

# Improving science communication when everything is not fine



**Vic Vijayakumar**

**Principal Engineer @ Twilio**

**2x dad, 6.2x runner, 10x plant killer**

# The demotion

(according to recruiters)



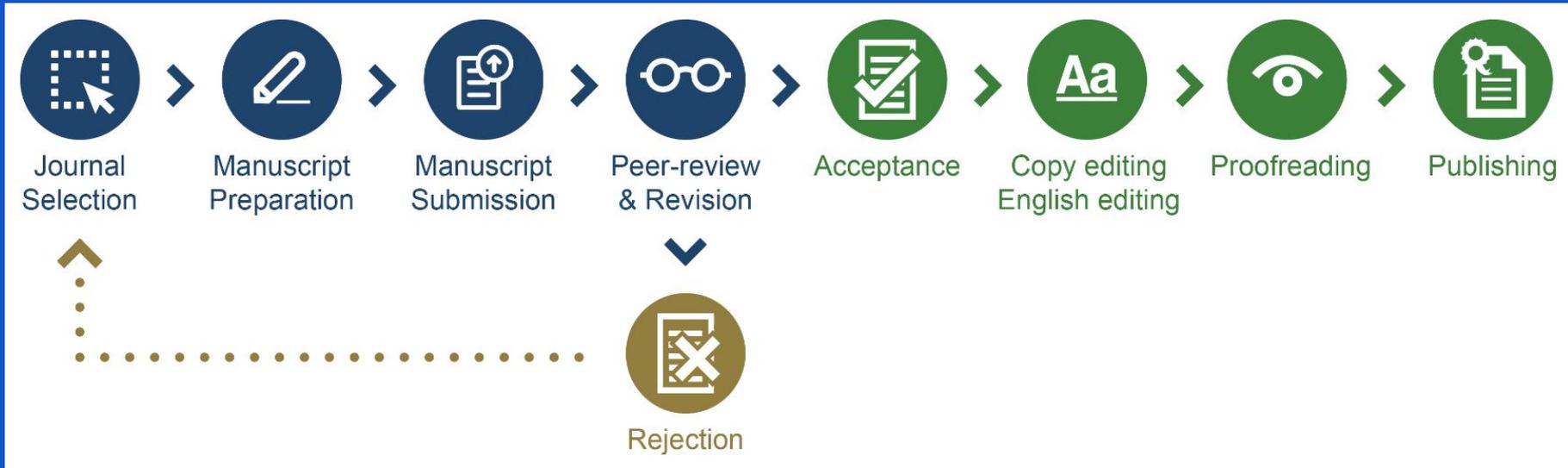


What would you say you do here?



Don't you wish your preprints were ~~not like~~  
~~mine~~ better

# Scientific publishing ELI5



# Preprints ELI5



Manuscript  
Preparation



Manuscript  
Submission



Publishing

Ok I guess we're building it.  
How should we build it?

There are 5 rules to successfully executing  
a large technical project

There are 5<sup>ish</sup> rules to successfully executing  
a large technical project

1

Talk to users

Don't whiteboard any infra. Don't write any code. Don't buy a domain.

2

## Talk to stakeholders

Regular communication & collaboration helps ensure that everyone is on the same page & working towards the same goals.

3

Ship something, get feedback

Your biggest priority is getting immediate feedback.

Ship something, get  
feedback

twitter.com/VicVijayakumar



What is the title of your manuscript?

[GET STARTED >](#)

New results  Confirmatory results  Contradictory results

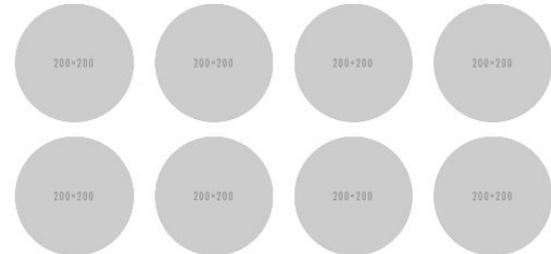
## Our Preprints Difference

At Research Square, we come to work every day because we want to help solve a big problem: how to help researchers like you get your discoveries from the lab to the point where your research has impact on society.

At Research Square, we come to work every day because we want to help solve a big problem: how to help researchers like you get your discoveries from the lab to the point where your research has impact on society.

## Our Advisory Board

At Research Square, we come to work every day because we want to help solve a big problem: how to help researchers like you get your discoveries from the lab to the point where your research has impact on society.



## NEW RESULTS

## Neogene amphibians and reptiles (Caudata, Anura, Gekkota, Lacertilia, and Testudines) from the south of Western Siberia, Russia, and Northeastern Kazakhstan

Davit Vasilyan, Vladimir S. Zazhigin, Madelaine Bohme

## Independent Validation Badges



## Abstract

## Background

The present-day amphibian and reptile fauna of Western Siberia are the least diverse of the Palaearctic Realm, as a consequence of the unfavourable climatic conditions that predominate in this region. The origin and emergence of these herpetofaunal groups are poorly understood. Aside from the better-explored European Neogene localities yielding amphibian and reptile fossil remains, the Neogene herpetofauna of Western Asia is understudied. The few available data need critical reviews and new interpretations, taking into account the more recent records of the European herpetofauna. The comparison of this previous data with that of European fossil records would provide data on palaeobiogeographic affiliations of the region as well as on the origin and emergence of the present-day fauna of Western Siberia. An overview of the earliest occurrences of certain amphibian lineages is still needed. In addition, studies that address such knowledge gaps can be useful for molecular biologists in their calibration of molecular clocks.

## Manuscript

## Neogene amphibians and reptiles (Caudata, Anura, Gekkota, Lacertilia, Testudines) from south of Western Siberia, Russia and Northeastern Kazakhstan

Davit Vasilyan <sup>1,2,3</sup>, Vladimir Zazhigin <sup>4</sup>, Madelaine Bohme <sup>5</sup><sup>1</sup> Department of Geosciences, Eberhard-Karls-University Tübingen, Tübingen, Germany<sup>2</sup> JURASSICA Museum, Pörschegg, Switzerland<sup>3</sup> Department of Geosciences, University of Fribourg, Fribourg, Switzerland<sup>4</sup> Institute of Geology, Russian Academy of Sciences, Moscow, Russia<sup>5</sup> Senckenberg Center for Human Evolution and Palaeoecology, Tübingen, SwitzerlandCorresponding Author: Davit Vasilyan  
Email address: davit.vasilyan@jurassica.ch

**Background.** Now-a-day territory of Western Siberia has the poorest diversity of amphibians and reptiles within the Palaearctic Realm, influenced by unfavourable climate. Less is known about the origin and emergence of it. Aside from better-explored European Neogene records of amphibians and reptiles, the Neogene herpetofauna of Western Asia is understudied. The few available studies on amphibian and reptile fossil assemblages need critical reviews and new interpretations considering the latest knowledge of the European record. The comparison with European record will provide data on palaeobiogeographic affiliations of the region as well as origin and emergence of the now-a-day fauna of Western Siberia. Beside these, a study providing overview about the earliest occurrences of certain amphibian lineages, that can be used for the calibration of the molecular clocks, is missing.

**Methods and Results.** The amphibian and reptile fauna from over 40 Western Siberian, Russia and Kazakhstan Mesozoic Testudines from Middle Miocene Fossiliferous has been provided.

## ARTICLE PRIVACY



Your article is currently private, and visible only to you. To enable collaboration with colleagues, change your setting to "Collaborate". Click each of the privacy levels to learn more.

## SUBJECT AREAS

Evolutionary & Developmental Biology  
Molecular Biology & Genetics  
Zoology & Plant Biology  
Interdisciplinary Biology

## JOURNAL RECOMMENDATIONS

These journals have published papers like yours. You may invite journal editors to view your article in order to gauge their interest, and to offer your pre-publication feedback.

17	Journal of Biodiversity	17 papers like this in 2016	Invite
11	Nature Communications	11 papers like this in 2016	Invite
8	BMC Ecology	8 papers like this in 2016	Invite
6	BMC Environments	6 papers like this in 2016	Invite
4	BMC Cancer	4 papers like this in 2016	Invite

These recommendations are provided by JournalGuide, our free tool created to help researchers find the best journal for their paper. See more recommendations.

# Ship something, get feedback

## NEW RESULTS

## Neogene amphibians and reptiles (Caudata, Anura, Gekkota, Lacertilia, and Testudines) from the south of Western Siberia, Russia, and Northeastern Kazakhstan

Davit Vasilyan, Vladimir S. Zazhigin, Madelaine Bohme

## Independent Validation Badges



## Abstract

## Background

The present-day amphibian and reptile fauna of Western Siberia are the least diverse of the Palaearctic Realm, as a consequence of the unfavourable climatic conditions that predominate in this region. The origin and emergence of these herpetofaunal groups are poorly understood. Aside from the better-explored European Neogene localities yielding amphibian and reptile fossil remains, the Neogene herpetofauna of Western Asia is understudied. The few available data need critical reviews and new interpretations, taking into account the more recent records of the European herpetofauna. The comparison of this previous data with that of European fossil records would provide data on palaeobiogeographic affiliations of the region as well as on the origin and emergence of the present-day fauna of Western Siberia. An overview of the earliest occurrences of certain amphibian lineages is still needed. In addition, studies that address such knowledge gaps can be useful for molecular biologists in their calibration of molecular clocks.

## Manuscript

## Neogene amphibians and reptiles (Caudata, Anura, Gekkota, Lacertilia, Testudines) from south of Western Siberia, Russia and Northeastern Kazakhstan

Davit Vasilyan <sup>1,2,3</sup>, Vladimir Zazhigin <sup>1</sup>, Madelaine Bohme <sup>1,3</sup><sup>1</sup> Department of Geosciences, Eberhard-Karls-University Tübingen, Tübingen, Germany<sup>2</sup> JRMSSCA Museum, Porrentruy, Switzerland<sup>3</sup> Department of Geosciences, University of Fribourg, Fribourg, Switzerland<sup>4</sup> Institute of Geology, Russian Academy of Sciences, Moscow, Russia<sup>5</sup> Senckenberg Center for Human Evolution and Palaeoecology, Tübingen, Switzerland

Corresponding Author: Davit Vasilyan

Email address: davit.vasilyan@geowiss.uni-tuebingen.de

**Background.** Now-a-day territory of Western Siberia has the poorest diversity of amphibians and reptiles within the Palaearctic Realm, influenced by unfavourable climate. Less is known about the origin and emergence of it. Aside from better-explored European Neogene records of amphibians and reptiles, the Neogene herpetofauna of Western Asia is understudied. The few available studies on amphibian and reptile fossil assemblages need critical reviews and new interpretations considering the latest knowledge of the European record. The comparison with European record will provide data on palaeobiogeographic affiliations of the region as well as origin and emergence of the now-a-day fauna of Western Siberia. Beside these, a study providing overview about the earliest occurrences of certain amphibian lineages, that can be used for the calibration of the molecular clocks, is missing.

## Community review

The manuscript should be accepted after a minor revision of the anatomical descriptions and taxonomic identifications. The English should be also improved (I made several corrections but I am not a native English).

Ship something, get feedback

twitter.com/VicVijayakumar

Published: April 6, 2017

## CITE AS

Vasilyan D, Zazhigin VS, Bohme M. (2017) Neogene amphibians and reptiles (Caudata, Anura, Gekkota, Lacertilia, and Testudines) from the south of Western Siberia, Russia, and Northeastern Kazakhstan.

RSQ 1:1001 <https://doi.org/10.21203/rsq.1001>

## METRICS &amp; ANALYTICS



Downloads: 24

Views: 121

## SHARING



## SUBJECT AREAS

Evolutionary &amp; Developmental Biology

Molecular Biology &amp; Genetics

Zoology &amp; Plant Biology

Interdisciplinary Biology

## COMPATIBLE JOURNALS

These journals have published similar papers in the past. Vote for the journal that you think is the best fit.

17	Journal of Biodiversity	17 papers like this in 2016	Vote
11	Nature Communications	11 papers like this in 2016	Vote
8	BMC Ecology	8 papers like this in 2016	Vote
6	BMC Environments	6 papers like this in 2016	Vote
4	BMC Cancer	4 papers like this in 2016	Vote

Or suggest an alternative journal:

Suggest

1

Talk to users

You shipped something, ask them about it.

2

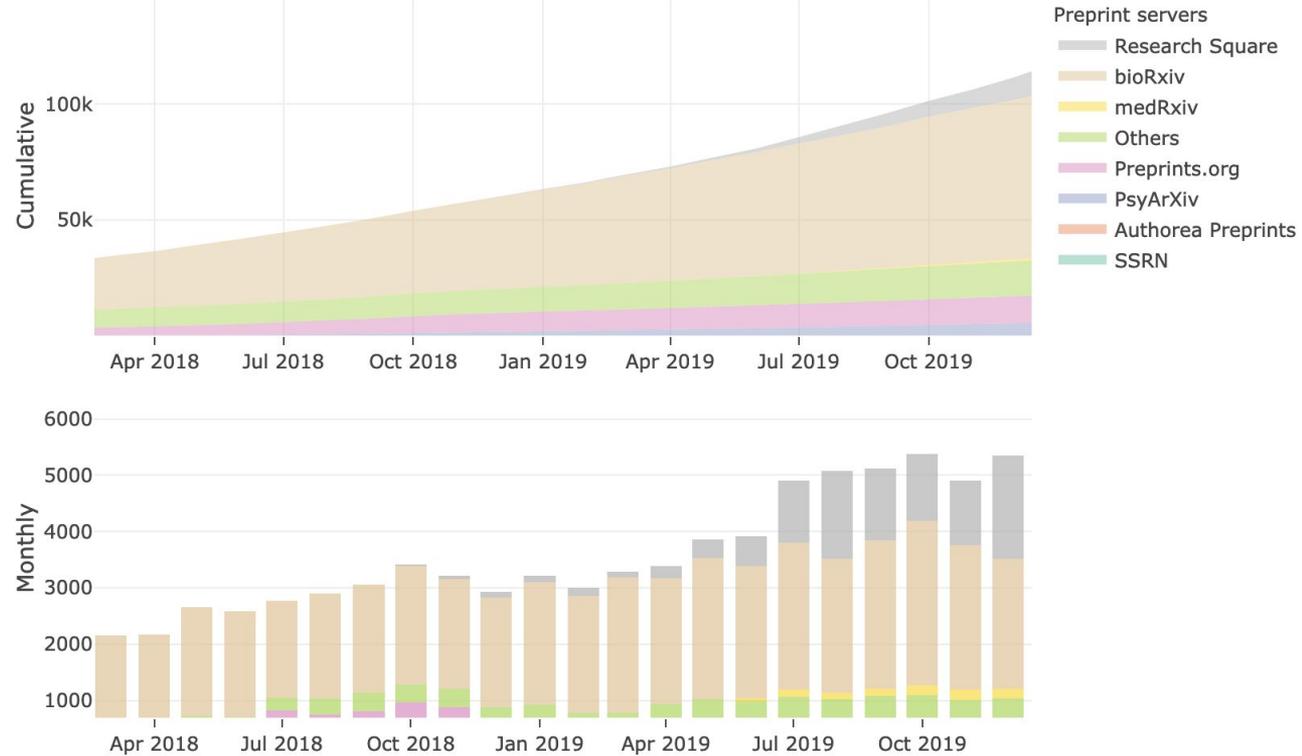
Talk to stakeholders

You shipped something, ask them about it.

# We launched in October 2018

Month	Number of papers posted
Oct 2018	5
Nov 2018	45
Dec 2018	93

# 2018-2019



3.5

Ship early, ship often

Ship small iterations to get tight feedback loops. Develop that muscle early and keep it warm.



Research Article

## Anti-SARS and anti-HCV drugs repurposing against the Papain-like protease of the newly emerged coronavirus (2019-nCoV)

Abdo Elfiky, Noha S Ibrahim

This is a preprint; it has not been peer reviewed by a journal.

<https://doi.org/10.21203/rs.2.23280/v1>

This work is licensed under a CC BY 4.0 License

Status: Posted

Version 1

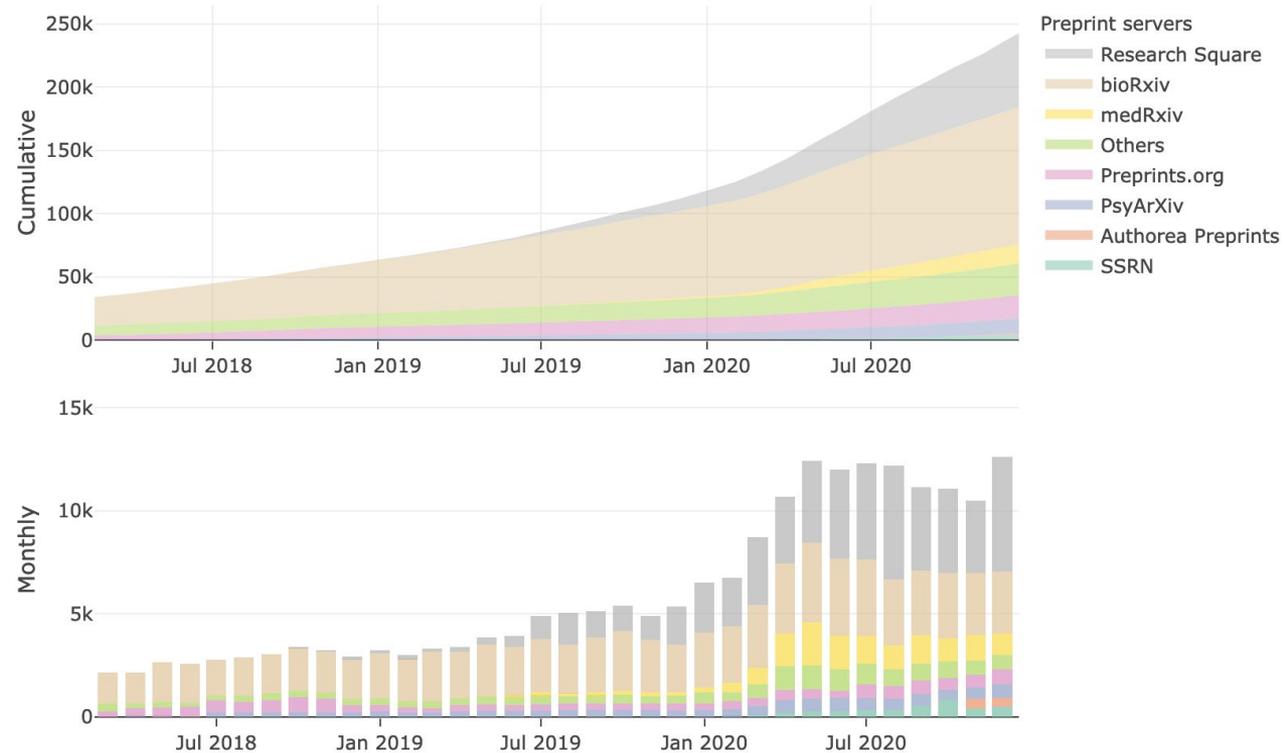
posted 11 Feb, 2020

You are reading this latest preprint version

### Abstract

A new mysterious coronavirus outbreak started last month in China. The World Health Organization (WHO) termed the new virus strain 2019-nCoV to be the seventh reported human coronaviruses (HCoV). A seafood market in Wuhan city, central China was the starting point of the emergence with unknown animal causes the first animal to human transmission.

# 2018-2020

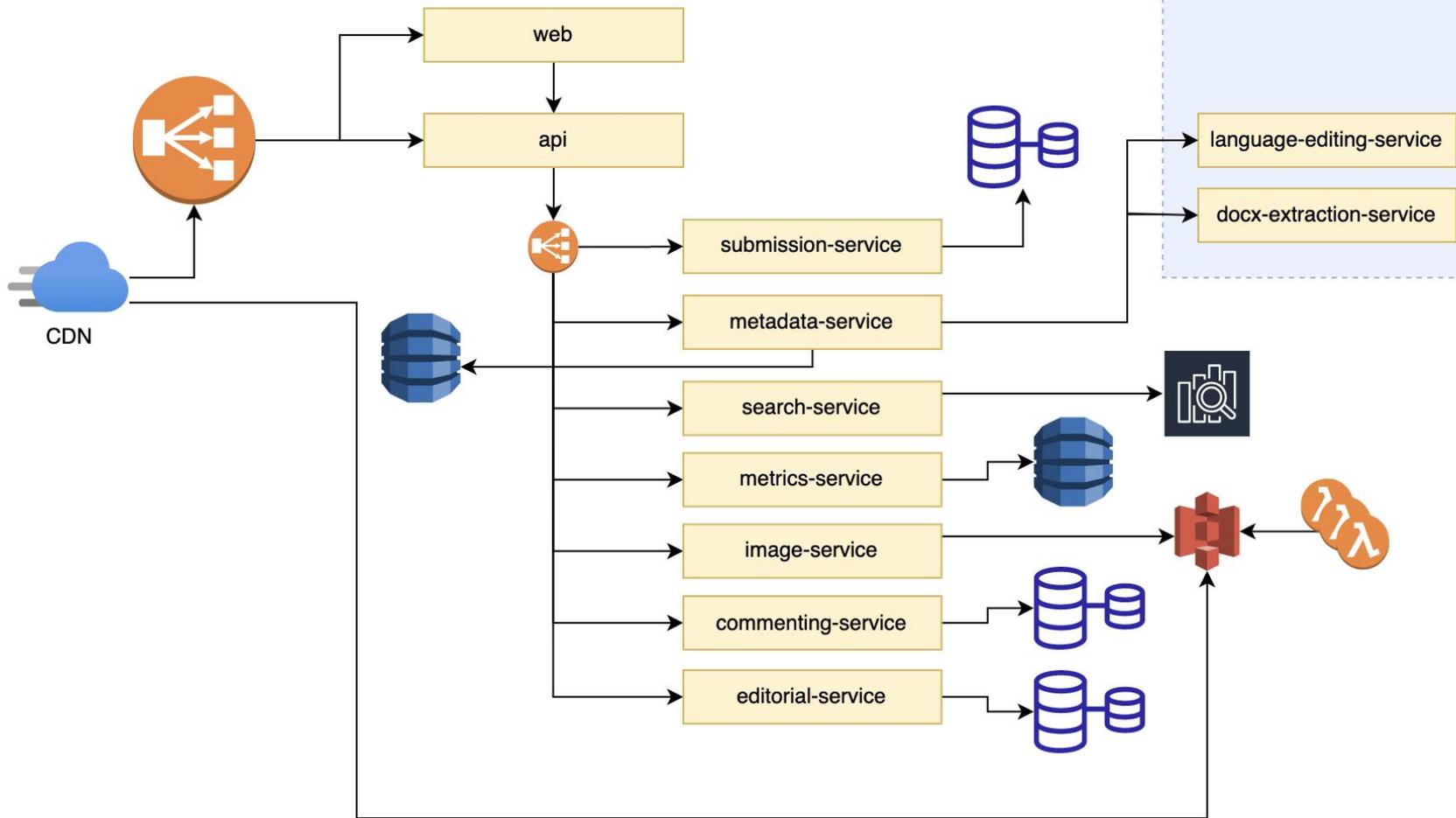


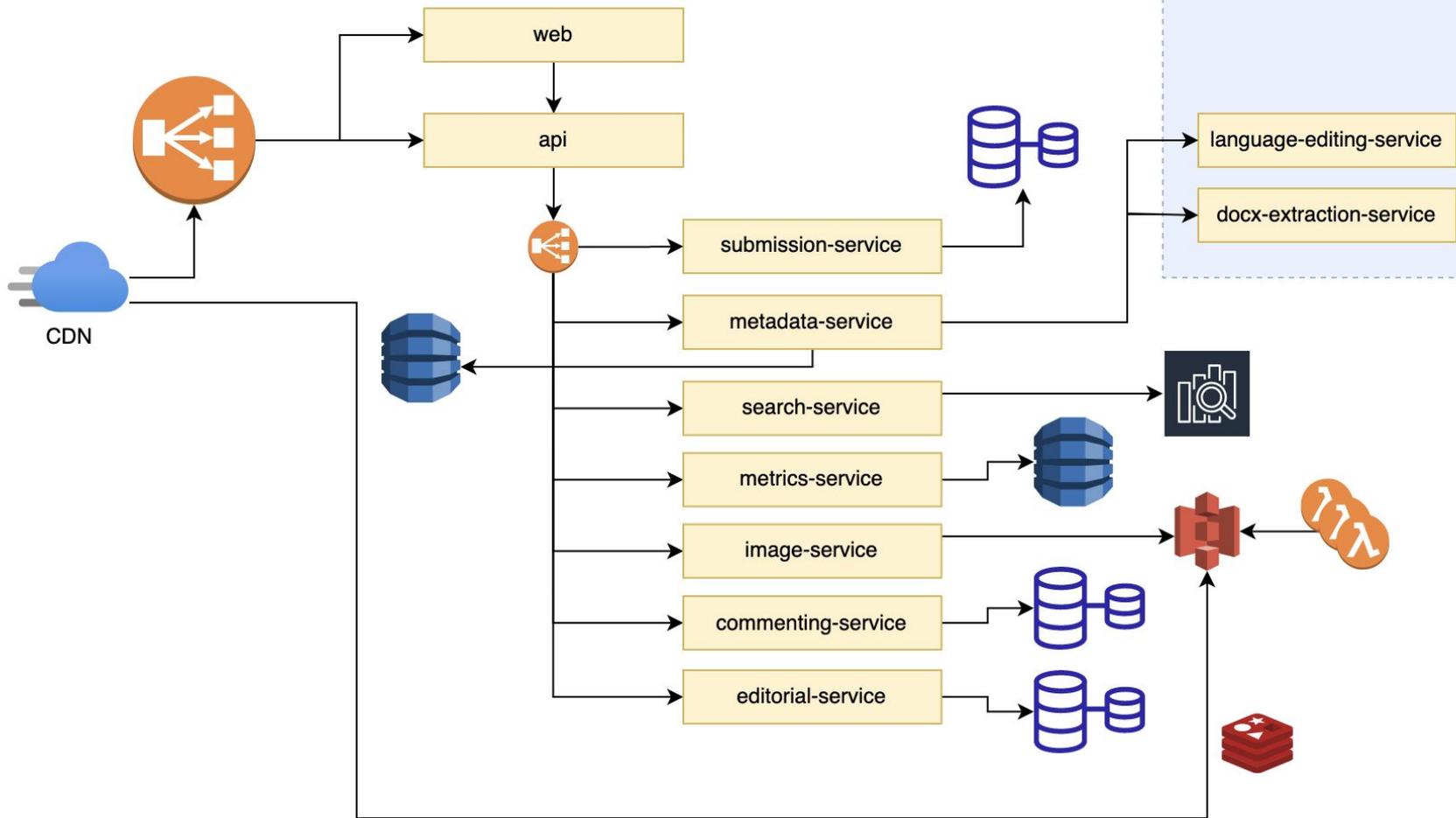
4

Have a scaling plan

Someday you may actually need to scale.  
And it won't always be planned.

what does the tech stack of a preprint server look like? (a systems design exercise)

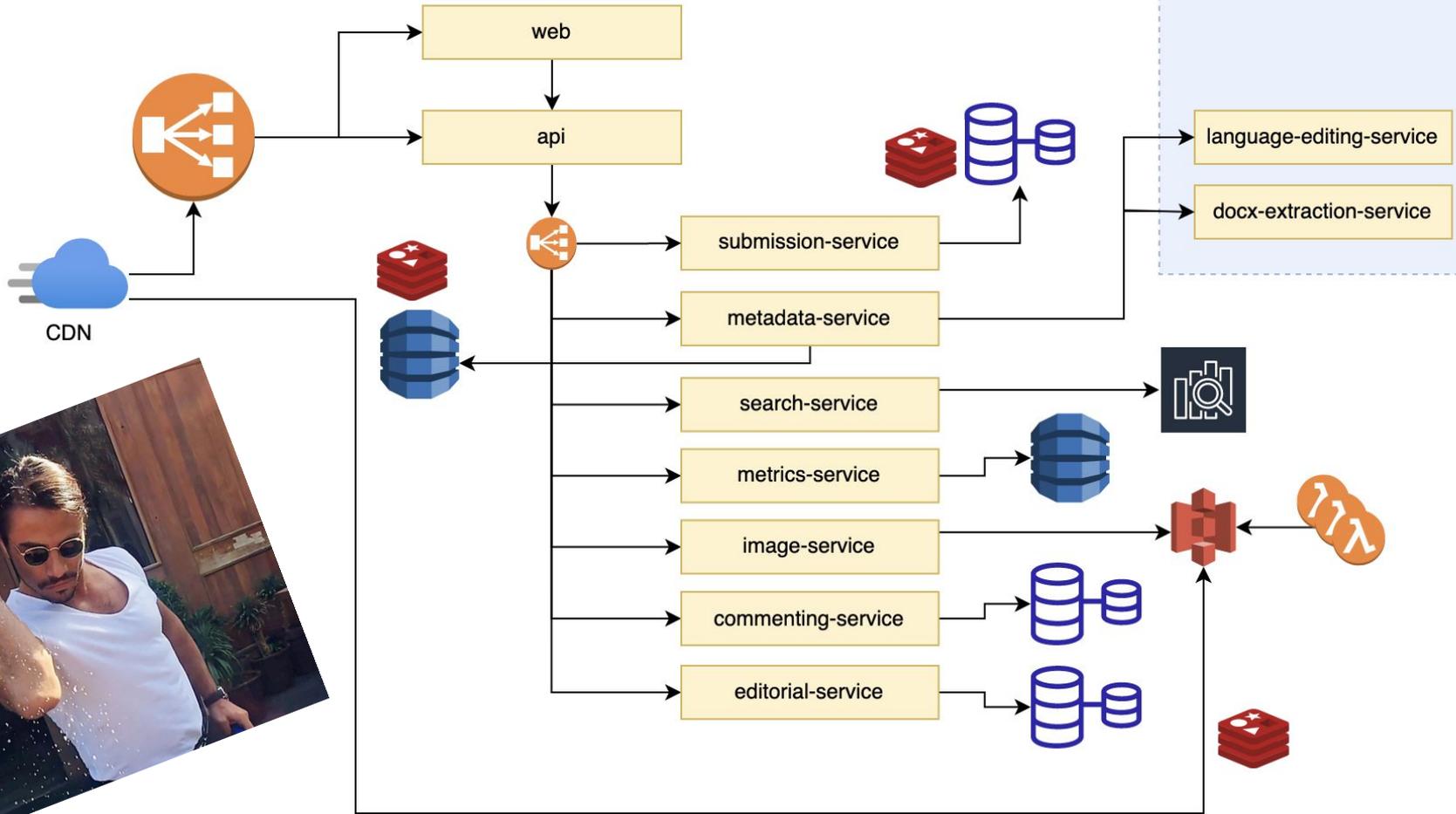






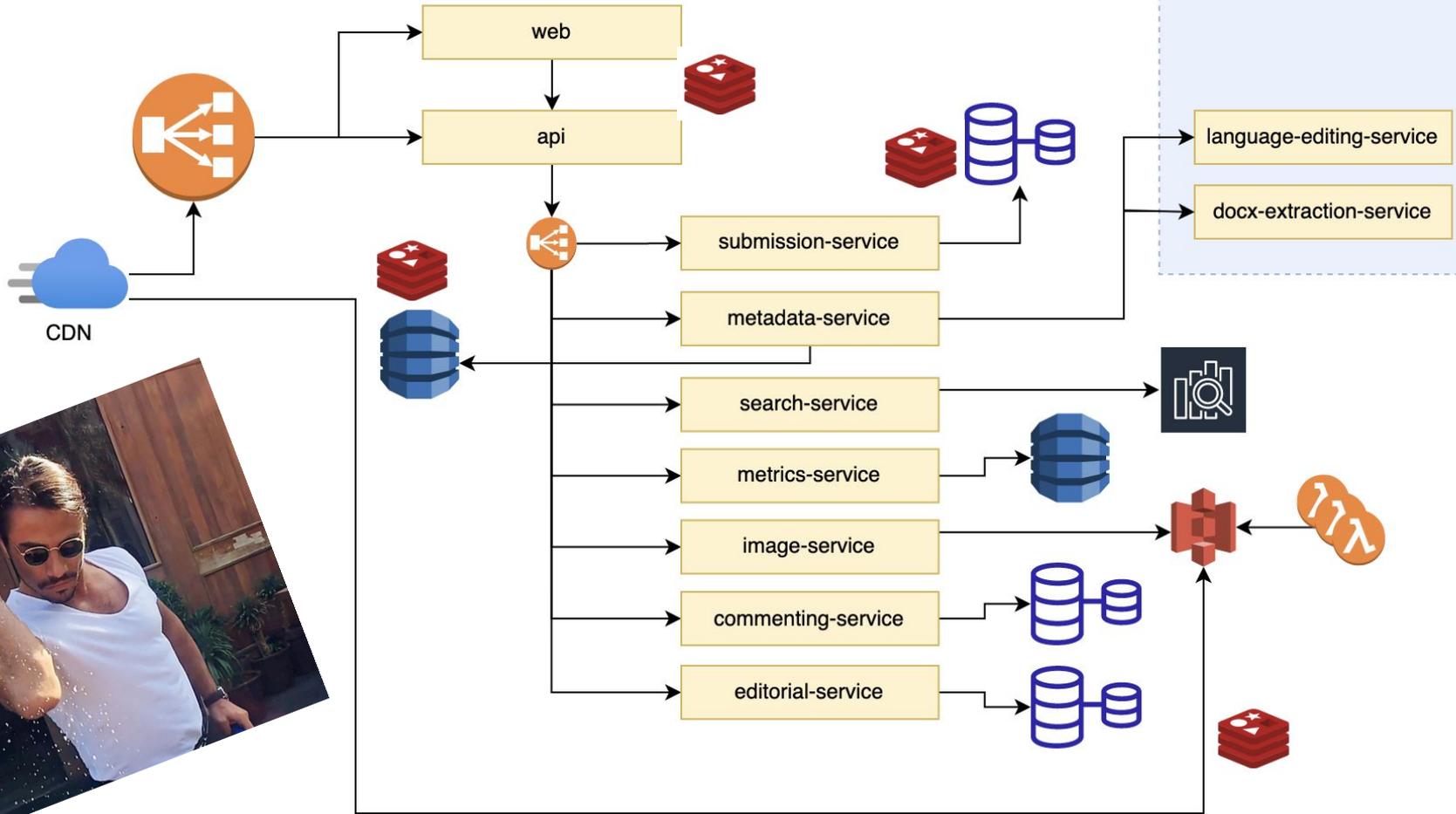


twitter.com/VicVijayakumar



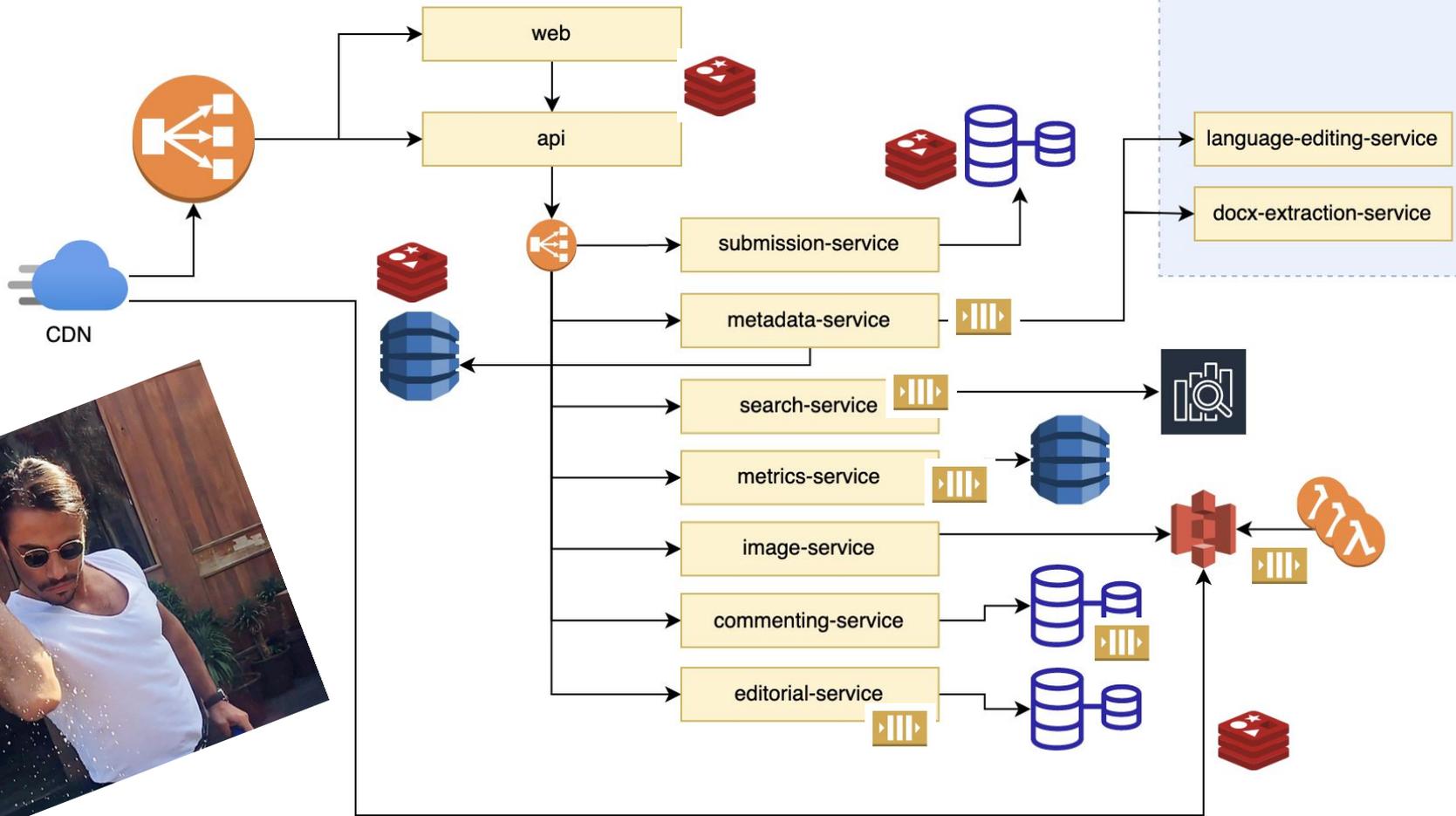


twitter.com/VicVijayakumar

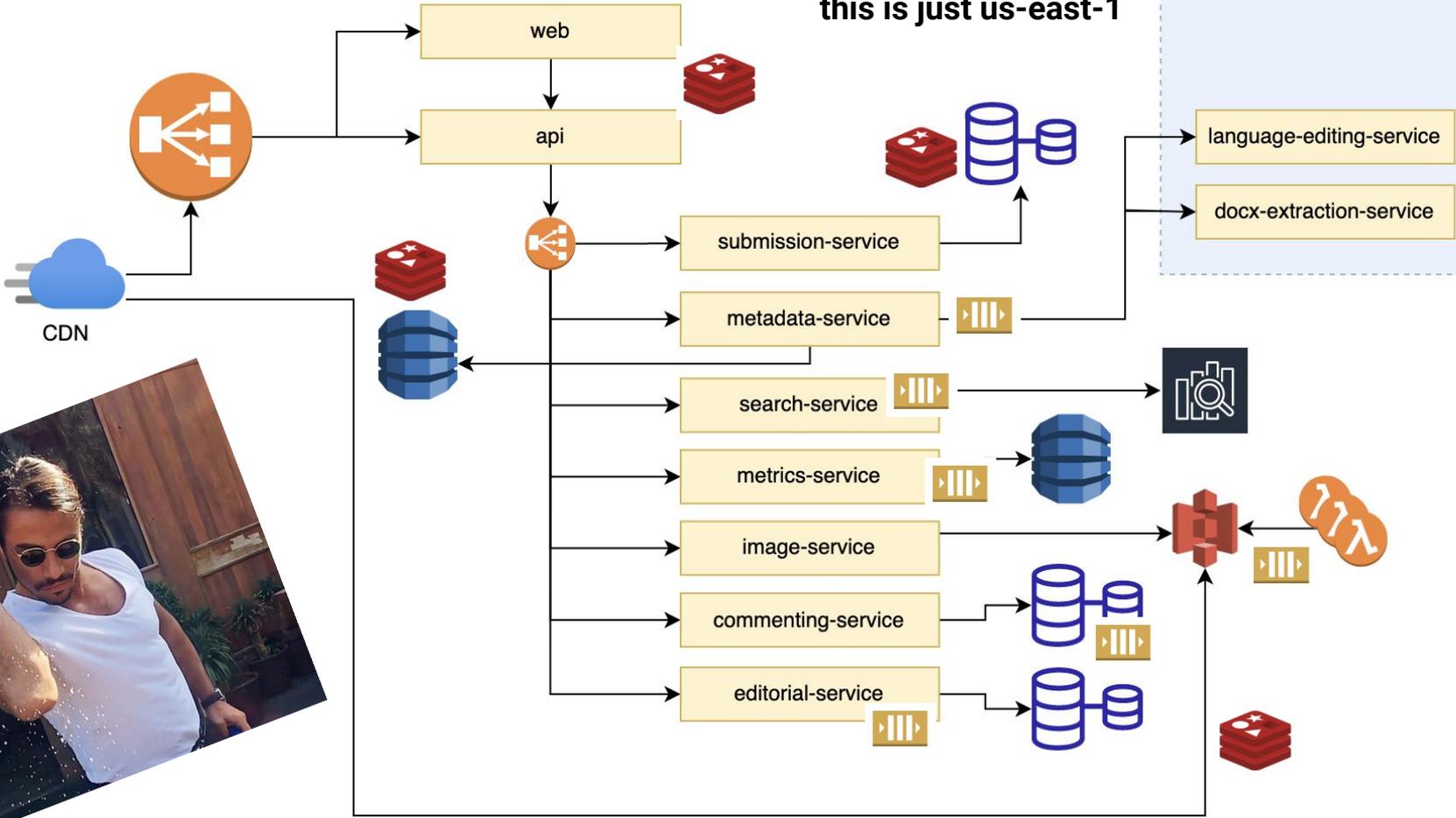




twitter.com/VicVijayakumar



this is just us-east-1



twitter.com/VicVijayakumar

What does the tech stack  
of a preprint server  
REALLY look like?

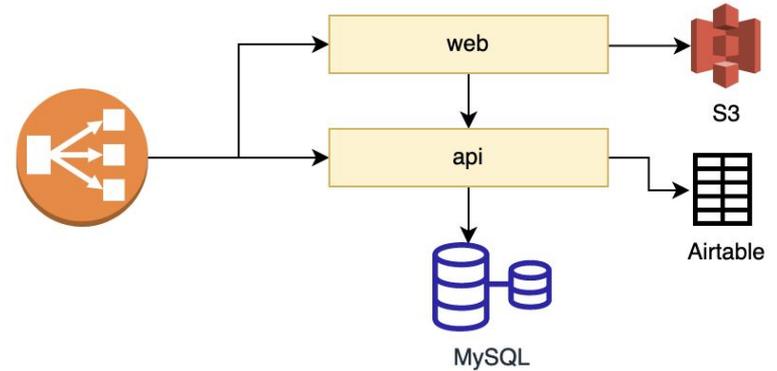
5

Make it cheap to fail

If we build it they will come is a lie.

What does the tech stack  
of an award-winning  
preprint server REALLY  
look like? (this time  
without the lies)

What does the tech stack  
of a preprint server  
REALLY look like? (this  
time without the lies)

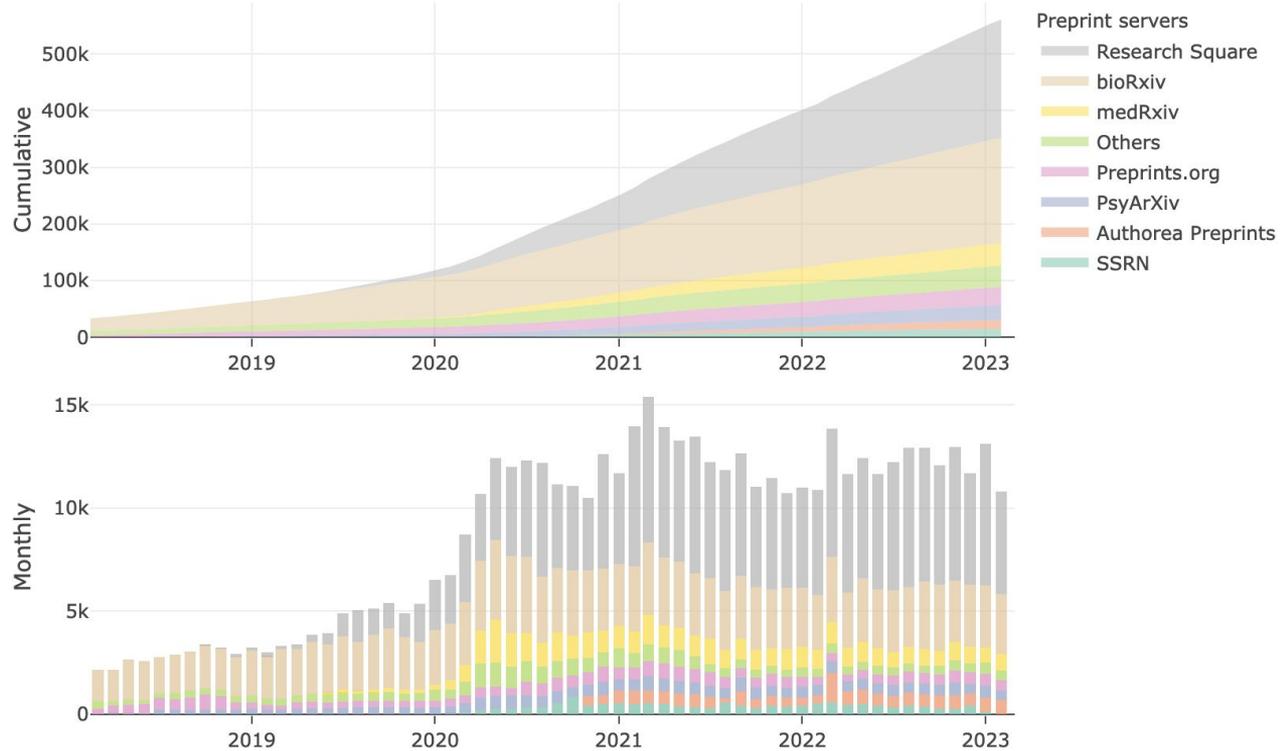


In 2022, we were named  
one of 95 companies on  
Fast Company's inaugural  
"Brands that Matter"  
list

[twitter.com/VicVijayakumar](https://twitter.com/VicVijayakumar)

TOO THIEVES | 300 ENTERTAINMENT | 3M |  
AARP STAYING SHARP | ADOBE |  
AEROFARMS | ALLBIRDS | ASANA |  
ATHLETIC BREWING CO. |  
BEATS BY DRE | BEN & JERRY'S |  
BEYOND MEAT | BUMBLE | CARE.COM |  
CARIUMA |  
COSMOPOLITAN MAGAZINE |  
C-SPAN | DESCOMPLICA | DISABILITY.IN |  
ETSY | FEEDING AMERICA | FIREFOX |  
FORD MOTOR CO. |  
GENERAL MOTORS |  
GOY'S LIVING FOODS | HACKERONE |  
HULU | IBM | IKEA | IMPOSSIBLE FOODS |  
INDEED | KING ARTHUR BAKING CO. |  
LETSOFTCHECKED | MAILCHIMP |  
MAM BABY | MASTERCLASS |  
MCDONALD'S |  
MEMORIAL SLOAN KETTERING CANCER CENTER |  
MUDITA |  
NATIONAL BASKETBALL  
ASSOCIATION  
NIKE | NO KID HUNGRY | OLD NAVY |  
PATAGONIA PROVISIONS | PAYPAL |  
PERKINS&WILL | PHILIPS | PLAYSTATION  
POPEYES | PRIMARY |  
PURDUE UNIVERSITY |  
RESEARCH SQUARE |  
ROTTEN TOMATOES | SESAME WORKSHOP |  
SHOPIFY | SLICE | SONOS | SQUARE |  
STEADY | SWEETGREEN |  
TEAMTREES | THREDUP |  
TRACKSMITH | TUPPERWARE |  
ULTA BEAUTY | US FOODS | VANS |  
VERSED | VITAL FARMS | WABBY PARKER |  
WORLD CENTRIC | XBOX | YETI |  
YUM! | ZOOM |

# 2018-2023



1. Talk to users
2. Talk to stakeholders
3. Ship early, ship often
4. Have a scaling plan
5. Make it cheap to fail

Thank you. You can find me at:

- twitter: [@VicVijayakumar](#)

- blog: [VicVijayakumar.com](#)

- newsletter: [vic.substack.com](#)

I love making friends. Write to me.