

Universe Building

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Principles of Complex Systems,
Vols. 1, 2, 3D, 4 Fourever, V for Vendetta

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Showrunner: ↑

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Possible paths:

Build your own interconnected universe

- 🌀 Papers are the essential product.
- 🌀 Everything else from social media to books flows out from papers.
- 🌀 Papers: Aim to be meaningful to others in whatever way.
- 🌀 Shareworthiness: Will people read your paper and share it with others in a positive way that will endure?
- 🌀 Proposals are papers from the adjacent possible.
- 🌀 LaTeX/Beamer: Papers + slides + bibliography.
- 🌀 Deeply live in Unix systems. Linux, Mac, VACC, Silk. The OG Data Science platform.

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Possible paths:

Build your own interconnected universe

- 🌀 Time is the Big Sort: Prefix work directories with YYYY-MM, smaller scale with YYYY-MM-DD.
- 🌀 Categorize major areas with directories, projects inside of them.
- 🌀 Knowledge is a networked hierarchy: Symbolic links.
- 🌀 AI, Overleaf, and everything in the cloud: Needs some kind of ordering, taxonomy.
- 🌀 Create passive work logs, measurements.
`makemanuscript.pl, print_universal.m`
- 🌀 Use AI. Thoughtfully. Everything is changing.

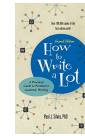
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Three books on writing:



“Write No Matter What: Advice for Academics”  
by Joli Jensen (2017). ^[4]

- 🌀 Holistic advice for academics, not just writing.
- 🌀 Keys: Project Box, Ventilation.



“How to Write a Lot: A Practical Guide to Productive Academic Writing”  
by Paul J. Silvia (2018). ^[6]
🌀 Get it done.



“Several Short Sentences About Writing”  
by Verlyn Klinkenborg (2012). ^[5]
🌀 Dive in anywhere. Vibes.

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Explore creativity and process outside of your work:

- 🌀 Take in anything on how to create anything.
- 🌀 Everything  about the Muppets .
- 🌀 Translate/copy/test elements as you build/adapt/refine your own processes

- | | | |
|----------------|-----------------|----------|
| 🌀 Movies | 🌀 Novels | 🌀 Policy |
| 🌀 TV series | 🌀 Gardens | 🌀 Sport |
| 🌀 Music | 🌀 Cooking | 🌀 Nature |
| 🌀 Comics | 🌀 City planning | 🌀 ... |
| 🌀 Architecture | 🌀 Farming | |

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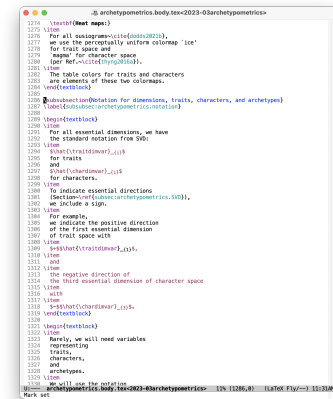
Better writing, editing, and thinking through the power of line breaks:

- 🌀 The physical typesetting of writing in books forced the tight paragraph structure with an indent.
- 🌀 Physical constraint became equated with how writing should look.
- 🌀 But: Writing as coding.
- 🌀 L^AT_EX: Organize vertically for thinking and editing.
- 🌀 Each element that could be moved backwards and forwards in writing stands alone in a vertical stack.
- 🌀 Sentences, phrases, mathematical pieces, items, ...

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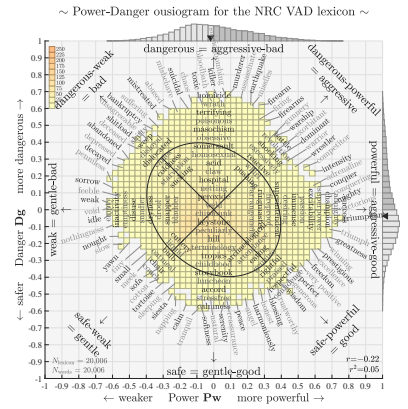
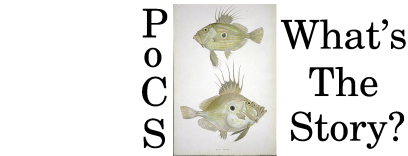
L^AT_EX: textblock structure: ^[3]



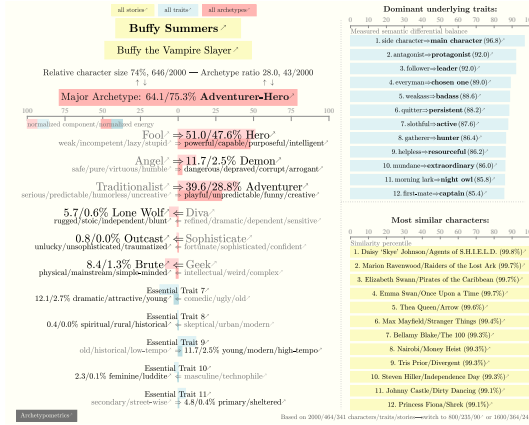
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Short post: [2015-05-13better-writing-editing-thinking-with-line-breaks/](https://www.peterdodds.com/2015-05-13better-writing-editing-thinking-with-line-breaks/) 

- The PoCSverse: <https://pdodds.w3.uvm.edu/pocverse/>
- Build graduate classes that are research engines.
- Class projects become papers, help papers along.



Ousiometrics: The essence of meaning aligns with a power-danger-structure framework instead of valence-arousal-dominance [1]



Archetypometrics, a Pragmateia: Empirical determination of the fundamental archetypes of fictional characters [3]

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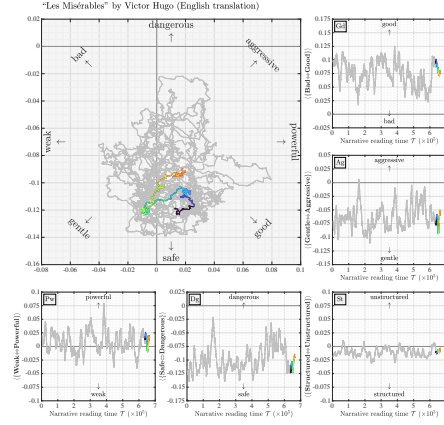
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Figure making:

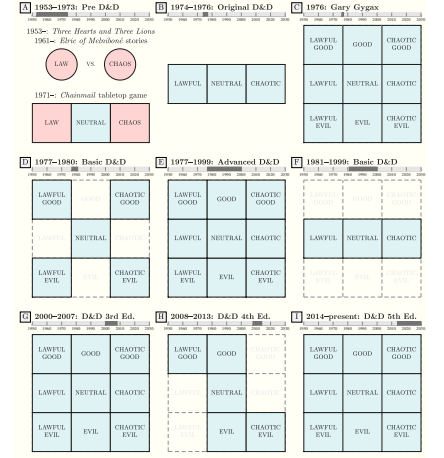
Every figure is a script

- Ideal: Be able to rebuild a paper from one command, including figures.
- At least have the sequence of operations to recorded.
- “Never use the mouse.”
- Figure making scripts encode knowledge and understanding.
- Over time, generate reusable structures, modules; a house style.
- Following examples are all from scripts.

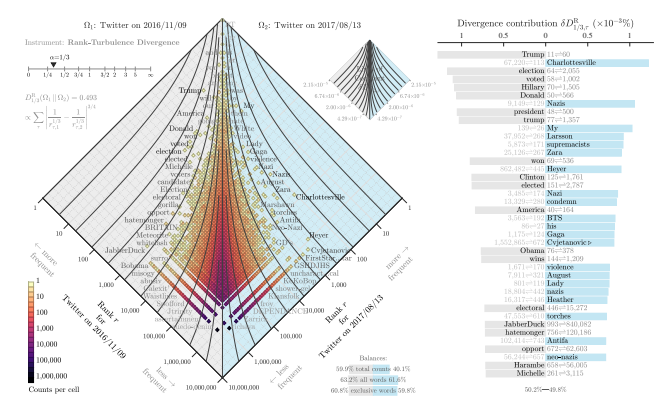


Ousiometrics: The essence of meaning aligns with a power-danger-structure framework instead of valence-arousal-dominance [1]

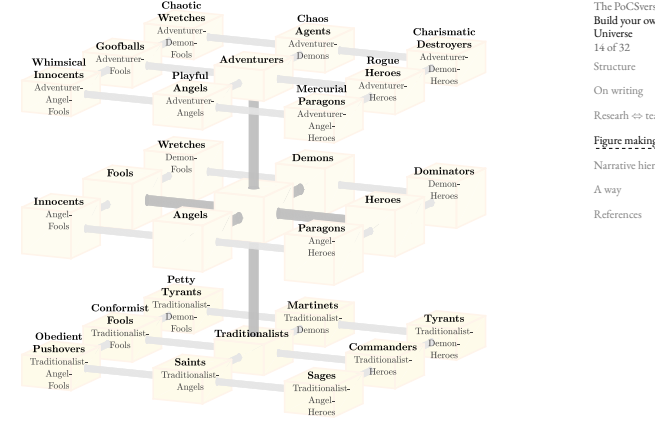
Alignment chart evolution:



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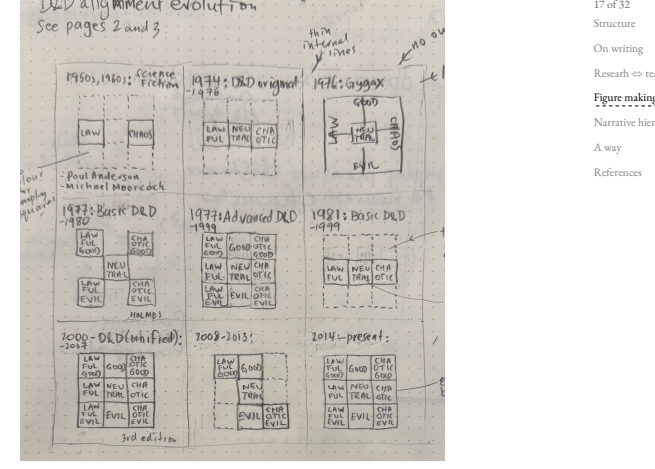


Allotaxonometry and rank-turbulence divergence: A universal instrument for comparing complex systems [2]



Archetypometrics, a Pragmateia: Empirical determination of the fundamental archetypes of fictional characters [3]

Alignment chart evolution—sketch:



Storytelling: Interactive data visualizations

- Inspiration: Major news outlets: The Economist, NY Times, Financial Times
- Inspiration: The Pudding
- Happiness: https://hedonometer.org/
- Vonnegut’s shapes of stories:
- https://complexstories.uvm.edu
- 33,000+ interconnected PDFs: compstorylab.org/archetypometrics/cards/stories-2000-464-341.pdf
- The Library of Variably Dangerous Books.

The Ten Scales of Stories

Scales 4–6: A paragraph to a short paper

- 4. One paragraph.
 - An abstract, the lede, the slightly buried nut graph, the elevator pitch, a thirty second television ad, modern movie trailers (which tend to lay out the whole story).
- 5. One page.
 - Standard news article, short magazine article, jokes requiring a very long walk.
- 6. Short paper.
 - Essay, blog post, political speech, the pamphlet, medium magazine article, television news report.

Burn down the Narrative Hierarchy, burn it all down:

Borges:

Writing long books is a laborious and impoverishing act of foolishness:

expanding in five hundred pages an idea that could be perfectly explained in a few minutes.

A better procedure is to pretend that those books already exist and to offer a summary, a commentary.

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The Ten Scales of Stories



- The deep knowledge work we must do for two reasons:
- Imperative: Create and deliver research stories at all scales starting at some floor (paper, project, research area).
 - 1. Simply: Critical knowledge creation.
 - 2. The danger if we do not do this work: Errors, misinformation, disinformation.
 - We cannot leave the higher scales of stories to others.
 - Titles are hard, abstracts are hard, ...
 - This is not fluff branding but a fundamental responsibility for scientists.

The Ten Scales of Stories

Scales 7–10: A long paper to a universe

- 7. Long paper.
 - Book chapter, long magazine article, a movie, episode of a television series.
- 8. Book.
 - Something that looks like a book when made physical and placed on a shelf, PhD thesis, a season of a television series.
- 9. Series of books.
 - Trilogies including increasingly inaccurately named ones, a full television series (e.g., Buffy, Slayer of Vampires).
- 10. A large coherent body of work, potentially involving many authors.
 - Epic sagas, movie franchises, six seasons and a movie, specific research areas, religious scriptures, story universes (the Discworld).

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The Ten Scales of Stories

Scales 1–3: A few words to a few sentences

- 1. One to three word encapsulation.
 - Soundbites, buzzframes, slogans, catchphrases, mottos, some maxims.
 - E.g., “Coke is it”, “Learned helplessness”, “The Big Bang”, and “Narrative Hierarchy”.
- 2. One sentence.
 - Title, headline, a well crafted tweet, proverbs, aphorisms, epigrams.
 - One-liners live here too.
 - Good territory for Dorothy Parker and Mark Twain and that fellow who said there was only one thing worse than being talked about.
- 3. A few sentences.
 - The nutshell, a movie’s log line, Nautilus’s three sentence science.

²**Buzzframe.** Defin (noun): Buzzwords that coherently frame a way of thinking in the listener.

Narrative hierarchy:

Exhortations

“Any good idea can be stated in fifty words or less.”
—Stanislaw Ulam

³At the very least, Ulam’s claim is self-consistent.

The absolute basics of basic science:

- Computational science in three back and forth steps:
- 1. Find meaningful+important+interesting phenomena, (optionally) involving spectacular amounts of data that you either put together or obtain from the back of a truck.
 - 2. Describe what you see.
 - 3. Explain it.

Taste matters. Develop taste in research.

Beware your assumptions: Don’t use tools/models because they’re there, or because everyone else does ...

If you succeed at 1–3:

- 4. Create.
- 5. Share.

Always: Be good people.

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Also Borges, The Secret Miracle:

“As all writers,
he judged others based on what they had produced,
and hoped that they would judge him based on
what he had still planned”

⁴“El milagro secreto,” 1943, in Ficciones

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Time:

- Time is primary.
- Be careful and protective of future time.
- An experiment: Record what you spend your time. Just log time and examine what you do.
- Build a taxonomy.⁶ Not what you planned to do, what you did.
- Become very, very good at saying No.
- Look after your whole self: physically, psychologically, socially, ...



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Build your own Universe:

- Copying a full system is a mistake.
- The power is in your process, your work

“Never Give Up, Never Surrender”



⁶Ancient app: eternity

References I

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