



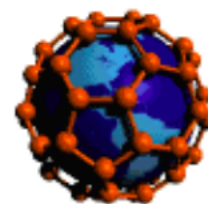
**POWER UP!**

Supercharging the  
manuscript-to-journal pathway

Chris Leonard, Cactus Communications



# Hi!



**ChemWeb.com**<sup>TM</sup>  
The World Wide Club for the Chemical Community



ELSEVIER



**BioMed Central**  
The Open Access Publisher

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C | O | P | E | COMMITTEE ON PUBLICATION ETHICS

**CACTUS**<sup>®</sup>

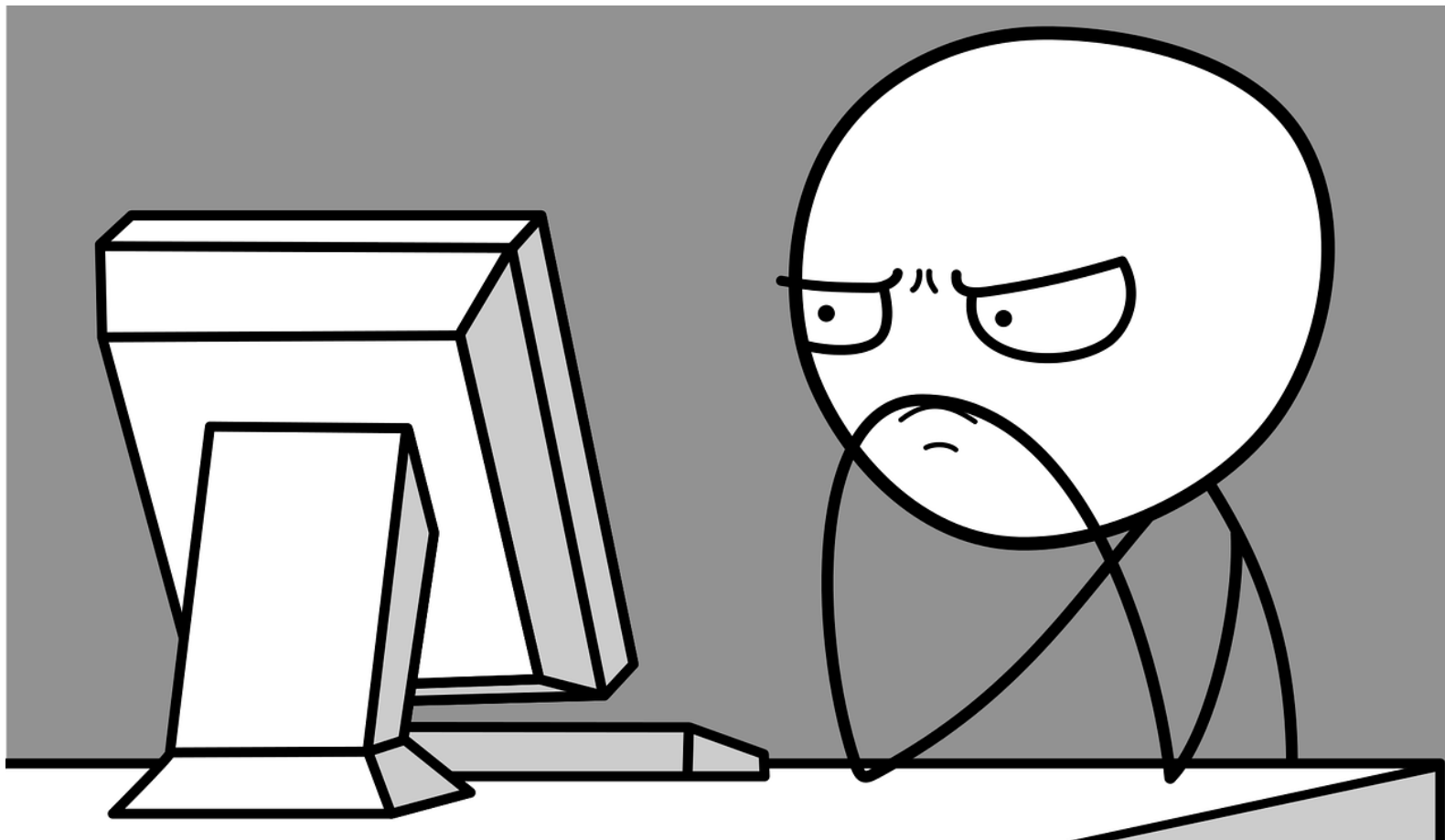
USA | UK | Japan | India | South Korea | China | Singapore



# Warning!

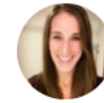
I'm a twitter addict and my references are largely to tweets, occasionally memes.

Submitting manuscripts to journals sucks



# And it takes up valuable time

- The time to submit online (up to 2 hours for multi-author papers)
- The time to first editorial screening (desk reject)
- The time to accept or reject (a fortnite, up to >12 months).
  - If reject – start the whole process again.



**Cait Cavanagh, PhD**

@Cait\_Cavanagh

Today a manuscript I really care about was accepted for publication. In the 3 years since we finished writing it, it was rejected at 7+ journals. But we believed in the paper's contribution and know it's going to impact the field.

Just a reminder not to give up on your work!

3:56pm · 23 Oct 2019 · Twitter for iPhone

# And it feels meaningless to the author

These people are our brightest and best, and we're 'wasting' their time on what feels like a tedious call of duty.

Surely we can do better than this in the early part of the 21<sup>st</sup> century?



**Dr Laura J Horsfall**

@drljhorsfall

Format-submit-rejected-reformat-submit-rejected-reformat-submit-rejected-reformat-submit-accepted 😊-pay a tonne of money 😡-publish 😊. Scientists waste ~1.55 million hrs/year (re)formatting papers. We need more journals on this list: [asntech.github.io/format-free-jo...](https://asntech.github.io/format-free-jo...) Also this just in 📌



**Jean-Philippe Chaput** @DrJPChaput Sep 26

Interested in knowing the cost of formatting for scientific publishing? Check out our paper. Long story short, scientific formatting represents a loss of 52 hours per person, per year. This costs the equivalent of US\$1,908 per researcher per year!!!  
[journals.plos.org/plosone/articl...](https://journals.plos.org/plosone/articl...)

🗨️ 29 ↻ 432 ❤️ 684 ⋮

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# What would it look like if an author reinvented the whole process?

- In product development there is great focus on user-centered design.
- There has been a notable lack of that in academic services.
- What would submission systems look like in an author-centered universe?



# Here's what we learnt...

- Authors want to submit once and once ONLY
- Authors want primacy and citeability of preprints
- BUT they also want the authentication that only a peer reviewed journal brings





# Things suggest themselves from there

- Author writes, and then will preferably upload to a preprint server. That's the last time they want to worry about uploading it anywhere.
- But can we make it even easier on the author? Emailing the URL to a journal editor still feels like a shot in the dark.



**Robert Lanfear** @RobLanfear  
Fuck I hate submitting papers.

Jul 25

1. Post preprint
2. Write cover letter
3. Register for account with jrnl
4. Fill out forms for ~2hrs (AKA fight manuscript central)
5. Suggest reviewers
6. On rejection, goto 2

I have a new system.

1. Post a preprint
2. Email URL to jrnl editor

78  333  2k ...

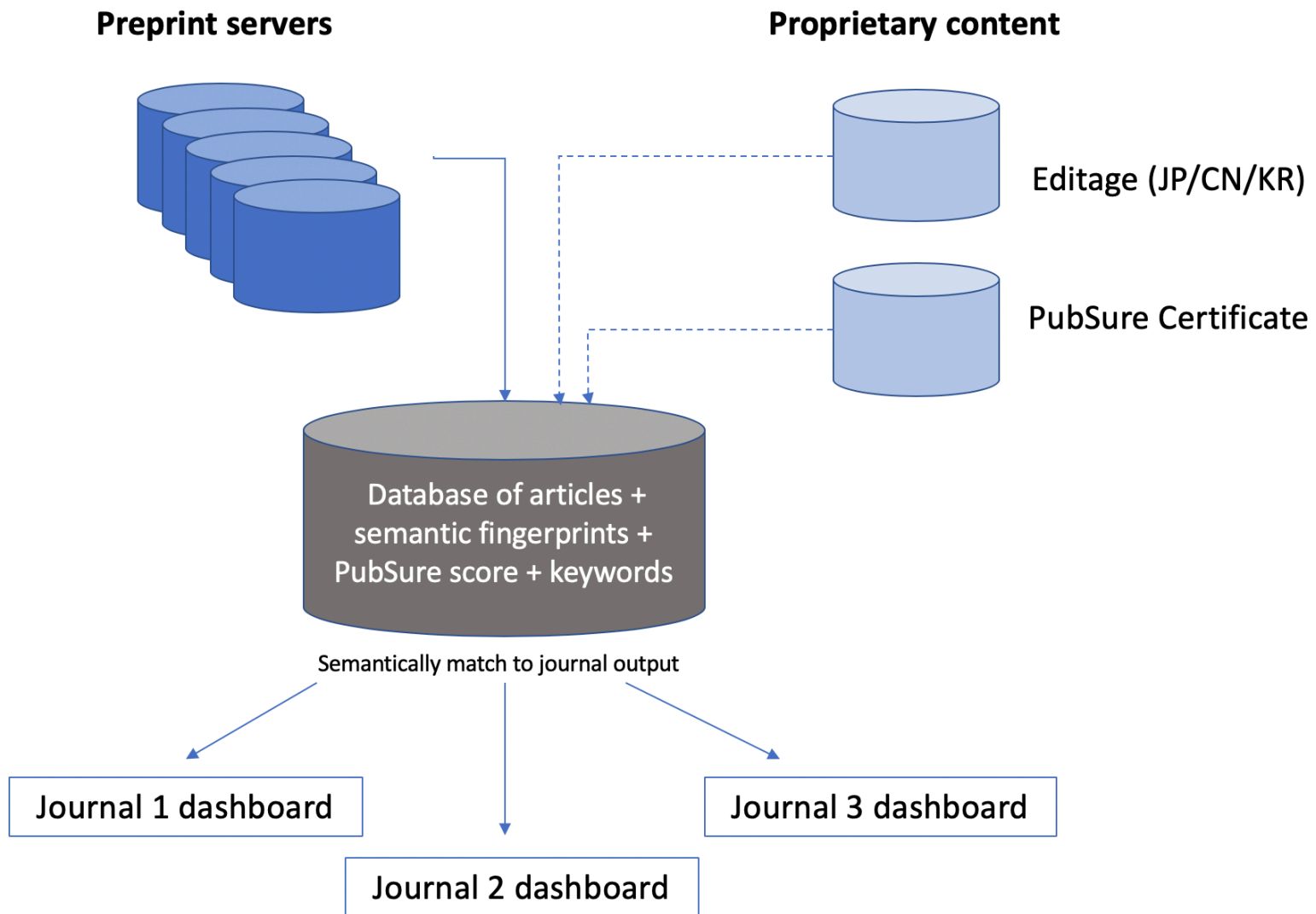
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# Making it better

- Showcase unpublished work to multiple journal editors
- Filter out manuscripts that would be desk-rejected
- Match articles semantically to journals
- Let editors filter by relevance, quality, geography etc.



# PubSURE Connect



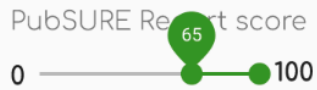


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Matched articles (1)

Previously read

Bookmarked

Shown interest (1)

Soon to expire (1)

Showing 1 - 75 of 3731

Date	Title	Rel	PSR	Country	OA	Plag	Expires	
<input type="checkbox"/> 12/04/2019	<b>Critical role for Slam/SAP signaling in the thymic developmental</b>	91%	84%	UK	Yes	Poor	3 days	
12/04/2019	<b>Rapid Identification of Stable Clusters in Bacterial Populations Using the Adjusted Wallace Coefficient</b>	88%	74%	India	Yes	Medium	24 mins	
12/04/2019	Not so sterile after all: The endomicrobiome of plerocercoids of the cestode parasite <i>Schistocephalus solidus</i> and changes to the microbiome of its Threespine Stickleback host	83%	73%	USA	Yes	Good	5 hrs 21 mins	
12/04/2019	<b>Leader cells in collective chemotaxis: optimality and</b>	91%	91%	China	Yes	Good	3 days	
12/04/2019	Imidazole-imidazole hydrogen bonding in the pH sensing Histidine sidechains of Influenza A M2	88%	88%	USA	No	Good	3 days	
12/04/2019	A general approach to engineer positive-going eFRET voltage indicators	83%	83%	Japan	Yes	Medium	4 days	
12/04/2019	Analysis and comparison of genome editing using CRISPResso2	91%	91%	Japan	Yes	Good	3 days	
12/04/2019	Maftools: Efficient analysis, visualization and summarization of MAF files from large-scale cohort based cancer studies	88%	88%	India	Yes	Medium	2 days	
12/04/2019	Maternal tamoxifen treatment expands the macrophage population of early mouse embryos	83%	83%	UK	No	Good	3 days	
12/04/2019	<b>Critical role for Slam/SAP signaling in the thymic developmental</b>	91%	84%	UK	Yes	Poor	3 days	
12/04/2019	<b>Rapid Identification of Stable Clusters in Bacterial Populations Using the Adjusted Wallace Coefficient</b>	88%	74%	India	Yes	Medium	24 mins	



PubSURE Team

- **You have 3 invitations to submit to journals**

18:11

# Why did Cactus do this (and not X)?

- At Cactus, we act as a kind of umbrella operation, spanning multiple publishers. As such we are publisher-independent.
- At Cactus, we have 18 years of experience and consistent manuscript throughput with Editage.
- At Cactus we have been developing AI tools in NLP for academic publishing for the last 24 months and have market feedback on what works well - and not so well.
- At Cactus we have a vision to work with researchers to reimagine academia from their point of view.

# What's in it for journals/editors?

- See the best content first.
- Improve the quality of your journal.
- Improve your coverage from rapidly growing research centers.
- Strategically steer content focus.
- Cut down on acquisition costs.
- Speed up publication time.

# What's in for preprint servers?

- Makes preprint servers even more attractive to authors
- Preprint servers as the *de facto* submission route to journals?
- Ensures that journals and preprint servers enjoy a (short-term) symbiotic relationship where they both get stronger thanks to closer ties between them.
  - > I'll come back to this soon.



# Who pays for all this?

- Business model is:
  - Free for authors forever
  - Free for editors until we have proved value, then of the order of an APC per journal per year.
  - Multiple editors per journal possible
  - Low/no barrier to sign up
- We do filter every applicant to screen out predatory journals.

# What's the next logical step?

- Where does this go next – or what are the extrapolations of this?  
How can we track, and field, suggestions on iterating this?

# A plaintive plea to the world



Make your documents machine-readable.

Very few preprint servers offer or demand epub/html/xml

PDF is holding back many initiatives in interoperability & AI/ML/NLP.

Also a real accessibility issue.

# How else can we Power Up researchers?

- People
- Processes
- Workflows

Processes and workflows are easy to re-engineer and rebuild. But the focus on these at the expense of a more holistic view of researchers means we aren't as 'user-centered' as we might be.

What else is important? Support, networks, emotional backup, mentoring, mental health, education. Without this, everything else is of only marginal value.



YOU HAVE DIED OF DYSENTERY

# Thank you!

- Chris Leonard / Director of Product & Strategy
- [christopher.leonard@cactusglobal.com](mailto:christopher.leonard@cactusglobal.com) / @hooHar

Answers: Super Mario World  
Fortnite  
Call of Duty  
Track and Field  
The Oregon Trail