Kotilava -seminar

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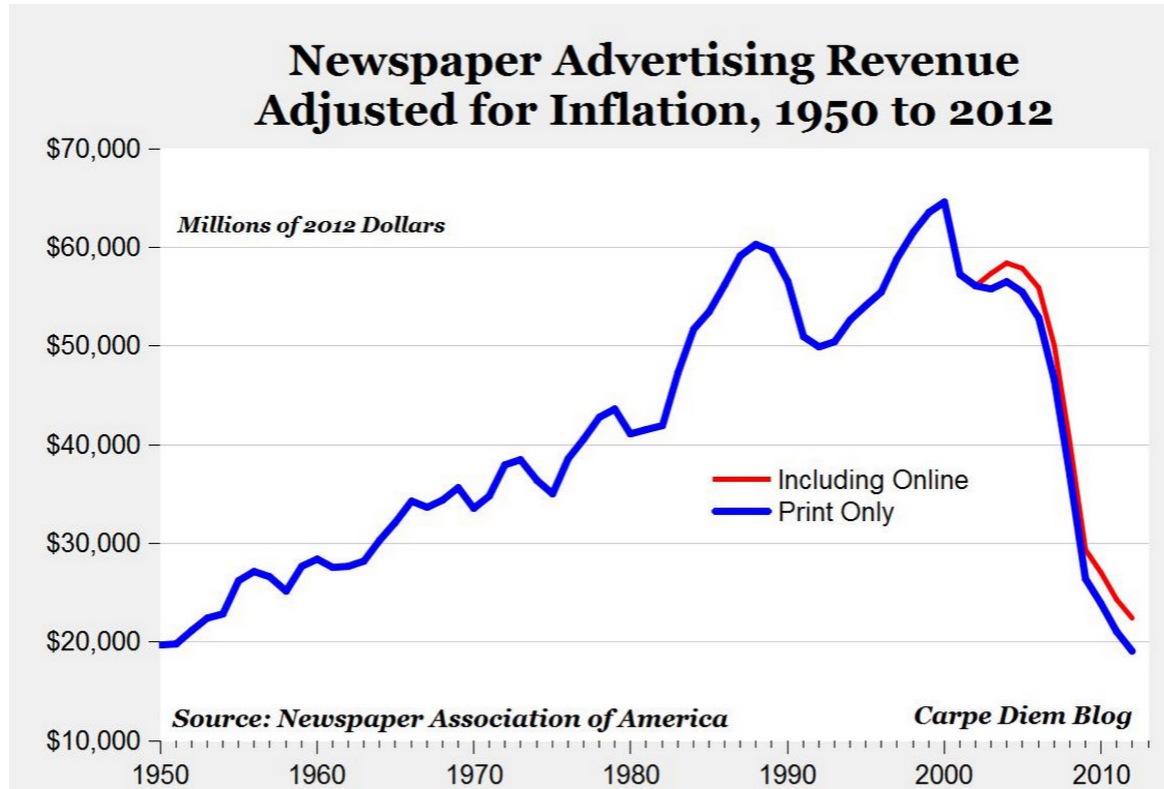Tuesday 24th of May 2016

Digitalization disrupts all branches of industry

Newspaper Advertising Revenue Adjusted for Inflation, 1950 to 2012

Open Science and Research 2009-2017

Research Data Survey Initiative TUTA

Finnish Research Data Initiative TTA

2011- 2013

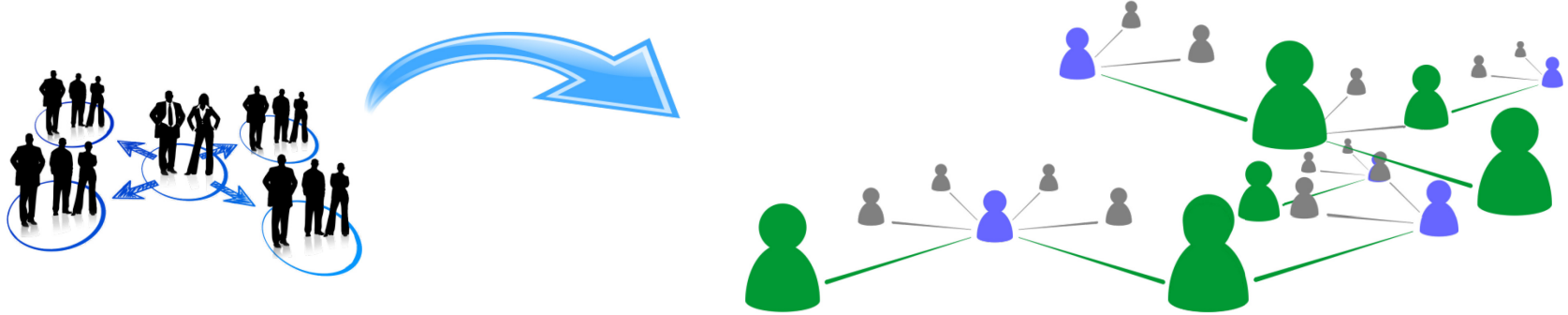**Open Science and Research Initiative ATT**

2014

The objectives of the Open Science and Research Initiative (ATT) are to make Finland a leading country for openness in science and research by 2017

Open Science and Research Roadmap 2014 – 2017.
http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2014/liitteet/okm21.pdf?lang=fi

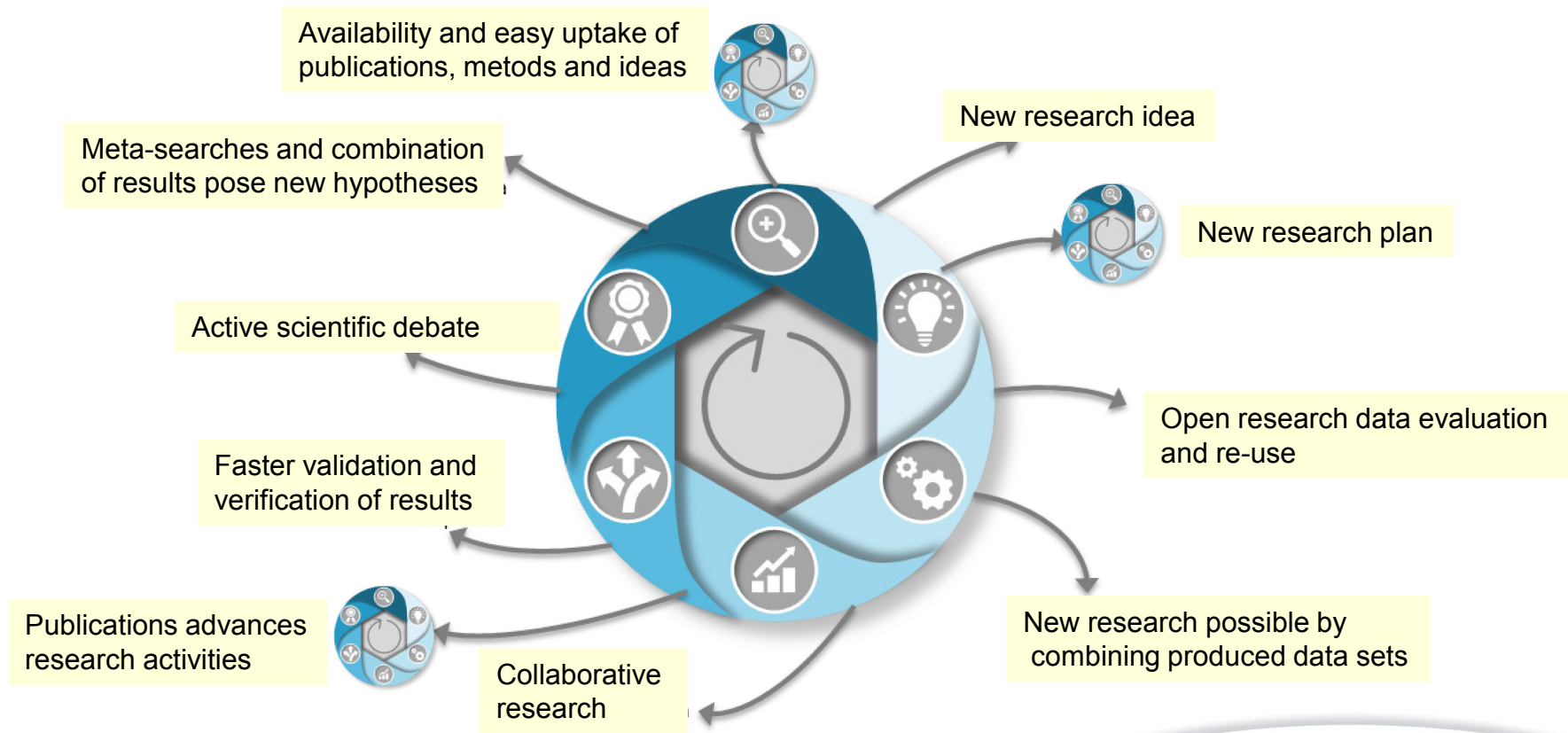# Vision 2017: Open research leads to surprising discoveries and creative insights

✓ Knowing how to harness the opportunities
✓ Good basic structures and services

➢ Openness and repeatability of science and research
➢ New opportunities for all stakeholders

Science accelerator

Availability and easy uptake of publications, metods and ideas

New research idea

Meta-searches and combination of results pose new hypotheses

New research plan

Active scientific debate

Open research data evaluation and re-use

Faster validation and verification of results

Publications advances research activities

New research possible by combining produced data sets

Collaborative research

The ATT strategy group set indicators for monitoring the progress

Open access of publications in the EU assessment
- 65% in 2017
- 75% in 2018
- 90% in 2020
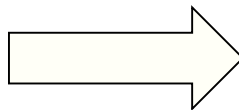
In the EU "Call for Action" the set target is 100% by 2020

Doctoral programs with open science training
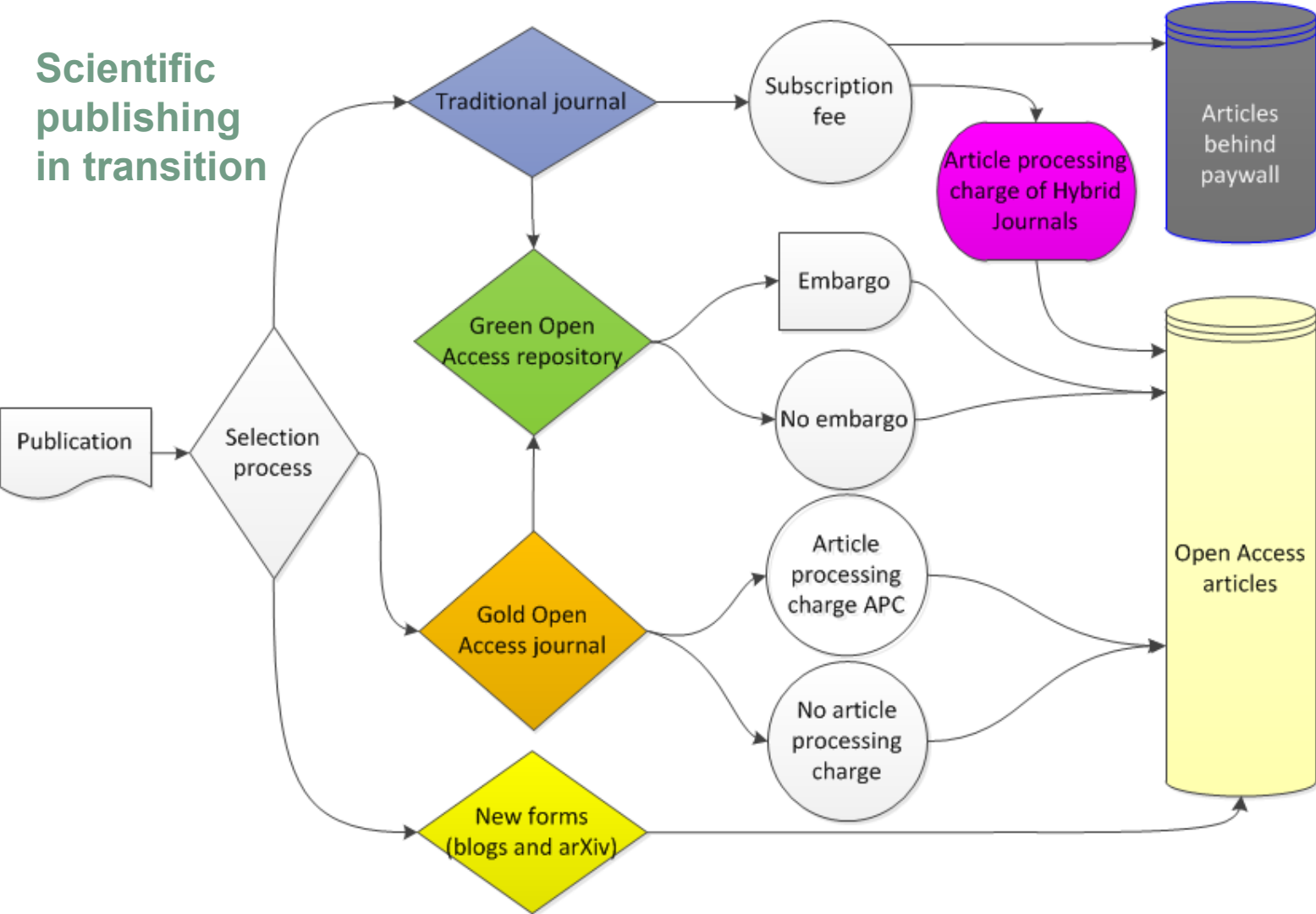- 90% of programs in 2018
- 100% of programs in 2020

The number of organisations at the highest level in the analysis of openness of the operational cultures (openness has become a strategic strength)
- 10 % of HEIs in 2017
- 25% of HEIs in 2018
- 50% of HEIs in 2020

Of new datasets
- 25% are licenced in 2017 and 30% in 2018
- In 2020 50% of new datasets are licenced and their metadata are found in national metadata catalogues

Scientific publishing in transition

Publication → **Selection process**

- **Traditional journal** → **Subscription fee** → Articles behind paywall
  - → Article processing charge of Hybrid Journals → Open Access articles
- **Green Open Access repository** → **Embargo** → Open Access articles
  - → **No embargo** → Open Access articles
- **Gold Open Access journal** → **Article processing charge APC** → Open Access articles
  - → **No article processing charge** → Open Access articles
- **New forms (blogs and arXiv)** → Open Access articles

In 2014 of the journals provided by the big publishers:

- 13 % full OA journal
- 69 % hybrid journal
- 19 % full subscription journal.

Tajua –project
Piia Naukkarinen, 2016

Most important developments in 6 research workflow phases

	Discovery	**Analysis**	**Writing**	**Publication**	**Outreach**	**Assessment**
Trends	social discovery tools	datadriven & crowdsourced science	collaborative online writing	Open Access & data publication	scholarly social media	article level (alt)metrics
Expectations	growing importance of data discovery	more online analysis tools	more integration with publication & assessment tools	more use of "publish first, judge later"	use of altmetrics for monitoring outreach	more open and post-publication peer review
Uncertainties	support for full-text search and text mining	willingness to share in analysis phase	acceptance of collaborative online writing	effect of journal/publisher status	requirements of funders & institutions	who pays for costly qualitative assessment?
Opportunities	discovery based on aggregated OA full text	open labnotes	semantic tagging while writing/citing	reader-side paper formatting	using repositories for institutional visibility	using author-, publication- and affiliation-IDs
Most important long-term development	multidisciplinary + citation-enhanced databases	collaboration + data-driven	online writing platforms	Open Access	more & better connected researcher profiles	importance of societal relevance + non-publication contributions
Potentially most disruptive development	semantic/concept search + contextual/social recommendations	open science	collaborative writing + integration with publishing	circumventing traditional publishers	public access to research findings, also for agenda setting	moving away from simple quantitative indicators

Ministry of Education and Culture
Ministère de l'Éducation et de la Culture

HowOpenIsIt?

OPEN ACCESS SPECTRUM

Journals can be more open or less open, but their degree of openness is intrinsically independent from their:

- Impact · Prestige · Quality of Peer Review
- Peer Review Methodology · Sustainability
- Effect on Tenure & Promotion · Article Quality

SPARC
www.arl.org/sparc

PLOS
www.plos.org

OASPA
www.oaspa.org

OPEN ACCESS

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

How open Is It? Open Access Spectrum. 2012 SPARC and PLOS, licenced under CC BY

Figure 1: How OA services enable OA publishing, OA archiving and policy compliance
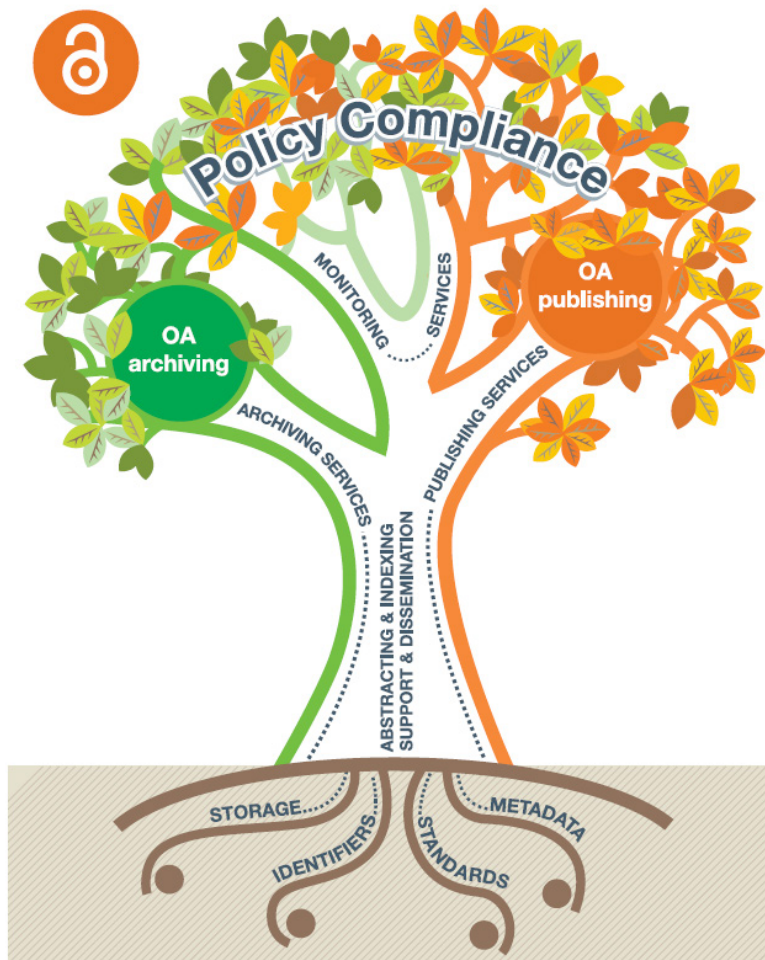
Business models for Open Access publishing

- Freemium

- Community publishing

- Subsidisation by one or many institutions

- Hard copy sales and print on demand

- Article processing charges

- Advertiser or sponsor model

- Pay what you want

- Disjuncted Journal Model

- etc.

BUSINESS PLAN TOOLKIT Publishing an Open Access Journal. SPARC Europe 2016 CC-BY 4.0

Open Access Publishing Services – OPuS 2014. http://www.sampan.eu/downloads/OPuS-VisionOnTheFutureOfAcademicPublishing.pdf

How to improve the academic publication market?

1. Improve transparency of costs.
2. Enable greater competition in the publishing market. Research institutions will have to make greater efforts to establish non-commercial publication models of high quality.
3. Increase cross-border cooperation between funders, including common funding models.
4. Make Open Access part of the official government policy.

Falk Reckling 2015. Open Access Publishing at Springer.
http://scilog.fwf.ac.at/en/article/2835/open-access-publishing-at-springer

Some key reasons for switching to OA publishing

- Citation advantage for authors

- Helps authors to comply with funder policies

- New income possibilities enabled by digitization

- KOTILAVA -project

Want to know more?

Web:
Openscience.fi/

Email:
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Twitter:
@AvoinTiede

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facebook.com/avointiede