

Article

R bookdownplus: Authoring Articles, Mails, Guitar Chords, Chemical Molecular Formulae and Equations with R bookdown

Peng Zhao, Samwell Tarly and Lyanna Mormont*

Innsbruck, Citadel, Bear Island

* Correspondence: e-mail@e-mail.com; Tel.: +x-xxx-xxx-xxxx

† These authors contributed equally to this work.

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1 **Abstract:** Everyone knows that `bookdown` is an excellent package for authoring books on programming
2 languages. But it is only one side of the coin. It can do more than expected. Therefore I am developing
3 `bookdownplus`. `bookdownplus` is an extension of `bookdown`. It helps you write academic journal
4 articles, guitar books, chemical equations, mails, calendars, and diaries.

5 **Keywords:** dragon; dagger; bear; keyword 3 (list three to ten pertinent keywords specific to the
6 article, yet reasonably common within the subject discipline.)

7 1. Introduction

8 The R package `bookdownplus` [1] is an extension of `bookdown` [2]. It is a collection of multiple
9 templates on the basis of LaTeX, which are tailored so that I can work happily under the umbrella of
10 `bookdown`. `bookdownplus` helps you write academic journal articles, guitar books, chemical equations,
11 mails, calendars, and diaries.

12 `bookdownplus` extends the features of `bookdown`, and simplifies the procedure. Users only have to
13 choose a template, clarify the book title and author name, and then focus on writing the text. No need
14 to struggle in YAML and LaTeX.

15 With `bookdownplus` users can

- 16 • record guitar chords,
- 17 • write a mail in an elegant layout,
- 18 • write a laboratory journal, or a personal diary,
- 19 • draw a monthly or weekly or conference calendar,
- 20 • and, of course, write academic articles in your favourite way,
- 21 • with chemical molecular formulae and equations,
- 22 • even in Chinese,
- 23 • and more wonders will come soon.

24 Full documentation can be found in the book [R bookdownplus Textbook](#). The webpage looks
25 so-so, while the [pdf file](#) might give you a little surprise.

26 2. Materials and Methods

27 Although this section might not be the latest version, the general idea won't change. Please see [R](#)
28 [bookdownplus Textbook](#) to keep up with the update.

29 *2.1. Preparation*

30 Before starting, you have to install R, RStudio, bookdown package, and other software and
31 packages (i.e. Pandoc, LaTeX, rmarkdown, rticle, knitr, etc.) which bookdown depends on. See the
32 official [manual](#) of bookdown for details. Additionally, if you want to produce a poster, python must be
33 installed before using, and the path of python might have to be added to the environmental variables
34 for Windows users.

35 *2.2. Installation*

```
36 install.package("bookdownplus")  
37 # or  
38 devtools::  
39   install_github("pzhaonet/bookdownplus")
```

40 *2.3. Generate demo files*

41 Run the following codes, and you will get some files (e.g. `index.Rmd`, `body.Rmd`,
42 `bookdownplus.Rproj`) and folders in your working directory.

```
43 getwd() # this is your working directory. run setwd() to change it.  
44 bookdownplus::bookdownplus()
```

45 *2.4. Build a demo book*

46 Now open `bookdownplus.Rproj` with RStudio, and press `ctrl+shift+b` to compile it. You will
47 get a book file named `*.pdf` in `_book/` folder.

48 *2.5. Write your own*

49 Write your own text in `index.Rmd` and `body.Rmd`, and build your own lovely book.

50 *2.6. More outputs*

51 By default, the book is in a pdf file. From ‘bookdownplus’ 1.0.3, users can get more output formats,
52 including ‘word’, ‘html’ and ‘epub’. Run:

```
53 bookdownplus::  
54   bookdownplus(template = 'article',  
55                 more_output = c('html', 'word', 'epub'))
```

56 *2.7. Recommendations*

57 I have been developing some other packages, which bring more features into ‘bookdown’, such as:

- 58 • `mindr` [3], which can extract the outline of your book and turn it into a mind map, and
- 59 • `pinyin` [4], which can automatically generate ‘`{#ID}`’ of the chapter headers even if there are
60 Chinese characters in them.

61 Both of them have been released on CRAN and can be installed via:

```
62 install.packages('mindr')  
63 install.packages('pinyin')
```

64 Enjoy your bookdowning!

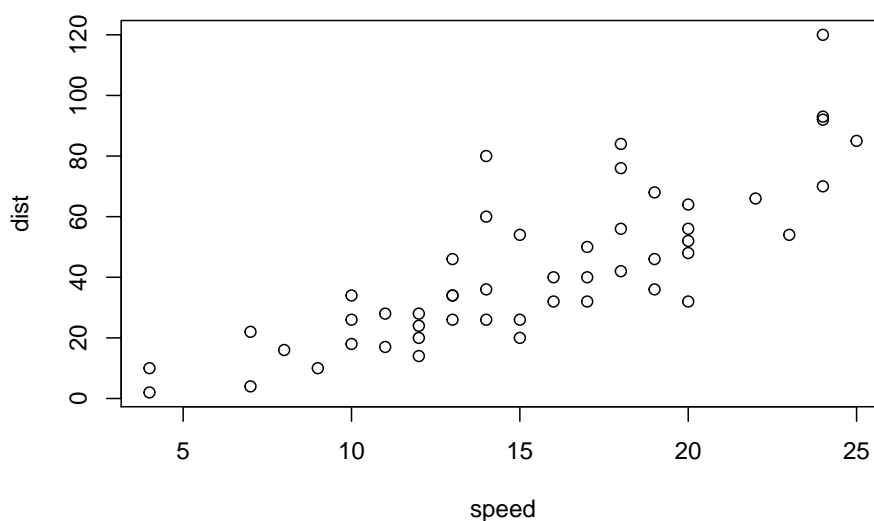


Figure 1. caption

65 2.8. Models

66 Eq. (1) is an equation.

$$E = mc^2 \quad (1)$$

67 It can be written as $E = mc^2$.

68 3. Results and Discussions

69 Fig. 1 psum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore
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71 Tab. 1 psum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut
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73 4. Conclusions

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77 cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa
78 qui officia deserunt mollit anim id est laborum

79 **Supplementary Materials:** The following are available online at www.mdpi.com/link, Figure S1: title, Table
80 S1: title, Video S1: title.

81 **Acknowledgments:** All sources of funding of the study should be disclosed. Please clearly indicate grants
82 that you have received in support of your research work. Clearly state if you received funds for covering the
83 costs to publish in open access.

84 **Author Contributions:** For research articles with several authors, a short paragraph specifying their individual
85 contributions must be provided. The following statements should be used “X.X. and Y.Y. conceived and
86 designed the experiments; X.X. performed the experiments; X.X. and Y.Y. analyzed the data; W.W. contributed
87 reagents/materials/analysis tools; Y.Y. wrote the paper.” Authorship must be limited to those who have
88 contributed substantially to the work reported.

Table 1. Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

89 **Conflicts of Interest:** The authors declare no conflict of interest. The founding sponsors had no role in the
90 design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, and
91 in the decision to publish the results.

92 Abbreviations

93 The following abbreviations are used in this manuscript: GOT: Games of Thrones.

94 References

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96 package version 1.0.2.
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