

Reproducible research with GNU Emacs and Org-mode

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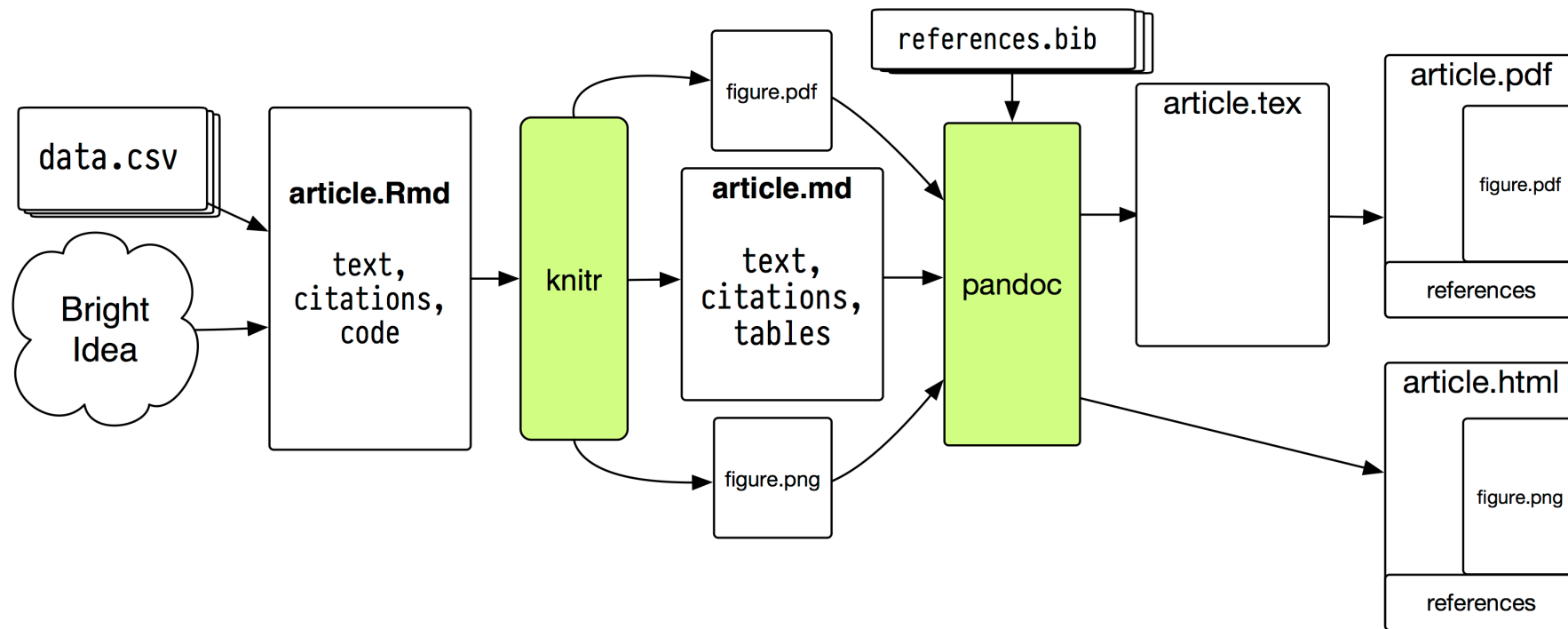
Keeping everything consistent



Facilitating research reproducibility

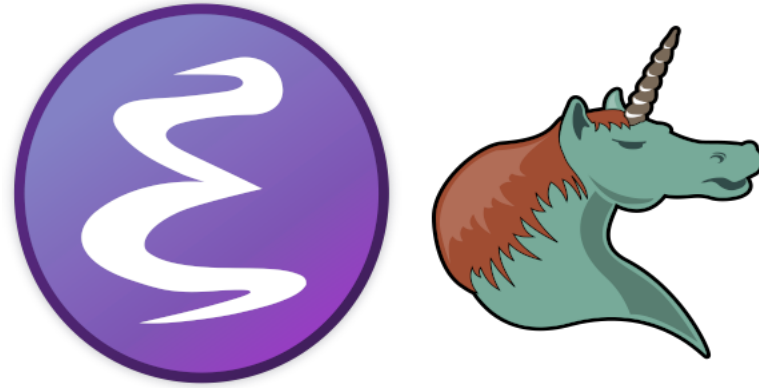
- Clear relationship between data, code and analysis.
- Portable and sustainable tools and formats.

Example workflow



From Kieran Healy, *The Plain Person's Guide To Plain Text Social Science*

GNU Emacs and Org-mode



Or how to bundle software, data and analysis in a single plain text file.

Emacs: used by many, but not widely

- Too old?
- Ugly?
- Not intuitive?

Overall, GNU Emacs has a reputation of being for "experts".

So why Emacs/Org-mode ?

Beyond editing text, GNU Emacs as a work environment:

- Consistent
- Efficient
- Portable
- Sustainable

Particularly suited for open and reproducible research.

Your research in plain text!

```
* <2020-11-22 Sun>  
** First look at the data  
   Simulations ran all week end  
   #+begin_src python  
   import numpy as np  
   ...  
   #+end_src
```

The most portable and future-proof format.

Wherever you go, you will find GNU Emacs...




GNU Emacs and Org-mode are free/libre software

- No restriction on use
- Anyone can read/modify the source code
- Anyone can redistribute ("fork") it

Maintained and extended by users, since '85

Give Org-mode a try!

[\[en - fr - ja\]](#)

 [Org Mode](#) [Features](#) [Releases](#) [Updates](#) [Install](#) [Manual](#) [Community](#) [Contribute](#)

Getting started with Org-mode

In its simplest form, Org is like any other markup language.

You can write Org syntax in any text editor.

However, to experience the full potential of Org you need an editor that transforms Org syntax into a living, interactive document.

Install Org

Preamble

At the start of a file (before the first headline), it is common to set the title, author and other export options.

```
#+title: The glories of Org
#+author: A. Org Writer
```

Headlines

Lines that start with an asterisk `*` are headlines.

A single `*` denotes a 1st-level headline, `**` denotes a 2nd-level headline, etc.

```
* Welcome to Org-mode
** Sub-heading
Each extra ~*~ increases the depth by one level.
```

In their simplest form headlines are just the start of a section. However, any headline can also become a TODO item.

TODO items are the basic building block that Org uses to track and organize all kinds of tasks.

To add a TODO item to a heading, start the heading with a TODO keyword such as `TODO` or `HOLD`.

<https://orgmode.org>