

New trends in publishing, including open access and their effects on the dissemination of scientific research

**Hooman Momen
Editor**

Bulletin of the World Health Organization



**World Health
Organization**

Open Access

- Free to access
- Free to reuse
 - Creative Commons license
- Academic spring
 - OA has become mainstream - Support at the highest levels
- Research Works Act
 - Sought to reverse NIH policy and stop any other Federal Agency developing similar policy
- Cost of Knowledge – the Elsevier boycott
 - Almost 13k signatories



OA Support

- OA in UK - *“Our starting point is very simple. The Government believes that published research material which has been publicly financed should be publicly accessible – and that principle goes well beyond the academic community” - David Willetts, Minister, BIS*
- OA in Europe - Commission will make open access to scientific publications a general principle of Horizon 2020
- OA in the US - NIH Public Access policy
- OA in Latin America- SciELO
- OA at IGOs - World Bank



Challenges regarding financing

- Article publishing charge
- Sponsorship
 - academic institution
 - governmental organization
 - scientific society
- Advertising or commercial sponsorship
- A combination of the above
 - Hybrid Journals



New OA options

- Provision of funding to meet OA costs has encouraged growth of new OA journals
- MegaJournals such as PLoS One – Over 2500 published articles per month - “Rise of the clones”
 - The American Society for Microbiology’s mBio
 - The Genetics Society of America’s G3
 - BMJ Open
 - Company of Biologists Biology Open
 - Nature’s Scientific Reports
 - The Royal Society’s Open Biology
 - Cell Press’s Cell Reports
 - SAGE Open



PeerJ

- An Open Access, peer-reviewed, scholarly journal.
- Selects articles based only on a determination of scientific and methodological soundness, not 'novelty' or 'interest'.
- Operates a 'Lifetime Membership' model.
 - 3 Membership tiers, each conferring different rights.
- Encourages Open Peer-Review
 - authors given the option to post the full peer-review history of their submission alongside their published article



PLOS Currents

- PLOS Currents is an innovative, online publication channel, peer-reviewed; citable; publicly archived in PubMed.
- A single, integrated direct-authoring and publishing platform - complete control over the formatting and appearance of Author published work.
- Streamlined peer review process
- Submission reviewed in a matter of days and published immediately after editorial acceptance
- Uses Annotum (WordPress) platform



- Funders taking responsibility for publishing:
 - Howard Hughes Medical Institute, Max Planck Society, Wellcome Trust
 - Publication costs are research costs
- Current publishing system – particularly the top tier journals –not working in the best interest of researchers
- Driving innovation in the way research is communicated
 - publish outstanding science under an open-access license
 - create an editorial process that is decisive, fair and efficient
 - Fully utilize digital media in the presentation of new research

On-line journals

- No problem of space
 - A constraint for print journals
- Unlimited use of colour images, figures, tables
- No need for limits on references (word counts?)
- Access to original data
- Multimedia (Audio/podcasts and Video)
- Hyperlinking and Text mining



Plagiarism

- Online publication - easier to plagiarize and be detected
- Software programs to detect plagiarism
 - free and priced
 - Crossref Crosscheck
- Theft of ideas is unethical
 - Debate over reuse of content for results and methods
- Self-plagiarism
- Digital manipulation of images
 - ranges from enhancing the clarity of results presented to producing fraudulent data.



Article-Level Metrics

- Citations
 - ISI, Scopus, Google Scholar, PubMed Central, CrossRef
- Article usage
 - Page views, downloads
- Media and blog coverage about the article
- Social tools
 - Social bookmarks e.g. Connotea, Twitter, Facebook etc.
- Reader evaluation

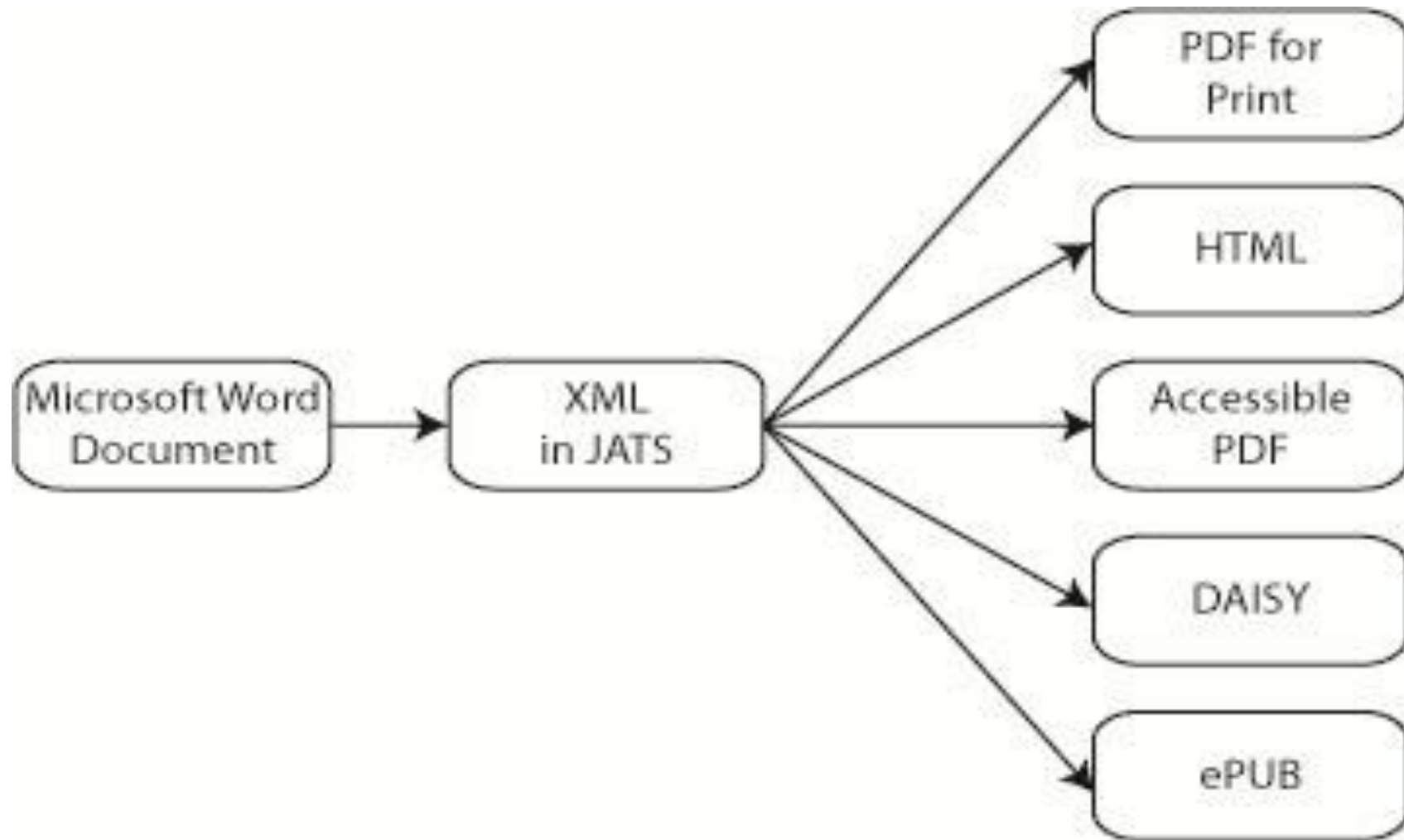


Bulletin of the World Health Organization

- International journal of public health
- First published in 1948
- Focus on developing countries
- Open-access policy means entire contents accessible online
- Manuscripts reviewed internally by editorial advisors then sent out for external peer review

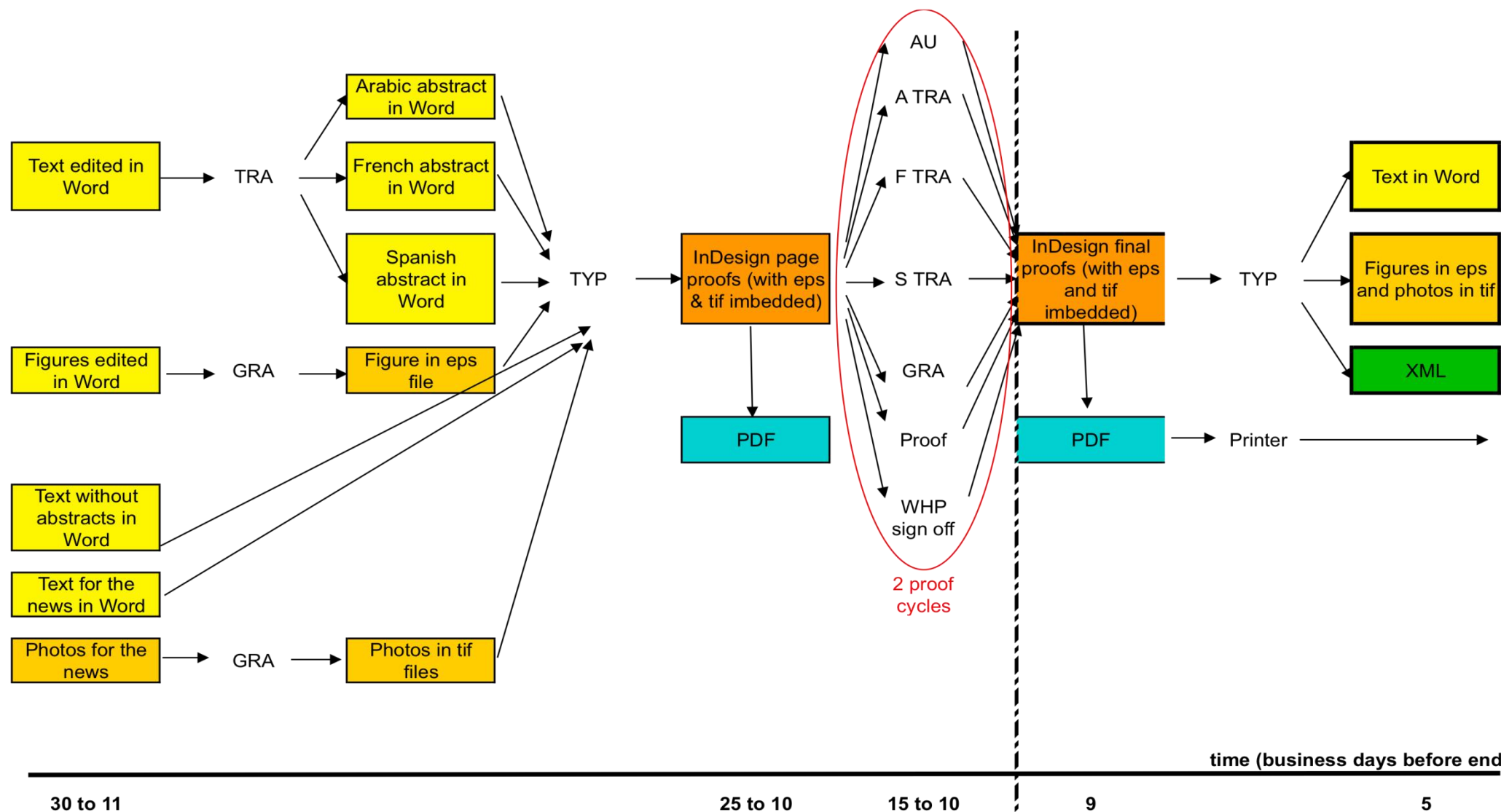


XML-based single-source workflow



Migration from our “old” workflow

BULLETIN WORKFLOW



Resources for Editors

- Community for Academic Reviewing, Publishing and Editorial Technology (CARPET)
 - <http://www.carpet-project.net/en/>
- WAME
 - Resources for Medical editors
 - <http://www.wame.org/resources>
- COPE
 - Code of Conduct and Best Practice Guidelines for Journal Editors <http://publicationethics.org/about>

