

Welcome to EMUG 2016







Journals are <u>not</u> in the content business!

Richard Wynne, VP Sales and Marketing, Aries Systems http://orcid.org/0000-0002-9217-0407

Journals # Content

Journals = Assertions

Assertions made by journals:

- This content is worth reading
- This content is novel
- This content is not plagiarized
- This content has been through peer review
- These are the authors and their institutions
- These citations are accurate
- The conclusions are supported by the data
- Compliance with animal, human studies...
- The data are statistically coherent (maybe)
- Etc.....

Assertions have been/are implied by journal format

³Spatial and Temporal Characteristics of Summer Precipitation over Central Europe in a Suite of High-Resolution Climate Models

PETTER LIND, DAVID LINDSTEDT, AND ERIK KJELLSTRÖM

Swedish Meteorological and Hydrological Institute, Norrköping, and Department of Meteorology, Sweden Stockholm University, Stockholm, Sweden

COLIN JONES

National Centre for Atmospheric Science, University of Leeds, Leeds, United Kingdom, and Swedish Meteorological and Hydrological Institute, Norrköping, Sweden

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ABSTRACT

High-impact, locally intense rainfall episodes represent a major socioeconomic problem for societies worldwide, and at the same time these events are notoriously difficult to simulate properly in climate models. Here, the authors investigate how horizontal resolution and model formulation influence this issue by applying the HIRLAM-ALADIN Regional Mesoscale Operational NWP in Europe (HARMONIE) Climate (HCLIM) regional model with three different setups: two using convection parameterization at 15- and 6.25-km horizontal resolution (the latter within the "gray zone" scale), with lateral boundary conditions provided by ERA-Interim and integrated over a pan-European domain, and one with explicit convection at 2-km resolution (HCLIM2) over the Alpine region driven by the 15-km model. Seven summer seasons were sampled and validated against two high-resolution observational datasets. All HCLIM versions underestimate the number of dry days and hours by 20%-40% and overestimate precipitation over the Alpine ridge. Also, only modest added value was found for gray-zone resolution. However, the single most important outcome is the substantial added value in HCLIM2 compared to the coarser model versions at subdaily time scales. It better captures the local-to-regional spatial patterns of precipitation reflecting a more realistic representation of the local and mesoscale dynamics. Further, the duration and spatial frequency of precipitation events, as well as extremes, are closer to observations. These characteristics are key ingredients in heavy rainfall events and associated flash floods, and the outstanding results using HCLIM in a convection-permitting setting are convincing and encourage further use of the model to study changes

We got away with it for 350 years but the game is up!

(1) Numb. I. PHILOSOPHICAL TRANSACTIONS.

Munday , March 6. 166%.

The Contents.

An Introduction to this Traft. An Accompt of the Improvement of Optick Glaffes at Rome. Of the Objervation made in England, of a Spet in one of the Belts of the Planet Jupiter. Of the motion of the late Comet pradicted. The Heads of many New Objervations and Experiments, in order to an Experimental History of Colds together with fome Thermometrical Difeourfes and Experiments. A Relation of a very odd Mouffrons Calf. Of a piculiar Lead. Ore in Germany, very wfeful for Eflays. Of an Hungarian Bolus, of the same effett with the Bolus Armenus. Of the New American Whole fifting about the Bermudas. A Narative concerning the fuccess of the Pendulum-watches at Sea for the Longitudes ; and the Grant of a Patent thereupon. A Catalogue of the Philosophical Books publifles by Monfieur de Fermat, Counfellour as Tholoufe, lately dead.

The Introduction.



Hereas there is nothing more necessary for promoting the improvement of Philosophical Matters, than the communicating to such, as apoly their Studies and Endeavours that way, fuch things as are difcove-

red or put in practile by others; it is therefore thought fit to employ the Press, as the most proper way to gratifie those, whose engagement in such Studies, and delight in the advancement of Learning and profitable Discoveries, doth entitle them to the knowledge of what this Kingdom, or other parts of the World, do, from time to time, afford, as well

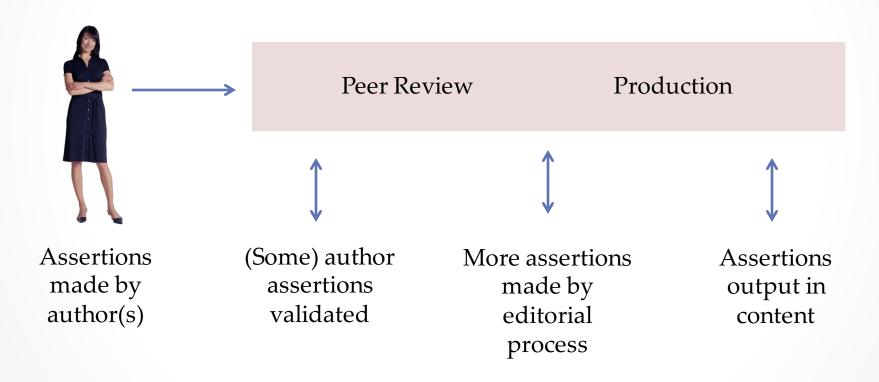
1665 – Henry Oldneburg – Editor and Publisher

The "Assertion Business" is changing

- Easier for false/inaccurate assertions to be made.
- Questionable/loose assertions can be more easily surfaced (Retraction Watch, etc.) thereby damaging brand.
- Format is no longer a guarantee of assertion quality.
- Funders want more granular, accurate and reliable assertions.
- Assertions need to be machine readable as well as human readable. Explicit - not just implied from format.

Opportunity or threat?

Don't think: "Content Workflow" Think: "Assertion Workflow"

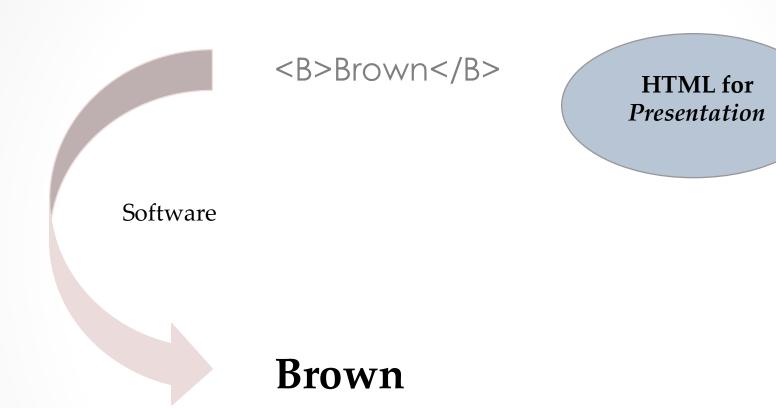


Creating "assertions" is not the same as creating format

Retooling for "Assertion Workflow"

Semi-Technical Interlude

Brown



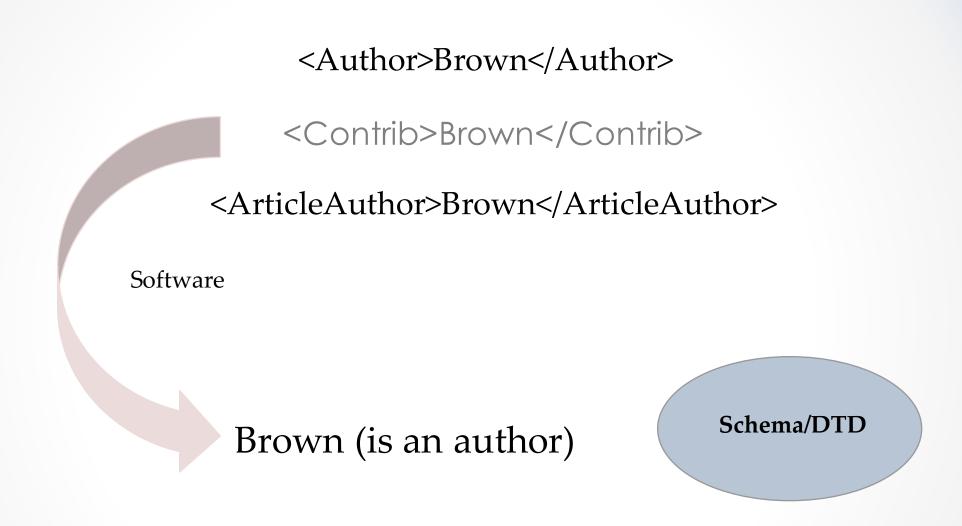


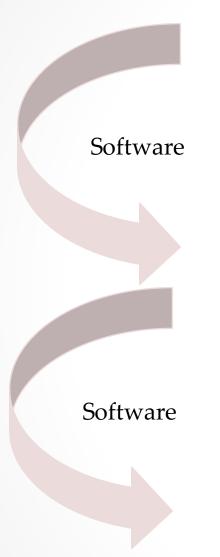
<a href="mailto: ArticleAuthor ArticleAuthor

Software

?

Semantic Tagging





<Contrib>Brown</Contrib>

Brown (is an author)

Brown

Brown



Style Sheet

Presentation rules: e.g. display authors in bold text

If software could talk:

I see this text string "brown" has been semantically tagged, let me check the Schema to see if I recognize that tag.

I'm so excited! I recognize that tag, it means the text string "brown" is an author.

Great. Now, let me take a look at that style sheet I keep handy. It tells me that author names need to be presented in bold, let me tag this text string with HTML so that readers see it in bold.

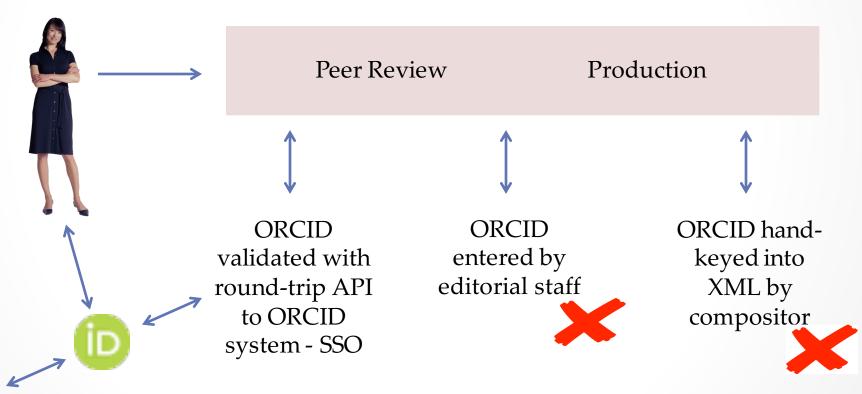
That worked, now on to the next text string....

End of Semi-Technical Interlude

XML – just a fancy way to do formatting?...

- Semantic tagging using a standardized schema/DTD (JATS) has allowed us to reliably assert that "Brown" is an author for display purposes.
- But which "Brown" author?
- A persistent identifier (ORCID in this case) can allow us to make an "assertion" that is much more valuable to our customers.
- But how to generate that assertion reliably?

"Assertions Workflow" with identifiers (e.g. ORCID)



Institution: yes this author "Brown" belongs to "North Eastern University" Ringgold

Identifiers and Taxonomies are essential for improving assertions

- Who did the research?
 - o ORCID
- What did they do?
 - CRedit
- Who do they work for?
 - o Ringgold (and others)
- Who funded the research?
 - Open Funder Registry (FKA: FundRef)
- What did they cite?
 - o DOI

Other tools improve assertions

- This content is not plagiarized
 - o iThenticate/Crosscheck
- This content is novel
 - o Similarity check / editorial analysis
- The citations are accurate
 - Automated reference checking
- This content has been through peer review
 - o PRE (AAAS)
- This content will have impact
 - o Predictive Bibliometrics (Meta)
- Conflicts of interest have been disclosed
 - Convey

Now you have good "assertions" your content can "talk"!



Summary/Recommendations

- "Assertions" are a way for journals to create value, especially in a world where content "wants to be free".
- Creating "assertions" is not the same as creating format.
- Creating "assertions" is not the same as creating format.
- Think "assertion management system" not "content management system".
- Persistent Identifiers (PIDs)/Taxomonies and APIs are critical for assertion creation.
- Think about how to monetize "assertions" independently of how you monetize content

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