Metadata and Other Structures in texor

by Abhishek Ulayil

Abstract This is a small sample article to demonstrate handling of metadata and other structures during conversion in texor package.

1 Introduction

There is a difference in the structure of metadata and generally R Markdown has more metadata entries than its LaTeX counterpart. So for the conversion, the main task is to transform the metadata and include it in the generated R Markdown file, matching the LaTeX metadata as closely as possible.

When used with the `-s` or `standalone` mode, pandoc reads out some of the existing meta data. The extracted metadata are listed below.

Metadata read from LaTeX file

- Author names
- Author address (affiliation)
- ORCID number
- Title
- Bibliography
- Abstract
- CRAN/Bioconductor packages

The `\address{..}` section must be typeset in this manner for the most effective conversion.

```
\address{
Abhishek Ulayil\\ % Your Name in the first Line
Institute of Actuaries of India (Student)\\% Your affiliation which includes post and/or org
Mumbai, India\\ % Your City/Country
ORCiD: 0009-0000-6935-8690\\% ORCID number with prefix ORCiD:
}
```

Metadata read from DESCRIPTION file

- Date
- Slug
- Volume and issue

Some metadata like the volume and issue were picked up from the folder structure for some legacy articles, where the DESCRIPTION file was not available.

Other supported commands in conversion

Command	Render
\acronym{A}	A
\R	R
\pkg{texor}	**texor**
\CRANpkg{texor}	**texor**
\BIOpkg{Biobase}	**Biobase**
\ctv{ReproducibleResearch}	*ReproducibleResearch*
\command{help}	help

Table 1: Other commands supported by texor and pandoc

2 Miscellaneous

Citations

Table 2 represents all the ways one can use citations in LaTeX and expect the generated output.

Command	Render
\citet{pandoc}	Krewinkel, Lucero (2023)
\citep{pandoc}	(Krewinkel, Lucero , 2023)
\citet*{pandoc}	Krewinkel, Lucero (2023)
\citep*{pandoc}	(Krewinkel, Lucero , 2023)
\citeyear{pandoc}	2023
\citeauthor{pandoc}	Krewinkel, Lucero
\cite{pandoc}	Krewinkel, Lucero (2023)

Table 2: Different forms of citation in LaTeX.

Footnotes

Footnotes do not work in `tabular` environments in LaTeX but do work in R Markdown tables[1]. Custom footnote numbering works in LaTeX but does not work in R Markdown[25]. These features are demonstrated in Table 3.

Command	Render
\acronym{A}\footnote{This works in HTML, but not in LaTeX}	A[2]
\R\footnote[25]{HTML shows 4 rather than 25}	R[25]

Table 3: Demonstration of footnotes.

Block quotes

> This block quote should justify an example.

Links

Most links work just fine using \href and the \url command will work flawlessly, as demonstrated in Table 4.

Command	Render
\href{www.google.com}{Google}	Google
\url{www.google.com}	www.google.com
Table \ref{table:3}	Table 3
Section \nameref{misc}	Section Miscellaneous
\autoref{table:3}	Table 3

Table 4: Links

Note Certain reference commands like \nameref{} and \autoref{} may not work as intended in HTML.

Lists

An example of usage of lists in LaTeX and **texor** generated HTML.

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[1] Footnotes in paragraph text work in both LaTeX and R markdown

[25] Footnote 25

itemize

- A
- B

enumerate

1. A
2. B

description

rebib Convert and Aggregate Bibliographies

texor Converting 'LaTeX' 'R Journal' Articles into 'RJ-web-articles'

Note: Some options for lists such as special numbering schemes or markups to description item points might not work as intended and the generated HTML might be simple.

Colored text

Some commands to describe colored text also work during conversion, such as \textcolor{blue}{Blue Text} Blue Text.

3 Theorem environments

Theorem 1 *This is a sample theorem..*

Proposition 1 *As with $X \in \mathbb{R}$ this proposition ...*

Remark 1 texor *makes the article conversion easier.*

Pandoc supports default LaTeX theorem environments. One can refer to these environments like Theorem 1,Proposition 1 and Remark 1 made here. However custom theorem environments are not supported yet.

4 Summary

In summary the texor package alongside pandoc supports:

- Extracting metadata and putting it together well.
- Handling links, block quotes, citations and footnotes.
- Default theorem environments.

Bibliography

A. Krewinkel and A. Lucero pandoc 3.0 Release notes *pandoc* 2023 URL https://pandoc.org/releases.html [p2]

R. Fairbairns, A. Duggan, R. Schöpf and V. Eijkhout The moreverb package documentation *CTAN* 2011 URL https://mirror.niser.ac.in/ctan/macros/latex/contrib/moreverb/moreverb.pdf [p]

Abhishek Ulayil
Institute of Actuaries of India (Student)
Mumbai, India
ORCiD: 0009-0000-6935-8690