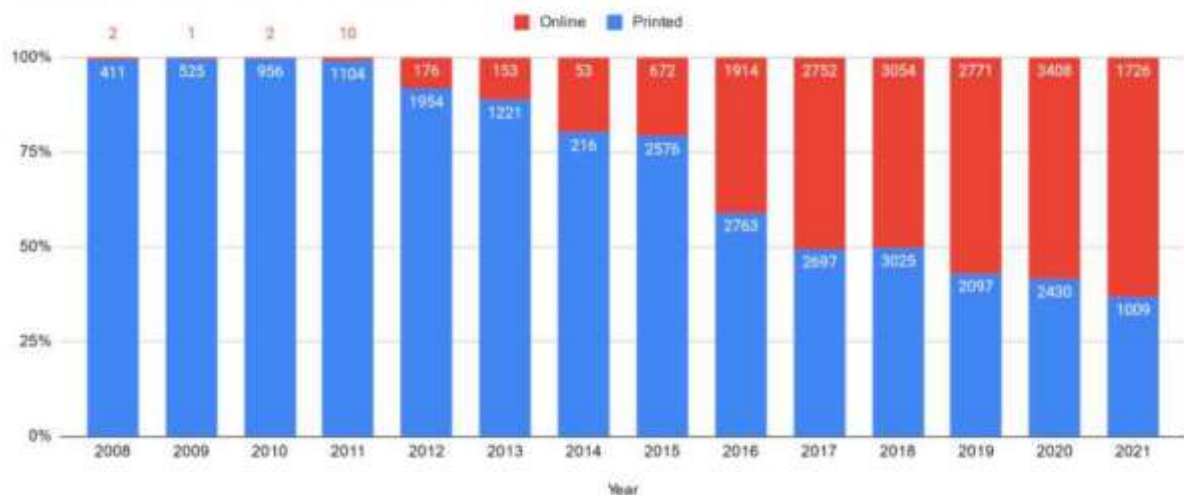
Growth of published scientific articles

ASEAN Scientific Publication (2000 - 2020)

https://sinta.ristekbrin.go.id/home/benchmark

Number of Scientific Repository (OpenDOAR https://v2.sherpa.ac.uk/)

Number of Institutional Repositoy of SE Asia (OpenDOAR 2020)
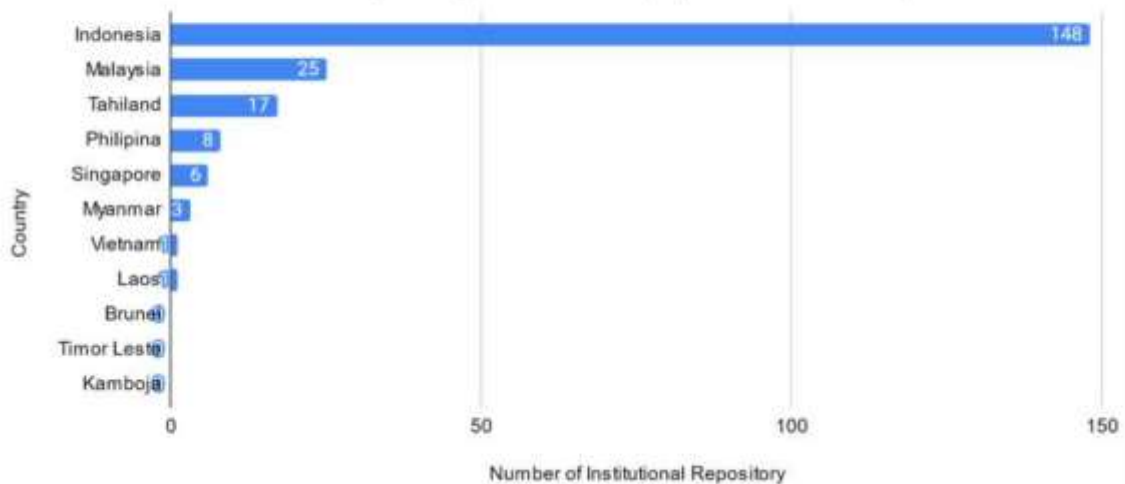
What we have done (1)

- Build the national repository for journals (2009 ~) and data (2018 ~)
  - ISDJ (2009~), Garuda (2010~), RIN (2018~)
- Encourage of publishing the research results by incentive and ranking
  - Using Simlimtabmas (2016~) and SINTA (2017~) as as a reference for giving research grant and other incentives
- Encourage development of institutional repository (2010 ~) through university/school accreditation

What we have done (2)

- Established better standard journal management guideline (Arjuna 2018~)
- Encourage online and open access journal framework
- Provide and facilitate the implementation of the open journal, open data and Open Science movements
  - LIPI opens facilities: HPC, RIN, Rujukan, RINArxiv, ELSA (laboratories)

What we have done (3)

- Established Indonesia's 2019 Law on National Knowledge System and Technology (ensure the public can access and use the results of research).
- Established Indonesia's Research Roadmap for more open and collaborative research and innovation by consolidation of government research bodies (BRIN)

LIPI's Open Facilities to support Open Science movements (open for public)

RIN: Repositori Ilmiah Nasional (National Scientific Repository)
National repository for research data (free)
Datasets: 7.136, files: 18.559 from about 700 research units.
rin.lipi.go.id

Mahameru – LIPI HPC
Supercomputing Service (free)
hpc.lipi.go.id

ELSA (Science Services Electronic)
Laboratories and other research services.
534 labs (equipments), 51 machines, research mentoring etc.
elsa.lipi.go.id

Rujukan (Home of Science Journals)
Free hosting for OJS. Journal: 347.
rujukan.lipi.go.id

RIN Arxiv
community-led digital archive for unpublished preprints.
rinarxiv.lipi.go.id

What we will do

- Do not stop only at open access, but a wider openness, which is open science
- Making LIPI as hub of research collaboration by opening the infrastructure (human resource, institutional networks and software-hardware) to public
- Support the final draft of UNESCO's Recommendation of Open Science (May 2021)

Open Science (UNESCO's draft 13 May 2021)

- **Open Science** is defined as an inclusive construct that combines various movements and practices aiming to make multilingual scientific knowledge openly available, accessible and reusable for everyone, to increase scientific collaborations and sharing of information for the benefits of science and society, and to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.

- Five **key pillars**: open scientific knowledge, open science infrastructures, science communication, open engagement of societal actors and open dialogue with other knowledge systems.

Open Science (UNESCO's draft 13 May 2021)

- **Open scientific knowledge** refers to open access to scientific publications, research data, metadata, open educational resources, software, and source code and hardware that are available in the public domain or under copyright and licensed under an open licence that allows access, re-use, repurpose, adaptation and distribution under specific conditions, provided to all actors immediately or as quickly as possible regardless of location, nationality, race, age, gender, income, socio-economic circumstances, career stage, discipline, language, religion, disability, ethnicity or migratory status or any other ground; and free of charge. It also refers to the possibility of opening research methodologies and evaluation processes.

Open Science (UNESCO's draft 13 May 2021)

Free Access to
- Scientific publications
- Open research data
- Open educational resources
- Open source software and source code
- Open hardware

Be **FAIR**
Findable Accessible Interoperable Reusable

and

CARE
Collective Benefit Authority to Control Responsibility Ethics

Terima kasih

Hendro Subagyo

Plt. Kepala Pusat Data dan Dokumentasi Ilmiah
Lembaga Ilmu Pengetahuan Indonesia

Email: hendro.subagyo@lipi.go.id
Twitter: @hendrosubagyo

QUESTION AND ANSWER
Session 2

15.40 - 16.00

Discussion of Session 2

Sri Adiningsih:

Mr. Subagyo has mentioned that Indonesia now is in the top 3 countries with the most open access journals, which government provides encouragement and a lot of incentives and research grant. I think almost all campuses has not just only open access but open science.

Dasapta Erwin:

Question to Ms. Maryam, asking for DSC, is it a generic term or is it some kind of specific brand or workflow? Thank you for your strong statement about encouraging to work with commercial entities, that was also the point that mentioned in the UNESCO recommendation for open science.

Maryam Sayab:

DSC is an abbreviation of digital scholarly communication. The product is the SciOne, which is an online submission system. SciOne facilitates the digital scholarly system, it is a product of ACSE — an online submission system that is connected with 3-4 extensions, peer review, along with it provides indexing, pre-printing service, archiving body service. The individual or society journal will be managed by the SciOne own team from pre-submission, publication and post-publication. If we talk about Asian publishing industry and the procedures, the procedure actually starts after publishing. I am speaking on behalf of Asian Counsel of Science Editors, this is an organization based in Dubai. This is one of the products of ACSE.

Abdullah bin Tariq:

About the PKP's open journal system, so could Ms. Maryam talk about this? Are you aware of this or could you mention the differences between the services in PKP's OJS and the ACSE's SciOne?

Maryam Sayab:

The major difference as far as experienced in the last 1,5 years specifically during the pandemic, that majority of the journals go for the online submission system. The main issue is, all of the online submission systems do not provide you with your independent hosting plan. There is a difference that the hosting plan will be managed, you must be needing an IT full team (2-3 persons) that will handle your metrics, indexing procedures, and archiving body. But with SciOne, although I am not an IT expert, but I can manage from publication to post-publication issues.

Abdullah bin Tariq:

It is the same with OJS? Is it a free service?

Maryam Sayab:

OJS needs a hosting plan, as once you install and start using OJS, you must need an external hosting plan to go with the server and proceedings. The hosting plan is on their server machine. At any point, if you are using OJS, the main hosting plan and server machine updation, each and everything has to be managed from your side, and you need an IT expert. Being the researcher, it is difficult to understand the terms of metrics, how to manage hosting,

server, the updation of OJS and the related online submission system. So SciOne has a unique feature that you should not be an IT expert to deal with SciOne online submission system. You can just transfer your journal, like filling a form, go in the panel of SciOne just like a Gmail suite. It's easy to use and user-friendly.

It is a subscription-based service from SciOne. If you request for the service, we have to check with the department what they can offer regarding the region you are based in.

Dasapta Erwin:

I think SciOne is similar with Rujukan, the one that Mr. Hendro explained. We have this server and we install OJS. The difference is, with SciOne you have the server, admins, and you can create some kind of specific software in journal publishing that also incorporate the peer reviewing system.

Abdullah bin Tariq:

Peer review is also available on OJS, you just have to enable it.

Maryam Sayab:

As you know that ASCE is a non-profit organization, and majority of the tools are free for the Asian publishing community. We initiated SciOne 1,5 years ago and so far we have about 150+ journals that are using SciOne server online submission system and they are operating it like a technical person. Only publishing is not

enough, we have to connect your published content into an archiving body, and make your data in the indexing body. They can extract your data and it is automatically connected. You do not need to upload your data anywhere. The SciOne team will be responsible to connect your data with the indexing databases, major aggregates and in the archiving bodies too. With one solution, you can resolve a major of the issues that the journal management team is facing.

Abdullah bin Tariq:

Yes, but even this is available on OJS. And OJS is used by more than 10,000 journals already.

Maryam Sayab:

From my experience, I have been getting this one question that OJS training aspect, hosting issues and the server machine issues, that Asian community is facing. This is something different when you talk about only OJS, that the hosting plan, the server machine, the technical terms that the researchers alone do not understand. If we talk about being myself as a researcher, these are the technical terms only an IT person can understand. With SciOne, being a researcher, you can manage the whole of the procedure.

Hendro Subagyo:

In Indonesia, we have similar system as SciOne, called Rujukan, the home of scientific journal. We manage the server, we manage the IT aspect of the server, and the publishers just manage the management aspect. Anyhow, the indexing system is different. If we want to index the content of OJS, we rely to the mechanism of OJS and relay this to the indexing engine such as Google to index this. In Rujukan, it is up to the publishers to manage the indexing and how they manage the indexing settings. We give this choice to the publishers, if the data is connected to our data repository or connected to another data preservation or indexing system.

Finarya Legoh:

There is a question from Ms. Diah from University Airlangga. "I have managed all journals in University Airlangga and has to register our publisher to Sherpa. But until now, we do not know our publisher has to accept it or not. Can we ask about this problem to LIPI, that maybe can help us".

Hendro Subagyo:

I have experience to communicate with the management of Sherpa Romeo. I do not know what the problem is, but we can discuss later to help you put your journal to Sherpa Romeo.

Wrap-up Webinar
Series 3rd

16.00 - 16.10

- From the first session, firstly, the open publications are useful to get particular publications worldwide access and globally shared. When it is not in the open publication, only limited number of people read them. Sharing information to all is very important, especially during COVID-19 pandemic when information about COVID becomes more and more important. As understandable, many scientific papers on COVID-19, even though in the commercial publications, are then provided through open access and becoming free for people. The urgency is needed to do the research on COVID-19 vaccination and other derived problems.

- Secondly, it can be shown by the experience in Indonesia, sharing information from the publication that Dr. Berry mentioned, about how he managed the publications on his field, from commercial publication to open publication. And lastly, many people can get involved in the research and later in the publications.

- From the second session, ICT development has forced scholar communication to become more digital and open. Especially during COVID-19, people commonly use webinars, online discussions, operating and sharing articles, and people suddenly become experts in digitalization. Quite interesting that some Asian countries actually have the level of R&D comparable to the US and European countries. Digital scholarly communication, especially in developing countries like Indonesia, India, Bangladesh, experiences some shifting due to the pandemic. For sure, it is needed to develop open access and open science. As Indonesia has made some significant progress and have plan to become the hub of open access and open science.

Recommendation of Webinar Series

16.00 - 16.10

Recommendation of Webinar Series

Prof. Mayling Oey-Gardiner

- ✓ As a member of the Indonesian Academy of Sciences (AIPI) and becomes the Chair (since 2018) of the Social Science Commission (AIPI-KIS). Up to now, she continues to do the research work as well as writing various social and humanities issues, including gender issues, inequality in general and special issues of welfare, and equality access to education

- ✓ Mayling Oey-Gardiner is a lecturer at the Faculty of Economics & Business, University of Indonesia, where she has worked since 1971 until now, and became the first female Professor in 2001, since she returned after earning a Ph.D. in Demography (1982)

Emeritus professor of the Faculty of Economics and Business, Universitas Indonesia

Ph.D. at Canberra, Australia 1982; MA at College of William and Mary, Virginia 1970 and at Harvard Unv, Massachusetts 1974

Actively researching and writing various social & humanities issues, gender issues, injustice in general and specifically in the field of welfare and access to education

AASSA – AIPI International Webinar on
DIGITAL SCHOLARLY COMMUNICATION

Jakarta,

31 March 2021; 28 April 2021; 19 May 2021

Jointly Organized by

Association of Academies and Societies of Sciences in Asia (AASSA)

Indonesian Academy of Sciences (AIPI)

Supported by

InterAcademy Partnership (IAP)

Academy of the Social Sciences in Australia (ASSA)

Recommendations

1. Background

AASSA and AIPI supported by IAP and ASSA organized the international Webinar Series on Digital Scholarly Communication, held on 31 March, 28 April and 19 May 2021. Through conclusion made by the Webinars' intensive discussions, the organizers and speakers would like to recommend some points for not only scholars, scientists, stakeholders and general public, but also to the world's ones.

Based on three Series of the international Webinar on Digital Scholarly Communication, it is clear that the call for Open Access can be labelled as already having reached a global scale. As the powerful North-Western scientific oligopolistic publishers have become increasingly more powerful in the market, it is advisable that individual educational and/or research institutions or even countries of the south, the less developed countries, join those global organizations thereby strengthen their leverage against all-powerful giant scientific publishers. Even scholars from less advantaged societies should have equal access to quality and the most up-to-date research results to enable them to contribute to the universal knowledge ecosystem.

We have identified two issues of grave concern to call on other countries which have not yet done so to: (1) join the movement and struggle to create equitable access, referred to as Open Access (OA) as the part of wider definition of Open Science (OS) in which UNESCO is advocating for; and (2) combat predators and protect innocent scholars against financial abuse by predatory publishers. For this purpose, we shall rely on presentations of a number of speakers referred to below.

2. Open Access

Scientific communication producing institutions from rich and developing societies have come together even to levels of country representations to create an Open Access environment. UNESCO has declared Open Access an essential element of progress, it strongly supports unrestricted OA to all its resources related to development issues, which are made available online for use for free by all.

On the role of UNESCO in the Open Science movement, it is noted the organization's Recommendations (Z.K. Shinwari): "Emanating from the Organization's supreme governing body, recommendations are intended to influence the development of national laws and practices".

Several recommendations were drafted including: International and regional science bodies to take leadership to mobilize science for disaster risk reduction partnerships for all stakeholders by reducing the knowledge gap, sharing values and promoting the spirit of 'open science; Develop the delivery and trialing of innovation and science-based solutions to emerging global and regional challenges, drawing on the particular strengths and qualities of each partner or stake holder; Develop policies to avoid Scientific misconduct –

fabrication, falsification, or plagiarism (FFP); regulatory framework for equitable pricing; tools for monitoring and Finding new funding ways/mechanism to intensify Open Science.

The above recommendations were enriched by the Draft UNESCO Recommendation on Open Science (as in April 2021) to build a global consensus, which the important component considerations on access to digital publications once endorsed by the Member states of UNESCO at the next UNESCO General Conference in November 2021 (H. Thulstrup).

Definition of Open Science for UNESCO Recommendation on Open Science:

Open Science is defined as "an inclusive construct that combines various movements and practices aiming: to make scientific knowledge openly available, accessible and reusable for everyone; to increase scientific collaborations and sharing of information for the benefits of science and society; to open the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community"**;** access to scientific knowledge and data should be as open as possible.

Access restrictions are only justifiable on the basis of: national security, confidentiality, privacy, protection of intellectual property rights, secret indigenous knowledge and endangered species.

Areas of Action of Open Science in UNESCO Recommendation on Open Science:

1. Promoting a common understanding of Open Science, associated benefits and challenges, as well as diverse paths to Open Science;

2. Developing an enabling policy environment for Open Science;

3. Investment in Open Science infrastructures and services;

4. Investing in human resources, education, digital literacy and capacity building for Open Science;

5. Fostering a culture of Open Science and aligning incentives for Open Science;

6. Promoting innovative approaches for Open Science at different stages of the scientific process;

7. Promoting international and multistakeholder cooperation in the context of Open Science and in view of reducing digital and knowledge gaps.

3. Open Access Areas and Wider Openness

Open Access is a complex system and rapid paradigm to change. OA is not only for publications but also in data collections. So that the area and market of OA is still widely open. The download indicators for manuscript and books identified to give also the advantage to the writers (J. Fox).

The quality of OA is important, and should make wider openness to open science, as suggested:

• OA worlds have to be explored: different models and standards, different national agendas, different data analytics, which all shaped by strong competition from commercial interests.

• The research funders and policy makers should develop policies along with proper funding mechanism to ensure all research contributions

arising from their funding are available to everyone, everywhere, without any barriers to access / restrictions on reuse; develop funding mechanisms to support the development of open, interconnected and distributed scholarly publication infrastructures and maintenance (B. Juliarto).

- Adopt user and budget-friendly submission systems like "SciOne" (Free for ACSE members) to not only manage submissions but also support editorial procedures, peer-review and preprints; Embrace the new state of the art technological solution to facilitate post publishing issues inclusive of but not limited to indexing, archiving, article matrix, etc.; Initiate capacity building program to well equip the scholarly publishing community in terms of industry knowledge, current & future challenges and their appropriate solutions (M. Sayab).
- The way journals are currently rated through index (such as Q1, Q2, etc.) as well as citation based should be reviewed, and additional system for rating based on local system should be developed too (A. Sasongko).

4. Predatory Publishers

The study on Combatting Predatory Academic Journals and Conferences (A.S. Bin Tariq) conducted by Inter Academy Partnership (IAP) has the following objectives:

- Define predatory and unethical practices in academic journals and conferences;
- Gauge their extent and impact;
- Understand their root causes;

- Examine efforts to-date to combat predatory journals, publishers and conferences around the world;
- Provide concrete recommendations for addressing the problem.

5. Preliminary Findings and Conclusions

The initial preliminary findings and conclusions below are revealing and worth attending to by institutions and countries around the world:

- Predatory journals and conferences are on the rise and becoming increasingly sophisticated.
- They are permeating many geographies, disciplines and career stages: no-one can afford to be complacent.
- (Post) pandemic working practices may further exacerbate predatory practices.
- Distinguishing between predatory, poor quality and unethical publishing practices is difficult –a spectrum approach is more appropriate.
- Raising awareness and understanding of predatory journals and conferences appears to be the primary intervention to prevent researchers falling prey to them.
- The commercial interests of the publishing industry are perceived to be the main challenge.
- To eliminate root causes, we need to go further and work together globally to:
  - revise conditions for recruitment and career progression;
  - regain ownership and control over academic publishing (may be some kind of global governance structure);

- promote alternative economic models of (open access) publishing e.g., that in Latin America, where academic publishing is fully not for profit or that in high energy physics, where literally everything is OA as preprints on arXiv (OA repository of electronic preprints and post-prints, which materials are not peer reviewed) and the journals are also open access through SCOAP3.
- make open peer review the norm, so that sloppy or non-existent peer review is difficult.

At this juncture, AASSA, AIPI, IAP, ASSA, through the intensive discussions on Webinar Series, hereby recommend that even though the initiative conducting the study was taken previously by many organizations in science and engineering, the findings shall lead to:

1. Proposing the formation of an 'Asian Voice on Open Access (AVOA)' Working Group that should: 1) continue to monitor developments in Open Access and 2) produce statements that reflect these developments for the majority of students, scholars and researchers in the region. AVOA would be able to support and match other European and American voices in this critical international dialogue.

2. Increasing the accessibility and impact of national publishing by adoption or at least piloting a diversity of open access publishing solutions. The rapidly changing scholarly ecosystem provides the opportunity to think about national programs that could have significant benefit to the researchers and the investment made by the government in the nation universities. Exploring holistically the infrastructure required for open access could include considering case studies from other countries.

3. Providing the platform system and application applied for publication of journals / proceedings / e-books in the open access system, as well as the sustain of ICT infrastructure. This is important due to the high cost of maintenance and on top of the publication and publishers cost.

4. Recommendations affecting movements against all predatory scientific publishers in all sciences, i.e., including Social Sciences and the Humanities.

5. Maintaining (periodical updating) the lists of standard journals by the AASSA Member national academies (administered by expert committee/s) or by a centralized agency with shared access to all scholars, keeping away predatory and substandard journals to safeguard scholars from falling pray of predatory and substandard journals.

Recommended at the closing of the Webinar,

Drafted and circulated to the Final Recommendations,

The Organizing Committees & Speakers

Indonesian Academy of Sciences
National Library Building, Floor 17-18
Jalan Medan Merdeka Selatan No. 11, Jakarta 10110