

The Charlesworth Group **Digital Workflow Overview**

SciELO, Editors Meeting
Thursday, July 12, 2012



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Supporting your publishing evolution

Agenda

- ✓ Explain who we are
- ✓ Explain and show digital workflows (and their benefits to you)
- ✓ Listen and get to know you



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The Charlesworth Group

A family firm, founded in 1928, specializing in:

- **Innovation**: Production workflow & publishing services
- **Globalization**: Sales & strategy for the China market
- **Editing & Education**: For authors & publishers

With offices in



UK



US



China



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Sample of our clients

- Professional Societies
- Associations
- Not-for-Profits
- University Presses
- Commercial Publishers

Following the recent publication of the Special Libraries Association (SLA) Biomedical and Life Sciences Division Top 100 Journals, Charlesworth represents 1/3 of Top 100 Journals in Biology and Medicine List

- AAPH (American Association of Public Health)
- ACP (American College of Physicians)
- AGU (American Geophysical Union)
- Allen Press Inc
- AMA (American Medical Association)
- ASCO (American Society of Clinical Oncology)
- ASN (American Society for Nutrition)
- ASPB (American Society of Plant Biologists)
- Chinese Journal of Oceanography
- Clinics Journal
- CrossRef
- ESA (Ecological Society of America)
- GSA (Geological Society of America)
- IMF (International Monetary Fund)
- NPG (Nature Publishing Group)
- NEJM (New England Journal of Medicine)
- NASP (National Association of School Psychologists)
- Maney Publishing
- MedicalSphere Publishing Inc
- PLoS (Public Library of Science)
- PNAS (National Academy of Sciences)
- Purdue University Press
- Royal Society of Chemistry
- SGM Society of General Microbiologists
- Columbia University Press
- United Nations Press
- World Bank



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Examples of XML Workflow Journals



PLOS



Nature

Clickstream Data Yields High-Resolution Maps of Science
 Authors: John W. Kim, Robert A. Taylor, ...
 Abstract: ...
 Introduction: ...
 Discussion: ...

High-energy extracorporeal shockwave therapy in a patellar tendon animal model: a vascularization-focused study
 Authors: ...
 Abstract: ...
 Introduction: ...
 Discussion: ...

The cancer genome
 Authors: ...
 Abstract: ...
 Introduction: ...
 Discussion: ...



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3 Ways we can work with you

1. As a service provider, we create pages/layout/XML, from author manuscript to completed pages and online XML
2. Cloud based interactive workflow, you can use system/technology and create pages yourself
3. XML only creation from completed paged PDF's from you

The underlying technology and process is similar



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A few fundamentals: XML

eXtensible Mark-up Language (XML) is a set of “tags” that put codes around content in a simple way that is readable by both machines and humans.

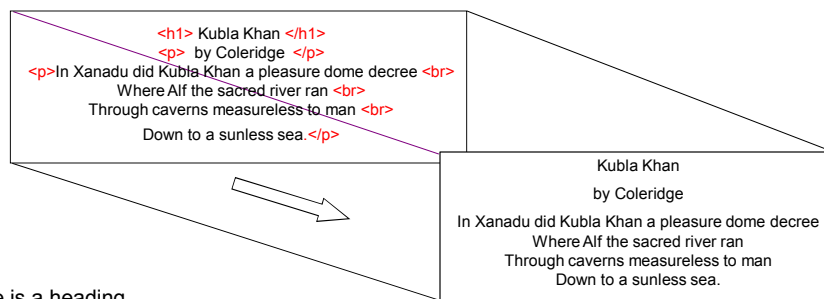
XML is applied according to a set of industry-wide standard rules that allow each part of a document to be identified in a structured way that makes information simple to find and use on the Internet.

```
<name> <firstname> Adrian </firstname> <surname>
Stanley </surname> </name>
```



HTML

A set of tags and rules that describe how data displays



- There is a heading
- The heading is followed by two paragraphs
- The second paragraph has three line breaks in it



XML

A set of semantic tags readable by humans & machines

```

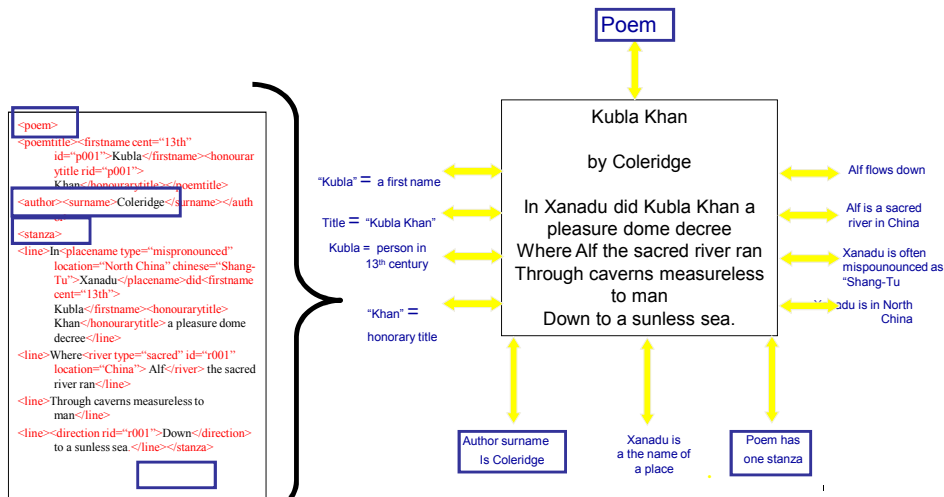
<poem>
<poemtitle><firstname cent="13th" id="p001">Kubla</firstname><honourarytitle rid="p001">
Khan</honourarytitle></poemtitle>
<author><surname>Coleridge</surname></author>
<stanza>
<line>In<placename type="mispronounced" location="North China" chinese="Shang-
Tu">Xanadu</placename> did<firstname cent="13th"> Kubla</firstname><honourarytitle>
Khan</honourarytitle> a pleasure dome decree</line>
<line>Where<river type="sacred" id="r001" location="China"> Alf</river> the sacred river
ran</line>
<line>Through caverns measureless to man</line>
<line><direction rid="r001">Down</direction> to a sunless sea.</line></stanza>
    
```



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XML adds information to information



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SciELO requires XML



Scientific Electronic Library Online

About SciELO

- About SciELO
- Bibliometric Indicators
- Access via WS, OAI and RSS

Search article

method: Entry one or more words: where:

Twitter

SciELO redesciELO

redesciELO hoje com experiênc 20 hours ago

redesciELO completa UFMG, na yesterday's

redesciELO Editoraçã a palestra yesterday's

SciELO Network

Book Collections

- Brazil

Journal Collections

- Argentina
- Brazil
- Chile
- Colombia
- Costa Rica
- Cuba
- Spain
- Mexico
- Portugal
- Venezuela
- Public Health
- Social Sciences

in development

- Bolivia

Browse journals

Search by journals

Entry one or more words:

By alphabetic list - all

A B C D E F G H I J K L M N O
P Q R S T U V Z

By subject - all

- Agricultural Sciences
- Applied Social Sciences
- Biological Sciences
- Chemistry
- Engineering
- Exact and Earth Sciences
- Geosciences

SciELO in numbers

- Site usage
- Citations
- Co-authors

959 Journals

26,050 Issues

382,334 Articles

8,177,622 Citations

New

Last Update - 11/jul/2012

120 Issues

By subject

Press Release

Soil temperat effects determ


Artigo analisa apoio social e

When experie case of the juv

PubMed Central also requires XML

NCBI Resources How To
My NCBI Sign In

Limits Advanced Journal List Help



PMC

PMC is a free full-text archive of biomedical and life sciences journal literature at the U.S. National Institutes of Health's National Library of Medicine (NIH/NLM).

Get Started

- [PMC Overview](#)
- [Users' Guide](#)
- [Journal List](#)
- [PMC FAQs](#)
- [PMC Copyright Notice](#)

Participate

- [Add a Journal to PMC](#)
- [Participation Agreements](#)
- [File Submission Specifications](#)
- [File Validation Tools](#)

Keep Up to Date

- [New in PMC](#)
- [PMC News Mail List](#)
- [PMC News RSS](#)

Other Resources

- [PMC International](#)
- [Open Access Subset](#)
- [E-utilities](#)
- [NLM LitArch](#)
- [PMC Citation Search](#)

2.4 MILLION Articles

are archived in PMC.

Content provided in part by:

1091	231	1733
<small>Full Participation Journals</small>	<small>NIH Portfolio Journals</small>	<small>Selective Deposit Journals</small>

NIH Public Access

- [NIH Public Access and PMC](#)
- [NIH Manuscript Submission System](#)
- [My Bibliography](#)
- [PMCID/PMID/NIHMSID Converter](#)

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XML allows content to be reused and repurposed

The diagram illustrates the reuse of content. At the center are two magazine covers: 'nature' with the headline 'NAME THAT ATOM' and 'TESOL Quarterly'. Three blue arrows point from these covers to different digital consumption methods: 'To reading in print' points to a woman reading a book; 'To reading online' points to a woman looking at a laptop; 'To reading on the go' points to a hand holding a smartphone and a hand holding a tablet. The background features images of people reading and a tablet displaying text.

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Going Electronic: *Charlesworth Group* AutoProof

The workflow diagram shows the process from a styled file to a ready-to-use PDF proof. It starts with a 'Styled File uploaded From peer review' (represented by a Word document icon). An arrow points to 'File received by Charlesworth Group'. Another arrow points to 'Document converted to XML'. A third arrow points to 'Paged using customized 3B2 template solution'. A final arrow points to a 'Ready-to-use PDF proof' (represented by a PDF icon). A large purple arrow at the bottom indicates the 'AutoProof timeline: 5-10 minutes'. The Charlesworth Group logo and 'AutoProof' branding are visible in the top right.

AutoProof timeline: 5-10 minutes

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Workflow with Charlesworth Group AutoProof

Raw Word document (.doc) directly from the author or Peer review system ready for styling

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Workflow with Charlesworth Group AutoProof

“Raw” Word Document

Styled Word Document

raw (.doc) → .rtf (styled)

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Workflow (con't)

Title

Author

Header

Figure

Styled

Interface between the intestinal environment and the nervous system

Abstract ATPase, cAMP, cholecystikins, EC, enterochromaffin, cAMP, cyclic adenosine triphosphatase, 5-HT, 5-hydroxytryptamine, CNS, central nervous system, NO, nitric oxide

Keywords intestinal environment, nervous system, visceral afferent, endocrine

Professors O Lindgren, Department of Physiology, Sahlgrenska University, Göteborg

Possible mechanisms by which the intestinal contents may influence afferent permeability of the intestinal epithelium

Diffusion We cannot have references in the abstract, can you insert reference No 1 in the list of references, at least in part, the reference of S-887 from EC cells.

It is well established that the sensitivity of the muscle spindles to afferent stimuli is controlled from the central nervous system (CNS) via afferent fibers influencing the so-called integrational muscle cells. One can envisage a similar CNS control of the sensitivity of the endocrine cells of the gastrointestinal epithelium, via receptors known to be present on endocrine cells.

Agonists of these receptors may change the sensitivity of endocrine cells to humoral stimuli by influencing their membrane potential.

Brush cells

These cells is a specialised type of epithelial cell scattered within the crypts of the lining of the respiratory and gastrointestinal tracts, so-called the "brush cells" or "microvillated cells". In the gastrointestinal tract, these cells have been found in the stomach and intestine and also in the excretory ducts of the gut bladder and pancreas. They are pear or bottle shaped with a broad apical surface (fig 2). An apical microvillar tuft is in contact with the lumen of the ducts. No granules of the type present in endocrine cells can be demonstrated in brush cells.[11]

Fig Name: g33449.F2.A

Figure 2 Schematic figure of a brush cell. The cell, located between enterocytes, has a bottle-like appearance. It lacks the granules at the basolateral part characteristic of endocrine cells.

Style menu options: Main, Article Info, FrontMatter, Main, Fig and Table, Symbol, HeadA, HeadB, HeadC, HeadD, HeadE, List1, List2, List3, ListParaMore, Remark, FootNotes, EndNotes, Reference, Quote, Para, ClearStyle.

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Workflow (con't)

XML

```

<clauth> <fname> B. C. H. </fname> <surname> Steele </surname> </clauth>
<clauth> <fname> A. </fname> <surname> Henzel </surname> </clauth>
<clauth> <fname> A. </fname> <surname> Atkinson </surname> </clauth>
<clauth> <fname> J. M. </fname> <surname> Tarascon </surname> </clauth>
<clauth> <fname> M. </fname> <surname> Armand </surname> </clauth>
                    
```

XML structure showing author names, titles, years, volumes, and pages.

XML

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Workflow (con't)

File to CW → Document converted (XML) → Paged customized (3B2)

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RSC

Advancing the Chemical Sciences

RSC Advances

PAPER

Electrocatalytic activity of carbon spheres towards NADH oxidation at low overpotential and its application in biosensors and biofuel cells†

Feng-Chao Yan, Jun-Yu Zhu, Bao-Hua Zhang, Li-Jiao Wang and Lan-Yang Wang

RSC Advances, 2012, Volume 1, Issue 1, 1-10

DOI: 10.1039/C1RA10001A

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View All Papers

Nature

SCIENTIFIC REPORTS

Experimental violation of the Leggett-Garg inequality under decoherence

Jin Shi, Qi Chen, Peng Li, Ke-Jia Zhu & Qing Guo

Nature, 2012, Volume 485, Issue 7396, 1-5

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JAMES

Journal of Advances in Modeling Earth Systems

Journal of Advances in Modeling Earth Systems, 2012, Volume 4, Issue 1, 1-10

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JAMES

Journal of Advances in Modeling Earth Systems

Journal of Advances in Modeling Earth Systems, 2012, Volume 4, Issue 1, 1-10

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Monte Carlo Spectral Integration: A Constant Approximation for Radiative Transfer in Large Eddy Simulations

Robert Pfeifer and Jörn Lieser

Journal of Advances in Modeling Earth Systems, 2012, Volume 4, Issue 1, 1-10

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Estimated microstructure of brooders and hatchability of growth traits for large yellow croaker (*Larimichthys crocea*) using macroestimates†

LIU Tingting, WEI Peng, LIU Wansheng, ZHANG Chen, WU J. H., CUI Shuang, LIU Yi, SUO Guohua, LIU Rui, CUI Chao, CHENG W. J. & LIU W. Q.

Journal of Advances in Modeling Earth Systems, 2012, Volume 4, Issue 1, 1-10

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4. Finite matrix approximation is adequate for radiative transfer simulations for large eddy simulations


The finite matrix approximation (FMA) is introduced as an efficient alternative to Monte Carlo spectral integration (MCSI) for large eddy simulations (LES). A series of test cases are conducted to validate the FMA in terms of accuracy and efficiency. The results show that the FMA is accurate and efficient for radiative transfer simulations in large eddy simulations. The FMA is recommended for radiative transfer simulations in large eddy simulations.

Estimated microstructure of brooders and hatchability of growth traits for large yellow croaker (*Larimichthys crocea*) using macroestimates†

The estimated microstructure of brooders and hatchability of growth traits for large yellow croaker (*Larimichthys crocea*) is estimated using macroestimates. The results show that the estimated microstructure is accurate and efficient for radiative transfer simulations in large eddy simulations. The estimated microstructure is recommended for radiative transfer simulations in large eddy simulations.

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Examples of AutoProof Customized Pages: Books, Catalogues, Reports, Meeting materials




New Frontiers in Skeletal Research: Bone, Fat and Brain Connections

ASBMR 31st Annual Meeting
September 11-15, 2009 | W. Satauli Convention Center | W. Denver, CO

INTERVENTIONS
For Educators and Educator Preparation in a Diverse World (including ELL)


THE PSYCHOLOGY OF MULTICULTURALISM IN THE SCHOOLS



Meeting materials include:


- Abstract books
- Brochures
- Conference schedules
- Handouts
- Conference proceedings

All of which can be updated up to the last minute before printing!



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Editor-Driven AutoProof Workflow



Editor



CW conversion software




Editor uploads styled Word RTF or XML file and graphics over web to CW server


5-10 minutes

Editor downloads PDF proof and checks. Process can be re-run if needed.


graphics




Styled Word RTF file converted to XML



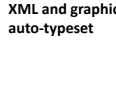
XML and graphics auto-typeset




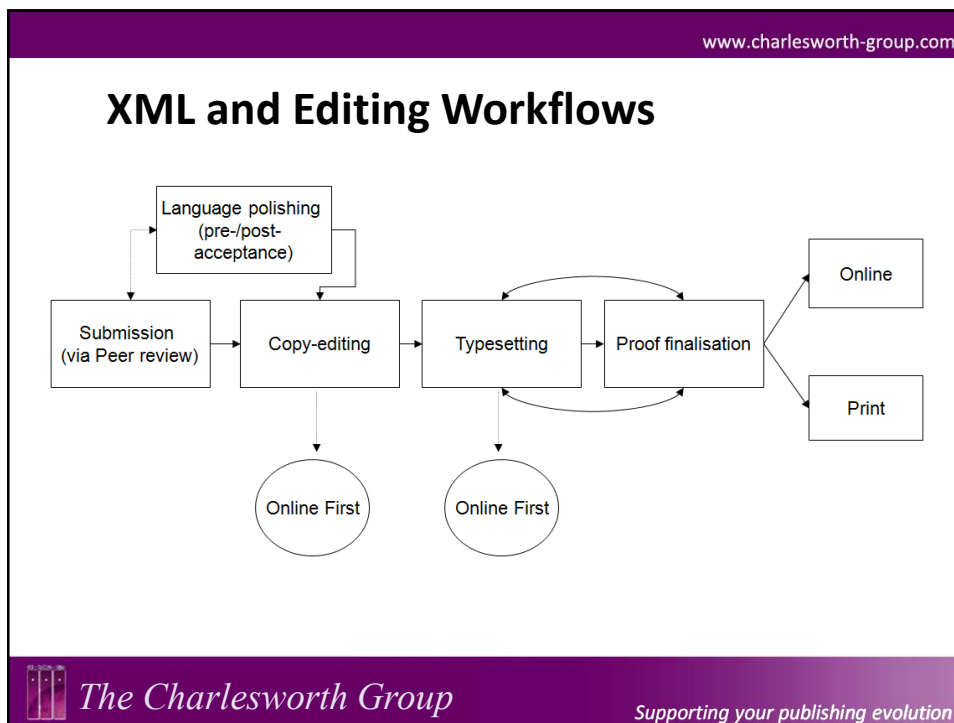
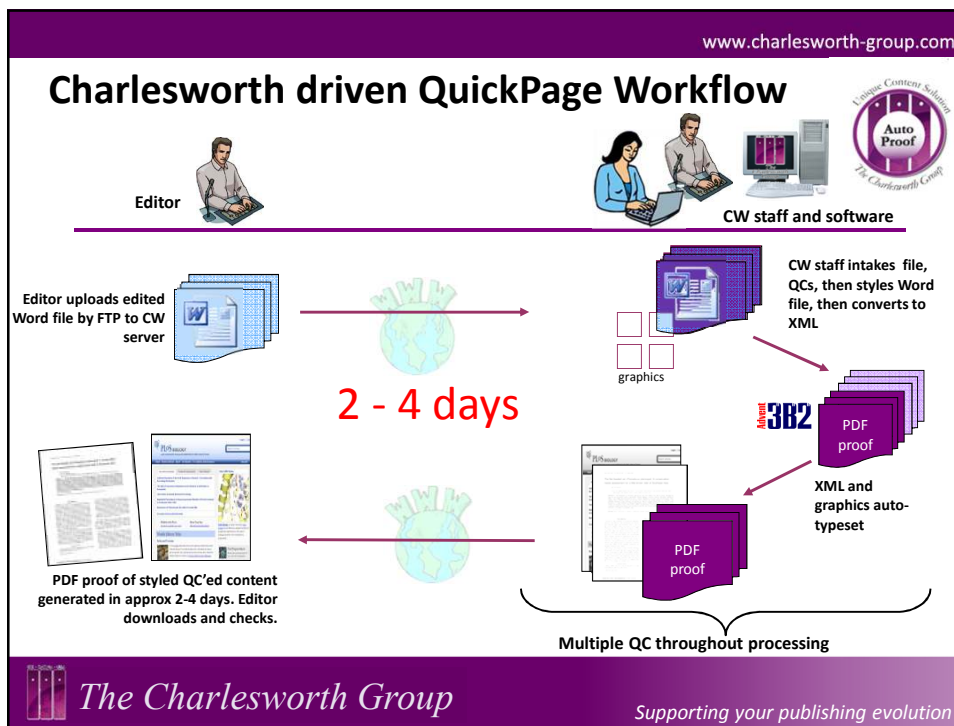
PDF proof



PDF proof




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Online Tracking System

You can check the real time status of your work with the CW Online AutoProof Tracking System

CW staff can also answer questions promptly

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AutoProof Online Tracking System

The tracking system emails notification of auto-proof status to authors/editors

Batting order:
You can move to the "Details" screen using the link provided (1).

The screen is split into Available Papers (2) and Batting Order (3), and allows you to view a PDF version of the current Batting Order (4) or add/view a related note (5).

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Seamless Integration with Partner Technologies

Integrated solutions

- Peer review systems
- Styling software
- Online hosting
- Printers
- CrossRef
- PubMed Central
- SciELO (soon !)

Scientific Electronic Library Online

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Charlesworth Workflow Comparison

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- ✓ Workflow is streamlined and condensed.
- ✓ A typical fast track schedule is 4 - 6 days (2 days to 1XO, 2 days for revisions if required, 2 days to delivery of online deliverables.)
- ✓ Other journals typically take 23 – 28 days from initial submission to online Release

Blue was previous client workflow, Yellow new workflow				
RUS Workflow	Allen Press Conventional 1XO Workflow	Allen Press Conventional Revision Workflow	Allen Press Online Publisher Workflow	PLUS ONE Workflow

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Applications and Developments

- Automatic generation of table of contents & index from XML
- Author proofing of link to PDF from XML, and reminder emails, checking if downloaded
- PDF XMP tagging, ePub creation
- Creating XML in multiple DTD's (formats), HTML/HTML5
- Reference linking and checking
- Online author corrections



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XMP Specification for PDF



Sample XMP Packet – AOP Article (No Enumeration)

A sample XMP packet is shown below with the logical property sections indicated by numerals ① – ⑤. In this example, '■' represents the Unicode "zero width non-breaking space character" (U+FEFF) used as a byte-order marker. The padding must be XML-compatible whitespace; the recommended practice is to use the ASCII space character (U+0020) in the appropriate encoding, with a newline after every 100 characters.

```
<>xpacket begin="■" id="WSM0MpCehiHreSzN7ozkc9d">
<:xmpmeta xmlns:x="adobe:meta/">
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  ① <dc:description rdf:about="doi:10.1038/nature06264" xmlns:dc="http://purl.org/dc/elements/1.1/">
  ② <dc:creator>
  <rdf:Seq>
    <rdf:li>Michael L. Oldham</rdf:li>
    <rdf:li>Dheeraj Khare</rdf:li>
    <rdf:li>Florante A. Quiocho</rdf:li>
    <rdf:li>Amy L. Davidson</rdf:li>
    <rdf:li>Jue Chen</rdf:li>
  </rdf:Seq>
  </dc:creator>
  ③ <dc:description>
  <rdf:Alt>
    <rdf:li xml:lang="x-default">Nature (2007). doi:10.1038/nature06264</rdf:li>
  </rdf:Alt>
  </dc:description>
  ④ <dc:format>application/pdf</dc:format>
  ⑤ <dc:identifier>doi:10.1038/nature06264</dc:identifier>
  <dc:publisher>
  <rdf:Seq>
    <rdf:li>Nature Publishing Group</rdf:li>
  </rdf:Seq>
  </dc:publisher>
  <dc:rights>
  <rdf:Alt>
    <rdf:li xml:lang="x-default">©#169; 2007 Nature Publishing Group</rdf:li>
  </rdf:Alt>
  </dc:rights>
  </rdf:RDF>
</xmpmeta>
</xpacket end="■">
```

OAI-PMH is the Protocol for Metadata Harvesting which comes from the Open Archives Initiative.

http://blogs.nature.com/wp/nascent/2008/12/xmp_labelling_for_nature.html

<http://network.nature.com/people/mfenner/blog/2009/05/25/oai-pmh-interview-with-tony-hammond>



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ePub

- “a single digital publication file for unencrypted reflowable digital books and other publications”
- Open standard moderated by IDPF
- XML based, an ePub publication can be thought of as a “website in a box”
- ePub - **Readable across** numerous devices...
- iPad/iPhone, Sony eReader, Nook etc, Adobe Digital Editions ... ePub3 major enhancements



UK, USA, CHINA



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What authors think

Royal Society of Chemistry, author quote after trying out new RSC Project Prospect XML and semantic tagging

*'It was like a researchers Aladdin's cave...
...it was fantastic to dig around the subject area and discover things I never knew existed.
My only criticism would be the need for a time warning! I spent 4 hours digging about which generated at least six new research ideas, printed half a ream of paper and I missed my bus home...'*



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What authors think

Oxford University Press Nucleic Acids Research, Open Access author survey

Time for their research to be published online, and speed of publication were a key factor in deciding which journal to chose, not just because it is open access. Of course Impact Factor and ranking of the journal is also important !

PLoSOne growth and development, now publishing around 1000-1200 articles a month, has an impact factor of 4.092 ... Started publishing December 2006



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Additional items:

**ePub, HTML and other deliverables available -
more information available via SciELO**



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In summary:

1. Consistent and known process, assist with workflow and operational efficiencies
2. Reduced time to publish
3. Improved quality product, linking, design, technology
4. We hope helps the development of Brazilian journals and the improved dissemination of your scientific articles



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Questions ?

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