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Illustration inspired by the work of Alan Turing

From collaboration to submission

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ADVANCING **DISCOVERY**

Previously

November 2020 FCC Week

From Manuscript to Publication:

Process and Data Requirements for a Modern Publication Result

Challenges

Fulltext XML is a requirement from customers, publishers and authors.

Problems arise, when proofing is done only on the PDF and XML is created with hindsight.

TeX based formulas taken over to XML in a normalized way, resulting in layout and even semantic changes of the underlying math.

LATEX → XML^{LATEX} →

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Authoring challenges

FCC Conceptual Design Reports are multi-part and highly collaborative

Typically 6-10 authors per chapter/section

Cross-authorship between chapters happens but usually the groups per chapter are quite independent

>> challenges normal role of corresponding author as coordinator

The bibliography is a pain point for reports, particularly:

>> where differences occur in collaborators reference libraries

>> when multiple .bibs exist for the same project

>> if publishers do not accept .bib files at submission

Missing packages / compilation problem when working offline

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Challenges at submission

Common compilation errors

Missing files or incorrect folder structure

Missing references [??]

Custom fonts

Special characters

Bibliography

Inability to submit .bib files

>> .bbl is a more limited and processed bibliography and not equivalent

>> causes problems when bringing together the different chapters

Author list

Publishers require metadata input for all authors at submission

Any changes in authorship that occur between submission and revisions/final decision require authorship change approval

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Template

Springer Nature LaTeX template

 >> content-first approach

 >> contextual help for submission preparation

 >> hosted in Overleaf for collaborative online authorship

 >> supports assisted submission (metadata extraction)

Article Title

First Author[1,2*], Second Author[2,3†] and
Third Author[1,2†]

[1*]Department, Organization, Street, City, 100190, State, Country.
[2]Department, Organization, Street, City, 10587, State, Country.
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[†]These authors contributed equally to this work.

Abstract

The abstract serves both as a general introduction to the topic and as a brief, non-technical summary of the main results and their implications. Authors are advised to check the author instructions for the journal they are submitting to for word limits and if structural elements like subheadings, citations, or equations are permitted.

Keywords: keyword1, Keyword2, Keyword3, Keyword4

1 Introduction

The Introduction section, of referenced text [1] expands on the background of the work (some overlap with the Abstract is acceptable). The introduction should not include subheadings.

Springer Nature does not impose a strict layout as standard however authors are advised to check the individual requirements for the journal they are planning to submit to as there may be journal-level preferences. When

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Early XML view

Differences between submitted source files and final proof are a pain point for research submitted in LaTeX

Moving conversion to XML upstream provides an early view of publication content

Opportunity to identify any artifacts that cannot displayed in online publication

Improved discoverability and usability

| Submission (LaTeX) | → | XML generation | → | e.proof | → | Publication (Fulltext XML + PDF) |
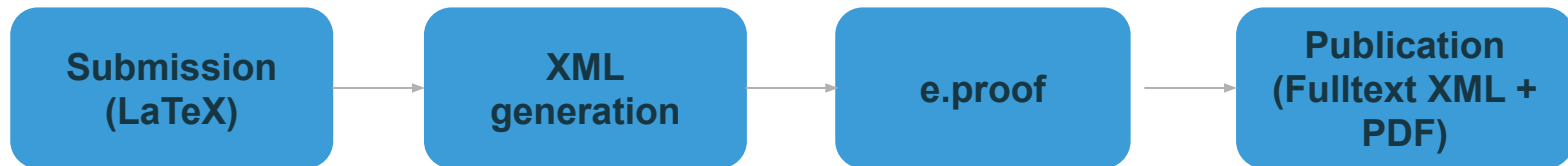
Author metadata extraction

Support for assisted submission

Extraction of article metadata (author information, title, abstract) to submission system

Reduction in effort

Reduction in error

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Thank you

The story behind the image

Alan Turing (1867–1934)

The scope of the achievements of Alan Turing, computer pioneer, wartime code-breaker and polymath, cannot be overstated. Renowned as the man who broke the Enigma code, Turing is also considered the father of computer science and artificial intelligence. His legacy is represented here with a visualisation of a "Turing Machine", a hypothetical device he devised to represent the logic of a computer. The binary code depicted translates to one of Turing's memorable quotes: Science is a differential equation. Religion is a boundary condition.

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