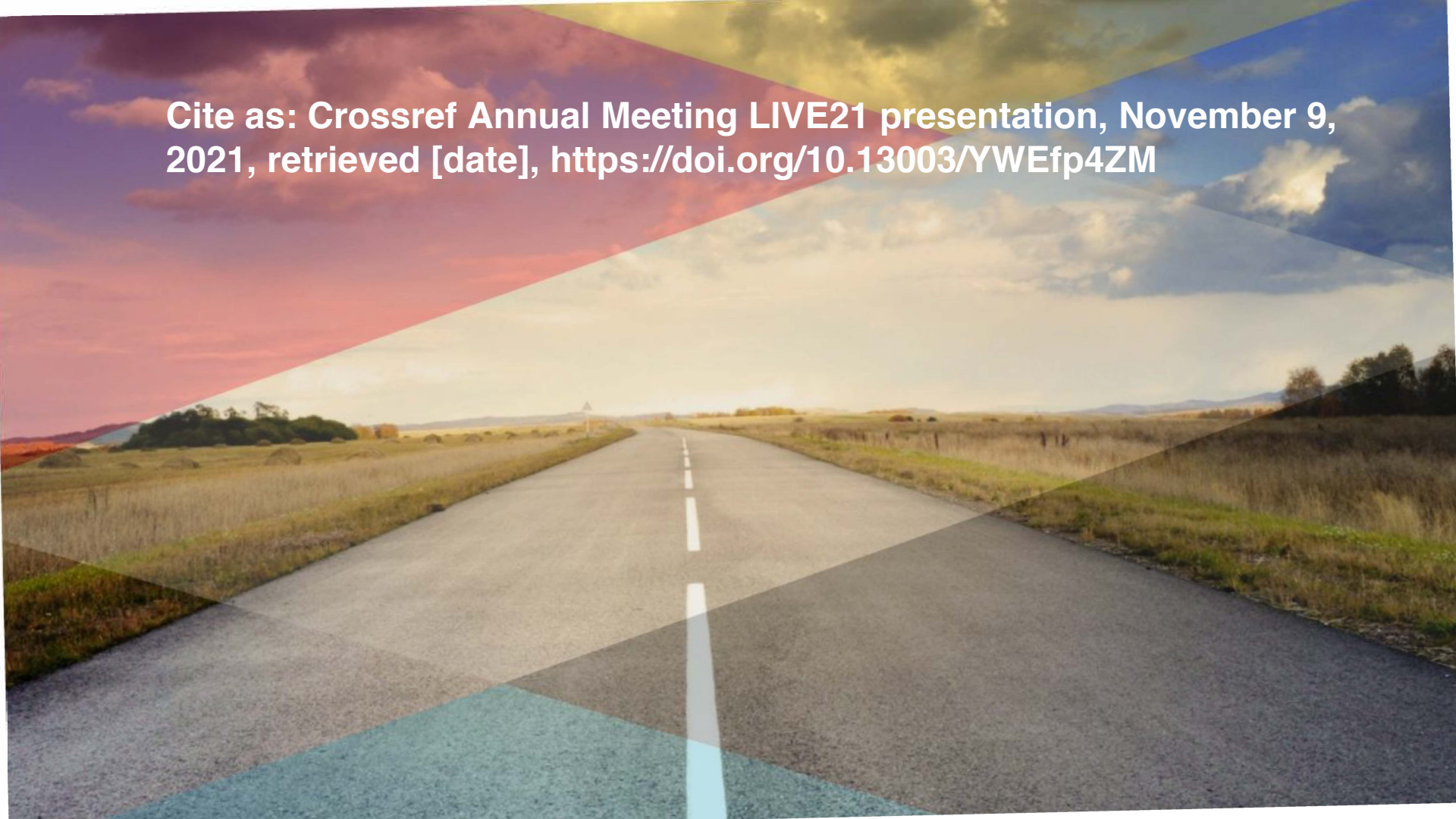


Cite as: Crossref Annual Meeting LIVE21 presentation, November 9, 2021, retrieved [date], <https://doi.org/10.13003/YWEfp4ZM>



**Come one, come all**  
**Welcome to our**  
**annual meeting**  
**#CRLIVE21**



@CrossrefOrg



# Crossref **LIVE** 21

## Agenda

WIB	UTC	
16:00	09:00	Welcome & orientation (Rosa)
16:05	09:05	Vision & strategy (Ed)
16:15	09:15	Our Path to POSI (Geoffrey)
16:25	09:25	Highlights of the Year (Ginny)
16:40	09:40	Priorities for 2022 (Bryan)
16:50	09:50	Q&A
17:10	10:10	Annual meeting and board election (Lucy)
17:30	10:30	Close

# Board election

## Tier 1, Small and mid-sized members

Member organization	Candidate standing	Title	Org type	Country
California Digital Library, University of California	Lisa Schiff	Associate Director, Publishing, Archives, and Digitization	Library	US
Center for Open Science	Nici Pfeiffer	Chief Product Officer	Researcher service	US
Melanoma Research Alliance	Kristen Mueller	Senior Director, Scientific Program	Research funder	US
Morressier	Sebastian Rose	Head of Data	Data repository	Germany
NISC	Mike Schramm	Managing Director	Publisher	South Africa

## Tier 2, Large members

Member organization	Candidate standing	Title	Org type	Country
AIP Publishing	Penelope Lewis	Chief Publishing Officer	Society	US
American Psychological Association (APA)	Jasper Simons	Chief Publishing Officer	Society	US
Association for Computing Machinery	Scott Delman	Director of Publications	Society	US

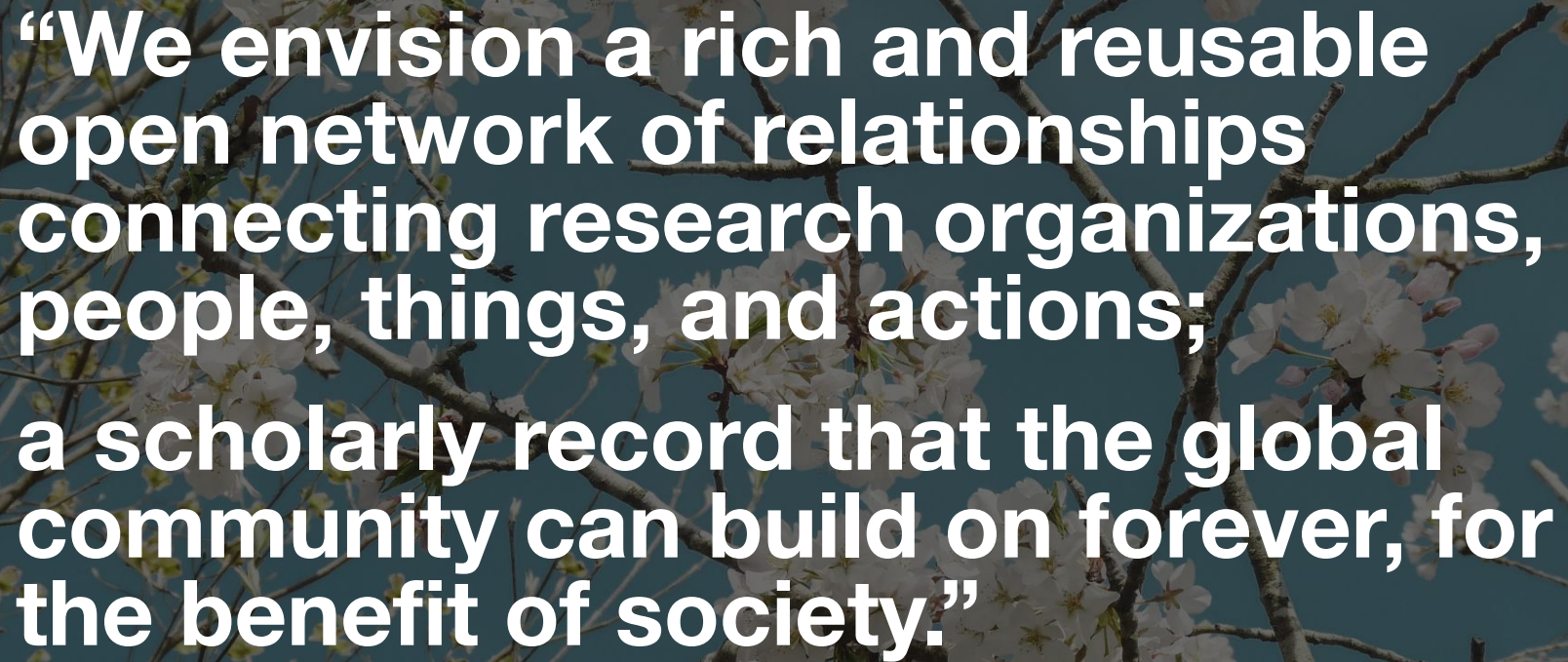
**If needed:**

Email Lucy at  
[lofiesh@crossref.org](mailto:lofiesh@crossref.org)

# Vision and strategy

Ed Pentz, Executive Director





**“We envision a rich and reusable  
open network of relationships  
connecting research organizations,  
people, things, and actions;  
a scholarly record that the global  
community can build on forever, for  
the benefit of society.”**

# Research Nexus vision



# Crossref strategic goals ([crossref.org/strategy](https://crossref.org/strategy))



**Bolster the team**



**Improve our metadata**



**Live up to POSI**



**Collaborate & partner**



**Engage communities**



**Simplify & enrich services**



# Bolster the team



This goal is all about people, support, culture, and resilience.

# Bolster the team

- Recruitment
  - Strategically add staff resources as members, content and services continue rapid growth.
  - 2021 hiring - additions to the the Product, Technology and Support teams - 2022 has additions to Product, Outreach and Technology
- Diversity, equity and inclusion
  - Reviewed and updated recruitment policies and procedures, staff handbooks, additional staff training
  - C4DISC Steering Committee
- Focusing on “distributed first” culture and working practices
- Focus on staff work/life balance in stressful times - flexible working, time off

# Live up to POSI



This goal is stated because we want to be held publicly accountable to the Principles of Scholarly Infrastructure standards of governance, insurance, and sustainability.

# Steps towards broad and more open governance

- 2017** Mission statement updated: “Make **research outputs** easy to find, cite, link, assess, and reuse [...] “to make **scholarly communications** better”.  
First board slate with an contested seat.
- 
- 2018** Membership definitions updated: “organizations that **produce** content”; content is...“professional and scholarly **materials**”.  
Board rebalanced for size; divided into small/large tiers.
- 
- 2020** Membership & Fees committee updated to includes a funder, a sponsor, a platform - in addition to small & large publishers.  
Board publicly adopts POSI to help Crossref forge closer partnerships.
- 
- 2021** Board specifically requests the Nominating Committee seek at least one funder for the slate.





# Engage communities

This goal centers on scale, strengthening relationships, community facilitation, and communications/content.





**From 2020 to 2021 we went  
from 12,500 to 15,500 members  
an increase of 24%**

# Improve metadata



This goal involves researching and communicating the value of richer, connected, and reusable, open metadata, and incentivising people to meet best practices, while also making it possible (and easier) to do so.

## Expansion of records and metadata

- Crossref has expanded record types we support: Books, Conference proceedings, Dissertations, Grants, Journals, Peer reviews, Preprints, Reports, Reviews, Working Papers, Standards. We know there are Protocols, Images, Museum Artefacts, and Blogs registered too.
- Crossref has expanded its metadata with links and relationships: corrections & retractions, licenses, funding information, contributors, preprint to VoR connections, affiliations via ROR IDs. Data citation and CREDIT are next.

# Metadata 20/20

## FIVE THINGS YOU CAN DO...

METADATA  
20/20

LEARN MORE - DO MORE  
[www.metadata2020.org](http://www.metadata2020.org)



sign the  
pledge



spread  
the word



join a working  
group



contribute  
a use case



educate  
yourself

# Improving metadata

I4OA - the Initiative for Open Abstracts launched one year ago

- All time, all works: 7.1%
- All time, journal articles: 9.0%
- 2.5m more abstracts than at the start of 2020
- 2020, journal articles: 25.4%
  - View your Participation Report
  - <https://www.crossref.org/members/prep>





Records	As of Oct 2020	As of Oct 2021	% change
Total records registered	118,315,539	128,840,942	9%
Number of Journals	84,413	95,822	14%
Number of Journal articles	84,288,893	90,450,390	7%
Number of Books	1,501,062	1,643,368	9%
Number of Book-related records	18,127,481	20,536,132	13%
Number of Conference proceedings	74,987	83,463	11%
Number of Conference papers	6,576,303	7,069,052	7%
<b>Number of Preprints</b>	<b>528,183</b>	<b>775,851</b>	<b>47%</b>
Number of Preprint-to-article links	120,655	172,887	43%
Number of Reports	635,210	674,409	6%
<b>Number of Peer reviews</b>	<b>111,782</b>	<b>207,934</b>	<b>86%</b>
Number of Standards	318,331	339,450	7%
Number of Components	4,619,503	5,276,035	14%
<b>Number of Databases</b>	<b>31,129</b>	<b>58,263</b>	<b>87%</b>
Number of Database-related records	1,967,199	2,132,614	8%
Number of Dissertations	338,739	463,554	37%
<b>Number of Grants</b>	<b>370</b>	<b>25,903</b>	<b>6901%</b>

Connections	As of Oct 2020	As of Oct 2021	% change
Number of unique records with Funder IDs	4,390,043	5,690,562	30%
Records with one or more authors with ORCID iDs	5,003,845	7,116,077	42%
Total unique ORCID iDs	2,881,106	3,947,090	37%
<b>Total works auto-pushed to ORCID</b>	<b>4,710,112</b>	<b>7,856,608</b>	<b>67%</b>
Members registering ORCID iDs	6,246	8,759	40%
Records with references	52,445,633	57,369,663	9%
Members registering references	5,845	7,212	23%
Members with open references	2,938	4,106	40%
<b>Records with abstracts</b>	<b>8,402,999</b>	<b>12,884,516</b>	<b>53%</b>
<b>Members registering abstracts</b>	<b>6,685</b>	<b>12,067</b>	<b>81%</b>
Crossmark content items	13,003,450	15,846,561	22%
Crossmark status updates	150,740	184,722	23%
Members participating in Crossmark	381	421	10%
Number of Cited-by matches	1,092,424,625	1,245,919,916	14%

# Relationships

"is-review-of": **445,399**,

"is-preprint-of": **173,182**,

"is-supplemented-by": **35,930**,

"is-version-of": **21,525**,

"is-translation-of": **3,233**,

"has-review": **175,608**,

"has-preprint": **116,232**,

"is-supplement-to": **31,901**,

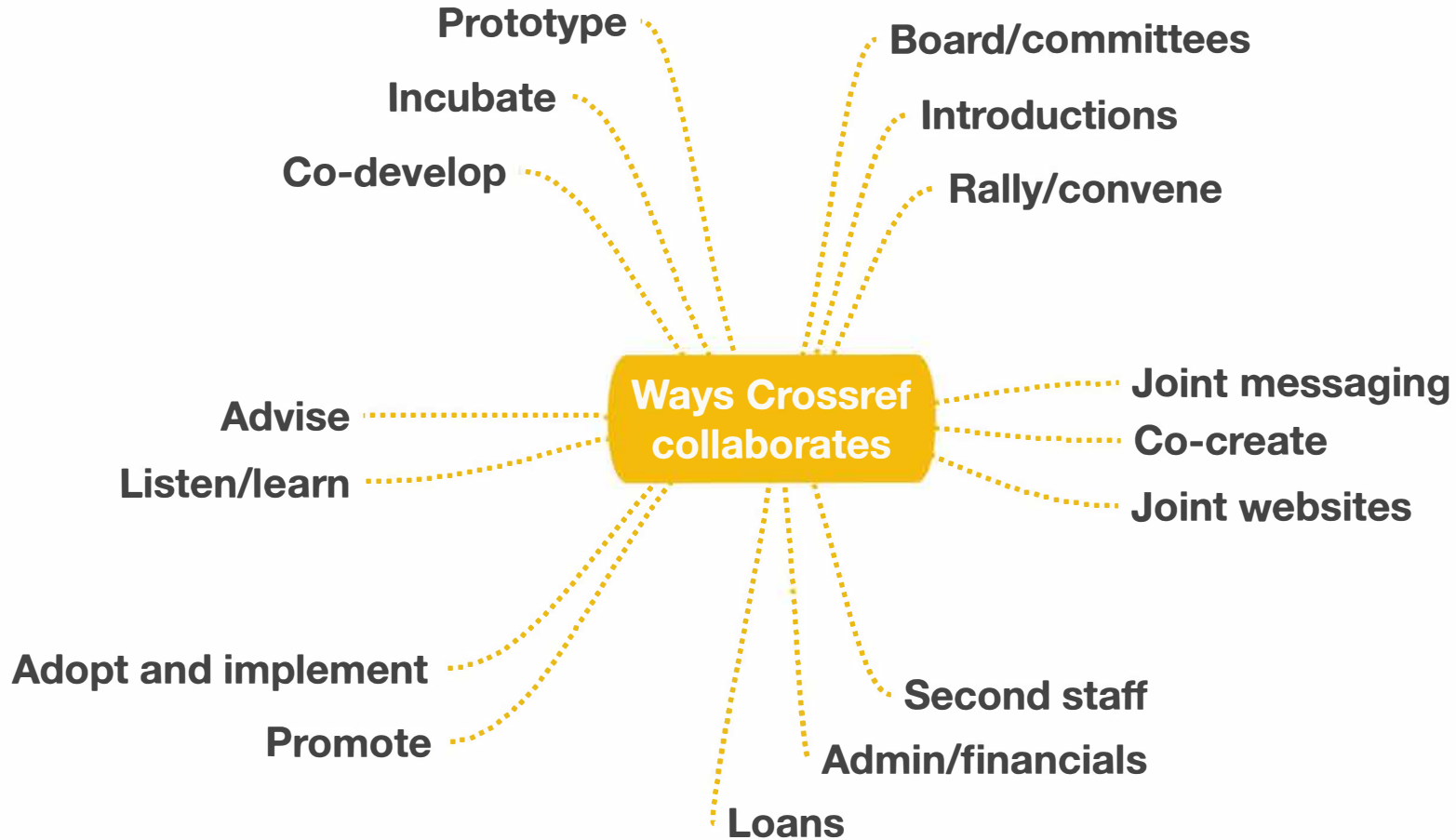
"has-version": **8,582**,

"has-translation": **2,030**,



# Collaborate & partner

We've always collaborated but we want to work even more closely with like-minded organisations to solve problems together.





Active technical  
and/or community  
collaborations

GORDON AND BETTY  
**MOORE**  
FOUNDATION

 **DOAJ**

 **UC3**  
UC Curation Center

 **DataCite**  
FIND, ACCESS, AND REUSE DATA

**PKP**  
PUBLIC  
KNOWLEDGE  
PROJECT

**<J4R>**  
JATS FOR REUSE

**STM**

 **switchboard**

**METADATA**  
20/20

**SCHOLIX**

**NISO**

**ROR**

**I40C**

**doi**

**CRT**

 **MAKE  
DATA  
COUNT**

 **Crossref**  
Event Data

**turnitin**

**ORCID**  
Connecting Research and Researchers

**ABS  
TRA  
CTS**



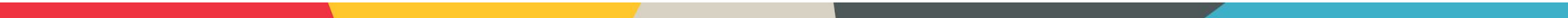
# Simplify services

This goal is all about focus. And about delivering easy-to-use tools that are critically important for our community.

# Crossref 2031

“We envision a rich and reusable open network of relationships connecting research organizations, people, things, and actions;

a scholarly record that the global community can build on forever, for the benefit of society.”



# Our path to POSI

Geoffrey Bilder, Director of Technology & Research





# The Principles of Open Scholarly Infrastructure



## GOVERNANCE

- Coverage across the research enterprise
- Stakeholder Governed
- Non-discriminatory membership
- Transparent operations
- Cannot lobby
- Living will
- Formal incentives to fulfil mission & wind-down



## SUSTAINABILITY

- Time-limited funds for time-limited activities
- Goal to generate surplus
- Goal to create contingency fund
- Mission-consistent revenue generation
- Revenue based on services, not data




## INSURANCE

- Open source
- Open data
- Available data
- Patent non-assertion

openscholarlyinfrastructure.org

The Principles of Open Scholarly Infrastructure

ABOUT POSSE FAQ FEEDBACK



# The Principles of Open Scholarly Infrastructure


## Governance

- **Coverage across the research enterprise** – it is increasingly clear that research transcends disciplines, geography, institutions and stakeholders. The infrastructure that supports it needs to do the same.
- **Stakeholder Governed** – a board-governed organisation drawn from the stakeholder community builds more confidence that the organisation will take decisions driven by community consensus and consideration of different interests.
- **Non-discriminatory membership** – we see the best option as an “opt-in” approach with a principle of non-discrimination where any stakeholder group may express an interest and should be welcome. The process of representation in day to day governance must also be inclusive with governance that reflects the demographics of the membership.
- **Transparent operations** – achieving trust in the selection of representatives to governance groups will be best achieved through transparent processes and operations in general (within the constraints of privacy laws).
- **Cannot lobby** – the community, not infrastructure organisations, should collectively drive regulatory change. An infrastructure organisation's role is to provide a base for others to work on and should depend on its community to support the creation of a legislative environment that affects it.
- **Living will** – a powerful way to create trust is to publicly describe a plan

openscholarlyinfrastructure.org

The Principles of Open Scholarly Infrastructure

ABOUT POSSE FAQ FEEDBACK



# FAQ

Frequently-answered questions

## How do I cite POSI?

Cite as Bilder G, Lin J, Neylon C (2020), The Principles of Open Scholarly Infrastructure, retrieved [date], <https://doi.org/10.24343/C34W2H>

## Do you have to meet all the commitments of POSI before you can adopt POSI?

No. For one thing, this would make it impossible for new organisations to adopt POSI. Our experience in the founding of infrastructure services like Dryad, DataCite, ORCID, ROR, and Crossref is that one of the biggest challenges to developing any new infrastructure is gaining the trust of the community. One powerful way to address the community's legitimate skepticism, is to adopt a set of operating principles from the start. They can then help to shape foundational decisions about governance, funding, and technology strategies. We would also like to see existing organisations adopt POSI as a statement of intent. Doing so provides their stakeholders with a set of concrete commitments against which the organisation can be measured.

## Isn't adopting POSI “Virtue Signalling?”

Yes. This shouldn't be surprising or contentious. Our entire scholarly communication system is based on virtue signalling. But, of course, the term “virtue signalling” (with



Home > Blog > Crossref's Board votes to adopt the Principles of Open Scholarly Infrastructure

33 minute read.

## Crossref's Board votes to adopt the Principles of Open Scholarly Infrastructure



Geoffrey Bilder – 2020 December 02  
In [Board](#), [Strategy](#), [Community](#), [Infrastructure](#), [Governance](#), [Sustainability](#), [Insurance](#), [News Release](#)

### TL;DR

On November 11th 2020, the Crossref Board voted to adopt the "Principles of Open Scholarly Infrastructure" (POSI). POSI is a list of sixteen commitments that will now guide the board, staff, and Crossref's development of an organisation into the future. It is an important public statement to make in Crossref's twentieth anniversary year. Crossref has followed principles since its founding, and meets most of the POSI, but publicly committing a codified and measurable set of principles is a big step. If 2019 was a [reflective turning point](#), and mid-2020 about [Crossref committing to open scholarly infrastructure](#) and collaboration, this is now announcing a very deliberate path. And we're just a little bit giddy about it.

Here is a picture of me being "giddy."

If you just want to see the principles that the board has endorsed, you can see them here:

<https://doi.org/10.24343/C34W2H>

But if you also want some background and want to understand some of the implications of Crossref adopting principles, read on...

Warning - this is a long post.

contingency fund by generating revenue in a way that ultimately hurts Crossref's mission.

4. The implication of #3 above is that it may take us some time to meet all of the commitments. But again, the community can measure our progress against meeting the commitments.

### So how does Crossref currently meet POSI?

#### Governance

- Coverage across the research enterprise.
- Non-discriminatory membership
- Transparent operations
- Cannot lobby
- Living will
- Formal incentives to fulfil mission & wind-down
- Stakeholder Governed

#### Sustainability

- Time-limited funds are used only for time-limited activities.
- Goal to generate surplus
- Goal to create contingency fund to support operations for 12 months
- Mission-consistent revenue generation
- Revenue based on services, not data

#### Insurance

- Available data (within constraints of privacy laws)
- Patent non-assertion
- Open source
- Open data (within constraints of privacy laws)

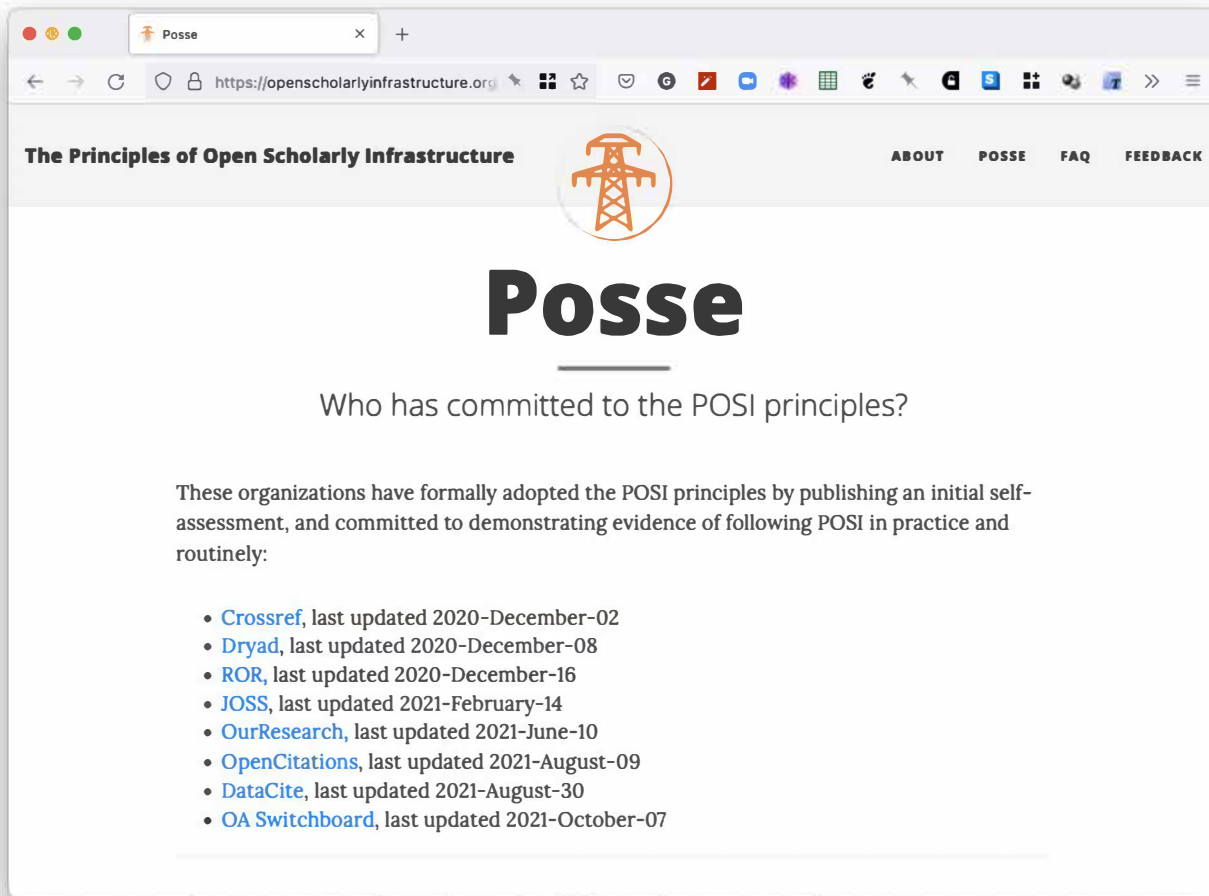
#### Governance

“If an infrastructure is successful and becomes critical to the community, we need to ensure it is not co-opted by particular interest groups. Similarly, we need to ensure that any organisation does not confuse serving itself with serving its stakeholders. How do we ensure that the system is run “humbly”, that it recognises it doesn't have a right to exist beyond the support it provides for the community and that it plans accordingly? How do we ensure that the system remains responsive to the changing needs of the community?”

– POSI

In the area of governance, Crossref clearly meets six of the seven criteria listed. We will discuss these first.





The Principles of Open Scholarly Infrastructure



ABOUT POSSE FAQ FEEDBACK

# Posse

Who has committed to the POSI principles?

These organizations have formally adopted the POSI principles by publishing an initial self-assessment, and committed to demonstrating evidence of following POSI in practice and routinely:

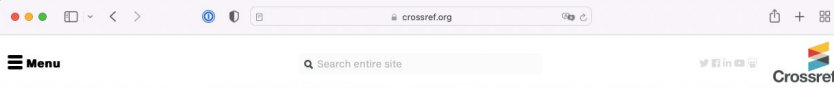
- [Crossref](#), last updated 2020-December-02
- [Dryad](#), last updated 2020-December-08
- [ROR](#), last updated 2020-December-16
- [JOSS](#), last updated 2021-February-14
- [OurResearch](#), last updated 2021-June-10
- [OpenCitations](#), last updated 2021-August-09
- [DataCite](#), last updated 2021-August-30
- [OA Switchboard](#), last updated 2021-October-07


# Steps towards broader community inclusivity

- 2020** Membership & Fees committee updated to includes a funder, a sponsor, a platform - in addition to small & large publishers.  
Board publicly adopts POSI to help Crossref forge closer partnerships.
- 
- 2021** Board specifically requests the Nominating Committee seek at least one funder for the slate.



# Transparent operations





## Sustainability & financials

Home > Sustainability & financials

Crossref is a not-for-profit 501(c)(3) organization. We are governed by a [board of directors](#) that our members elect. One of the critical roles of the board is to approve our annual budget and monitor our financial performance.

### Sustainability at Crossref

Revenue from Crossref's annual dues and services sustains operations. We strive to meet the five sustainability goals from the [Principles of Open Scholarly Infrastructure](#):

- Time-limited funds are used only for time-limited activities – day-to-day operations should be supported by day-to-day sustainable revenue sources.
- Goal to generate surplus – it is not enough to merely survive. Producing a small surplus allows us to respond nimbly to opportunities or weather economic downturns.
- Goal to create a contingency fund to support operations for 12 months – generating an operating surplus also allows us to create a separate fund that could support operations for a year.
- Mission-consistent revenue generation – any revenue we generate must be mission-aligned and not run counter to the aims of the organization.
- Revenue based on services, not data – data related to the running of the research enterprise should be community property. Appropriate revenue sources might include value-added services, consulting, API Service Level Agreements, or membership fees.

### Our financials

### Our financials


In recent years, we operate on a budget of around \$10 million (2019). About one-third of our revenue comes from annual dues (e.g., membership fees, subscriptions) and two-thirds from services (e.g., Content Registration, Scholarly Check Document checking). Our fees are set and reviewed by the Sustainability & Finance Committee, which includes our staff, board, and community members. This group also created a set of [the principles](#) which were approved by the board in 2016.

About two-thirds of our expenses are related to people – staff, benefits, and contracted support. One-third of our costs are everything else – housing costs, licensing fees, events, and costs to do business like banking fees and insurance.

Each year we strive to generate a small operating net and have been able to do so nearly every year.

We also maintain a reserve fund to support long-term sustainability. An Investment Committee was formed in 2011 to update our investing policies, and we will share more later this year.

Below is a look at how our operations have changed over time.



### Annual reporting

### 990 Return of Organization Exempt From Income Tax

For the calendar year ending 12/31/2019

OMB No. 1545-0047

Section 513(c)(2) of the Internal Revenue Code requires private foundations to file this return. Do not enter social security numbers on this form as it may be made public.

Do not check this box unless you are a tax-exempt foreign organization.

**A For the 2019 calendar year, or for your beginning and ending**

<b>1</b> Name of the organization	<b>2</b> Employer identification number
PUBLISHERS INTERNATIONAL LINKING ASSOCIATION, INC. D/B/A CROSSREF	22-2555
<b>3</b> Dotted line address (Do not include P.O. boxes or street address)	<b>4</b> Telephone number (Area code and number)
50 SALAM STREET	781-295-0072
<b>5</b> City or town or village or precinct, county and ZIP or foreign postal code	<b>6</b> State
LYNNFIELD, MA 01940	MA
<b>7</b> Form and address of principal officer (Do not include P.O. boxes or street address)	<b>8</b> Title
GAMM, AS C ABOVE	AS C ABOVE
<b>9</b> Form and address of principal officer (Do not include P.O. boxes or street address)	<b>10</b> Title
ROBERT P. FRYE	AS C ABOVE
<b>11</b> Form and address of principal officer (Do not include P.O. boxes or street address)	<b>12</b> Title
ROBERT P. FRYE	AS C ABOVE
<b>13</b> Form and address of principal officer (Do not include P.O. boxes or street address)	<b>14</b> Title
ROBERT P. FRYE	AS C ABOVE

**Part I Summary**

Line	Amount	Amount
<b>1</b> Total revenue	10,130,935	10,130,935
<b>2</b> Total expenses	8,486,146	8,486,146
<b>3</b> Total assets	10,130,935	10,130,935
<b>4</b> Total liabilities	10,130,935	10,130,935
<b>5</b> Total net assets	8,486,146	8,486,146



# Crossref **LIVE** 21

## Agenda

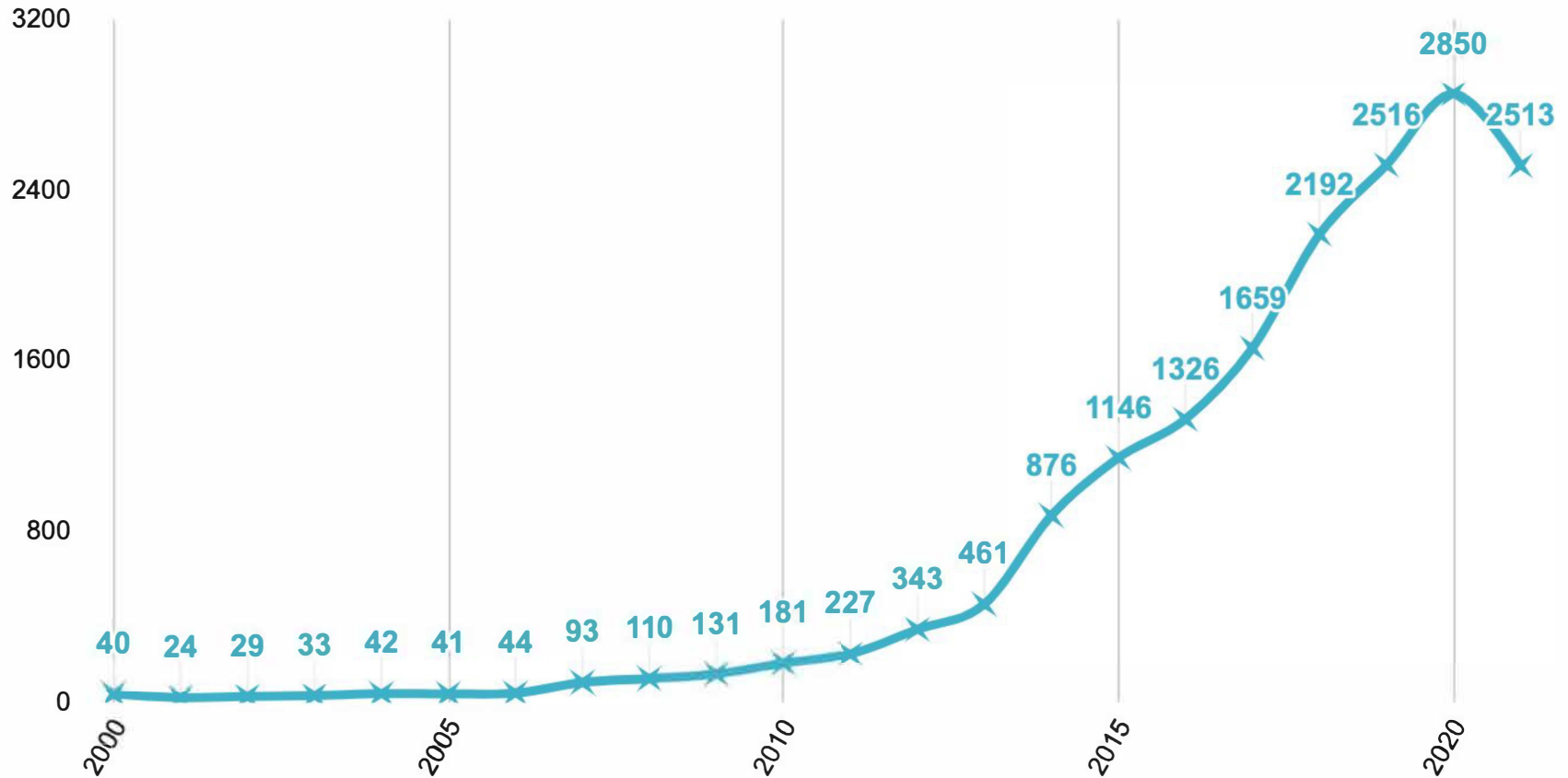
WIT	UTC	
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16:50	09:50	Q&A
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17:30	10:30	Close

# Highlights of the year 2021

Ginny Hendricks, Director of Member and  
Community Outreach



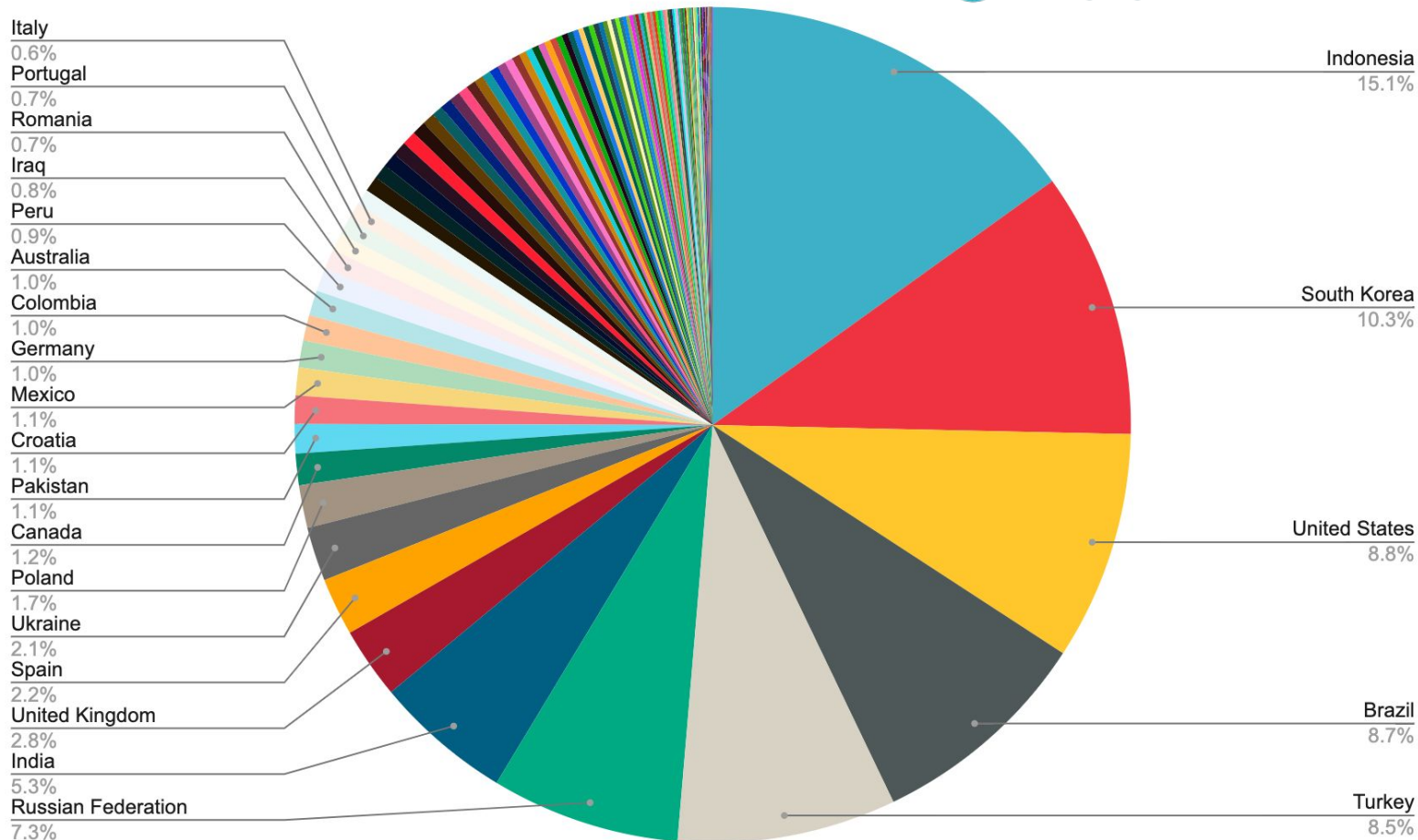
## Number of new members joining Crossref each year



# Member countries - total



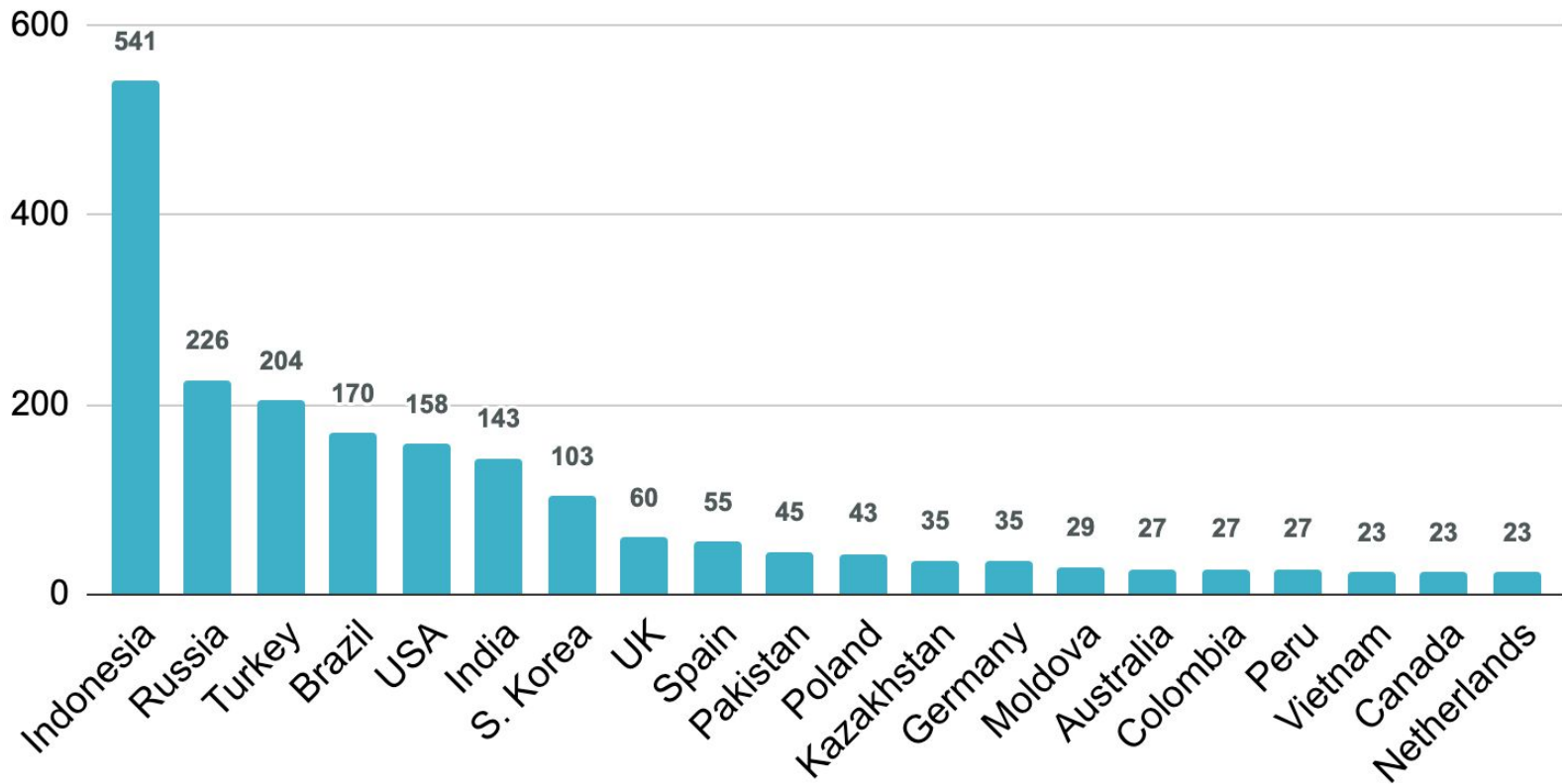
Engage communities



# Trending countries



Engage communities





# Emerging countries






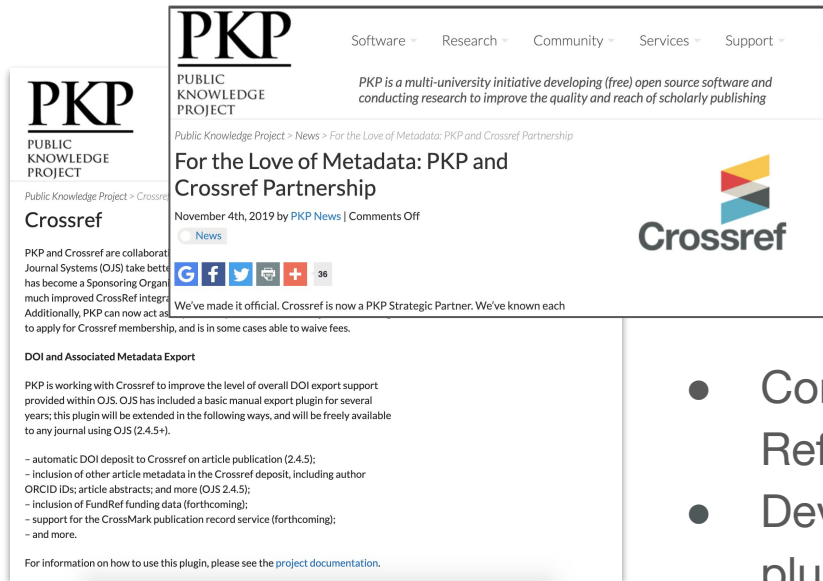
Engage communities

Angola  
Barbados  
Benin  
Botswana  
Brunei Darussalam  
Burkina Faso  
Cambodia  
Cameroon  
Central African Republic  
El Salvador  
Faroe Islands  
Fiji  
Guyana  
Haiti

Laos  
Luxembourg  
Madagascar  
Malawi  
Malta  
Monaco  
Myanmar  
Namibia  
Samoa  
Tunisia  
Turks and Caicos Islands  
Uganda  
Zimbabwe

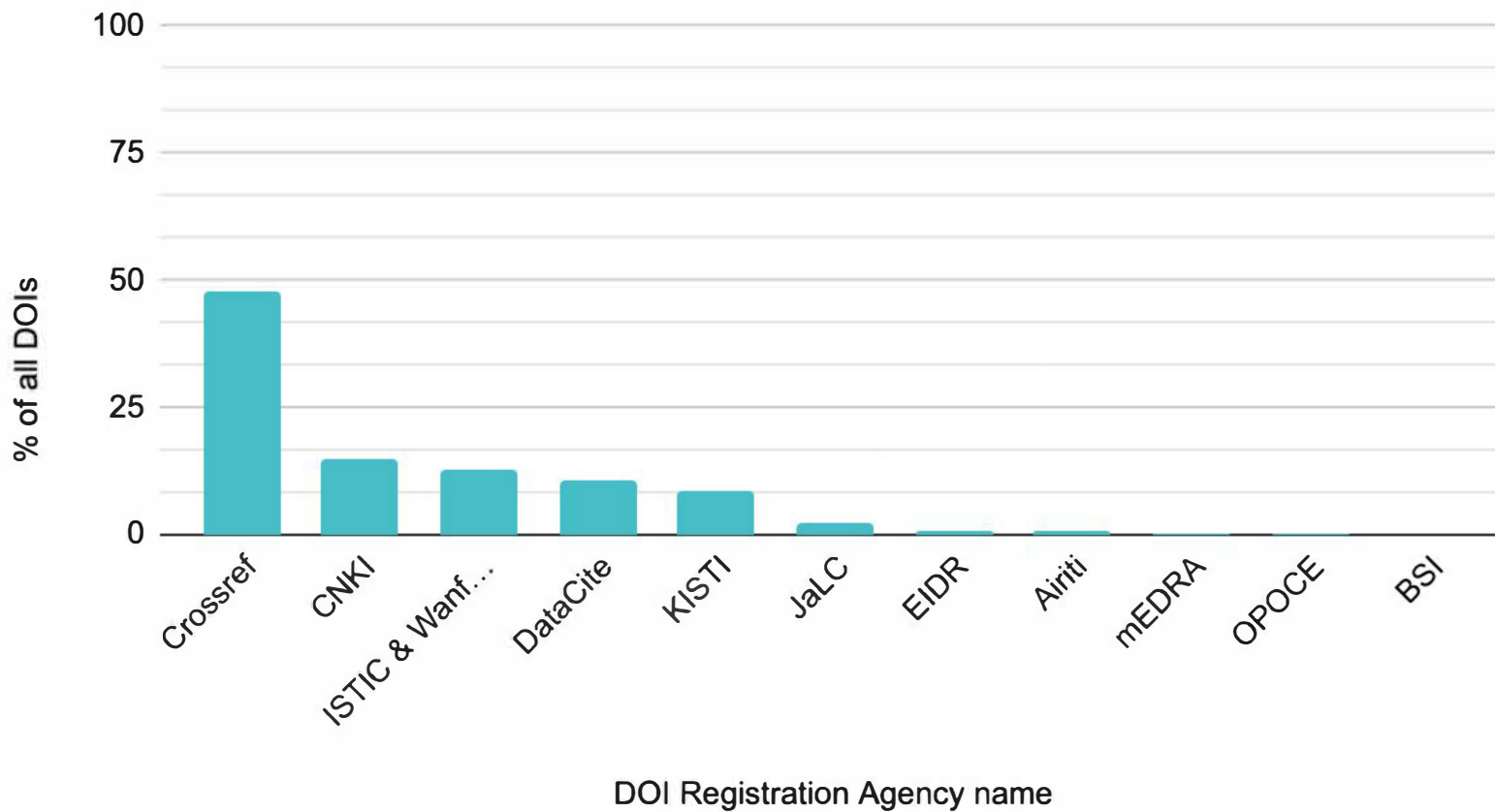
# PKP partnerships & integrations

 Collaborate & partner  
 Improve our metadata  
 Simplify & enrich services

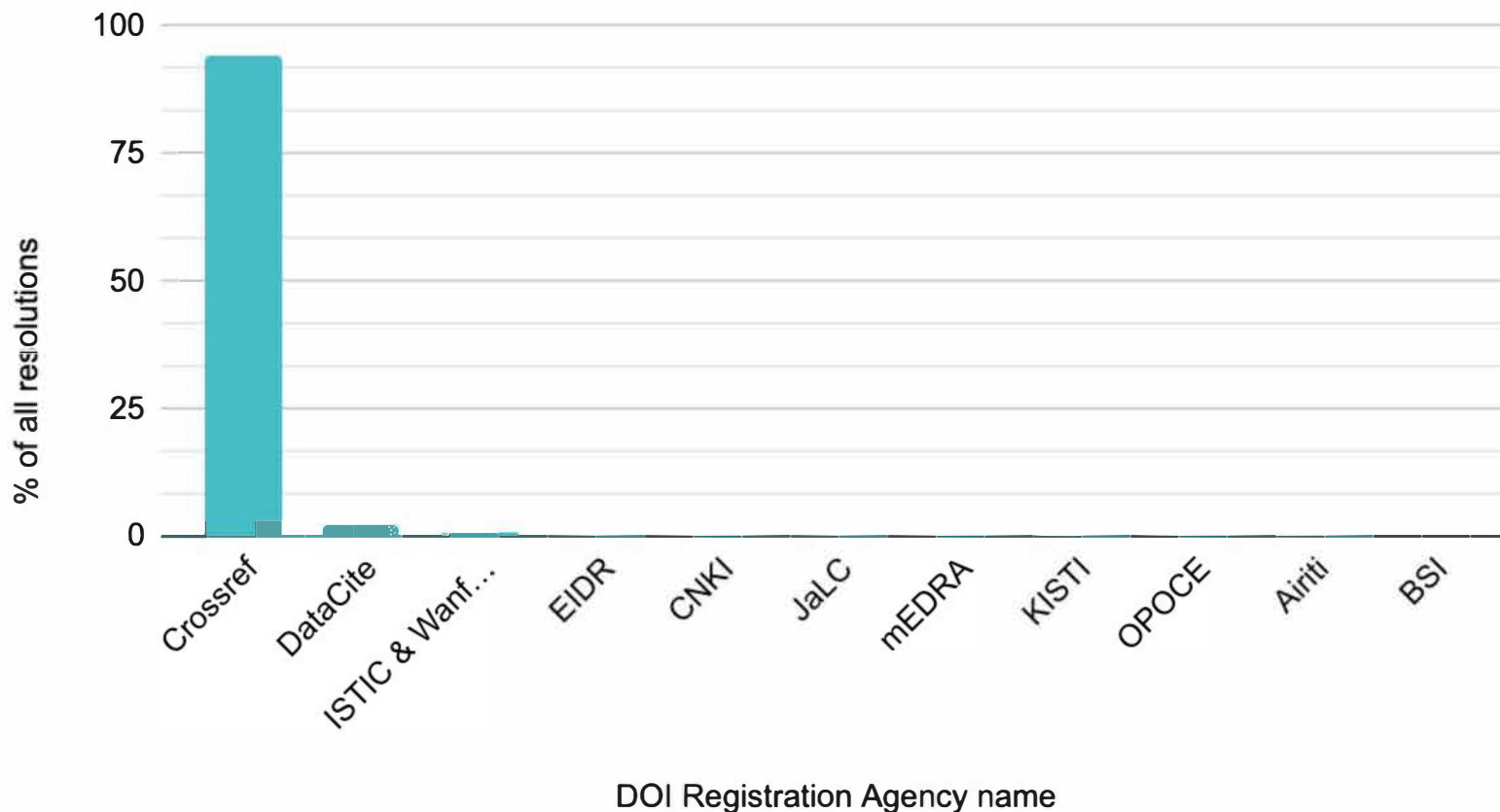


- Completed development of new Reference Linking and Cited-by plugins
- Development continues on Crossmark plugin
- Simplified general DOI management and consolidated Crossref plugins to be included in upcoming OJS v3.4

## Share of all DOIs (272.5 million total)



## Share of all DOI resolutions Jan-Sep 2021 (7.2 billion)



Identifiers are necessary  
**but they are not sufficient**

# Similarity Check progress

Used by editors to detect text overlap with previously published work that may indicate plagiarism of scholarly or professional works to determine originality.

- Member obligation: 90% full-text URLs
- Transition to new terms nearly complete
- v2 of iThenticate launched in September for new 'native' users. API Integration with manuscript tracking systems ongoing
- New interface; preprint exclusion filter; upload capacity; hidden character detection; annotations
- 10 million documents checked each year



# Research Organization Registry (ROR)

- Adoption lead hired; supporting additional metadata (based on GRID) in the ROR API and data dump; curation workflow progressing; API Users' Group and Adoption working groups.
- Crossref accepting ROR IDs in our schema! (DataCite & Dryad already support). ORCID now integrating ROR IDs too.

```
<affiliation>  
<institution country="AU">University of New South Wales</institution>  
<ROR>https://ror.org/03r8z3t63</ROR>  
</affiliation>
```



# ORCID auto-update

- We have nearly 4 million unique ORCID iDs
- Making 13.5 million ORCID iD/Work pairs
- We've pushed nearly 8 million works to ORCID iDs

All time:

- Authors granting 1,673,842 (49%)
- Authors denying 651,831 (19%)
- Authors not responding 1,098,158 (32%)

Q3 2021

- Authors granting 83%
- Authors denying 6%
- Authors not responding 11%



	Q3 2020		Q3 2021	
Authors granting	99,070	58%	187,891	83%
Authors denying	15,307	9%	13,589	6%
Authors not responding	55,660	33%	24,913	11%
	<b>170,037</b>		<b>226,394</b>	

# Infrastructure improvements

- Provisioned new cloud-based infrastructure
- Migrated REST API from SOLR to Elasticsearch and from the datacenter to the cloud
- Started to transition other services to the cloud, such as Content Negotiation
- Stabilised Event Data (99.2% uptime this year)
- New user credentials for access to Crossref tools



# Research funders are helping to



Paint a richer picture  
of research support



Maintain a healthier  
research environment



Provide easier, more  
accurate analysis

**By registering, managing, and distributing  
openly-available metadata about grants  
and related support that will track through  
the research process to benefit everyone**

# Who is registering grant records?

Wellcome	16411
US Department of Energy	7225
Children's Tumor Foundation	623
James S. McDonnell Foundation	551
The ALS Association	429
Melanoma Research Alliance	392
Gordon and Betty Moore Foundation	85
American Cancer Society	80
Australian Research Data Commons (ARDC)	57
International Anesthesia Research Society	34
Simons Foundation	6
Tuberous Sclerosis Alliance	3
CurePSP, Inc.	2

# Who is registering grant records?

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Gordon and Betty Moore Foundation	85
American Cancer Society	80
Australian Research Data Commons (ARDC)	57
International Anesthesia Research Society	34
Simons Foundation	6
Tuberous Sclerosis Alliance	3
CurePSP, Inc.	2

[https://api.crossref.org/types/grant/works?rows=0&facet=funder-name:\\*](https://api.crossref.org/types/grant/works?rows=0&facet=funder-name:*)



# Who is registering grant records?

Wellcome	16411
US Department of Energy	7225
Children's Tumor Foundation	623
James S. McDonnell Foundation	551
The ALS Association	429
Melanoma Research Alliance	392
Gordon and Betty Moore Foundation	85
American Cancer Society	80
Australian Research Data Commons (ARDC)	57
International Anesthesia Research Society	34
Simons Foundation	6
Tuberous Sclerosis Alliance	3
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[https://api.crossref.org/types/grant/works?rows=0&facet=funder-name:\\*](https://api.crossref.org/types/grant/works?rows=0&facet=funder-name:*)



# Who is registering grant records?



[https://api.crossref.org/types/grant/works?rows=0&facet=funder-name:\\*](https://api.crossref.org/types/grant/works?rows=0&facet=funder-name:*)

[crossref.org/blog/come-and-get-your-grant-metadata](https://crossref.org/blog/come-and-get-your-grant-metadata)

# Priorities for 2022


Bryan Vickery, Director of Product

# The roadmap

### About this board

Tip: on desktop hit the F key to filter this board by label(s). You can then bookmark or link to that filtered board. In the Trello app use the Search function via the magnifying glass icon at the top of the screen

Colour key (tip for editors)



Welcome to our public roadmap. It provides high-level information about the things we're working on - which is quite a lot. It covers governance, strategy and community initiatives, the Crossref platform, and all our products and services. You'll find the labels useful. We update it frequently, though any dates are tentative and subject to change. Many cards will link you to feedback surveys, or our community forum where you can discuss these topics with us, our members, and the wider community. Some links might be to detailed plans in google docs/sheets glib tickets and most are publicly available.

Feedback needed

We are actively seeking feedback where you see the Community Forum logo. Of course, we value your feedback on anything, at any time.

Team: Tech (Labs/R&D)

Generic card to link to a tab

+ Add a card

### Research & planning

Service: Metadata APIs (REST ...)

Service: Metadata Retrieval

Team: Product (PMs)

Strategic goal: Simplify services

Who: Metadata users

Research the deprecation of old APIs

1/1

Product theme: Schema

Service: Metadata APIs (REST ...)

Service: Metadata Retrieval

Team: Product (PMs)

Team: Tech (software develop...)

Strategic goal: Enrich services

REST API updates to support Schema 5.0 changes

Service: Funder Registry

Strategic goal: Collaborate & p...

Strategic goal: Enrich services

Objective: Toil reduction

Components: Identifiers

Refactoring the Funder Registry

0/1

Record type: Preprints

Team: Tech (Labs/R&D)

Strategic goal: Enrich services

Strategic goal: Improve metad...

Components: Activity stream

Components: Reporting

Improve preprint to Version of Record (VoR) matching and notifications

0/2

Product theme: Schema

Service: Content Registration

Refactor common schema elements

Product theme: Schema

Service: Content Registration

Service: Metadata APIs (REST ...)

+ Add a card

### Up next

Service: Metadata APIs (REST ...)

Service: Metadata Retrieval

Team: Product (PMs)

Team: Tech (software develop...)

Strategic goal: Enrich services

Strategic goal: Improve metad...

REST API bug fixes and improvements

Product theme: My Crossref

Product theme: UI / UX

Tool: Participation reports

Strategic goal: Simplify services

Objective: Toil reduction

Components: Reporting

Participation Reports user interface refresh

Product theme: UI / UX

Tool: STQ

Strategic goal: Enrich services

Strategic goal: Simplify services

Improvements to matching references UI

Service: Content Registration

Service: Metadata Manager

Team: Product (PMs)

Strategic goal: Simplify services

Metadata Manager deprecation

Service: Similarity Check

Strategic goal: Enrich services

Migrate members who are 'native' users of iThenticate to v2

2/5 - 8 Nov

Service: Similarity Check

Strategic goal: Enrich services

Who: Service providers

Similarity Check v2 API interactions: QJS

+ Add a card

### In progress

Service: ORCID Auto-update

Record type: ORCID-related

Strategic goal: Collaborate & p...

Strategic goal: Enrich services

Enhancements to ORCID Autoupdate

Service: Data citation

Service: Event Data

Strategic goal: Simplify services

Adding relationships between Crossref records to Event Data

1/3

Product theme: My Crossref

Product theme: UI / UX

Service: Content Registration

Service: Metadata Manager

Record type: Grants

Strategic goal: Simplify services

Objective: Toil reduction

Productionize 'Form builder' POC for registration UIs

Product theme: My Crossref

Product theme: UI / UX

My Crossref Framework

Product theme: UI / UX

Service: Content Registration

Content Registration design thinking

Product theme: Schema

Record type: ROR-related

Team: Outreach (Community E...)

Team: Outreach (Metadata)

Strategic goal: Collaborate & p...

Strategic goal: Improve metad...

Who: Collaborators - open infr...

ROR adoption

+ Add a card

### In testing

Product theme: My Crossref

Service: Accounting system

Service: Payment Portal

Team: Finance & Ops (Billing)

Strategic goal: Enrich services

Components: Billing

Improve payment portal

Service: Similarity Check

Strategic goal: Enrich services

Ability for members to share similarity report with Authors

1/1

+ Add a card

### Adoption & engagement

Record type: Grants

Team: Outreach (Community E...)

Strategic goal: Engage commu...

Who: Governing board

Who: Metadata users

Who: Research funders

Who: Service providers

Funder engagement & adoption

0/5

Service: Content Registration

Record type: Grants

Team: Outreach (Community E...)

Strategic goal: Engage commu...

Strategic goal: Simplify services

Who: Research funders

Grow number of grants being registered

Team: Outreach (Community E...)

Strategic goal: Engage commu...

Community forum management

1/1

Team: Directors

Strategic goal: Collaborate & p...

Strategic goal: Live up to PQSI

Collab with others on PQSI awareness

Service: Metadata Plus

Service: Metadata Retrieval

Team: Tech (Infrastructure - A...)

Strategic goal: Enrich services

REST API migration to Elasticsearch

1/1

+ Add a card

### Recently completed

Service: Metadata APIs (R...

Service: Metadata Retrieval

Record type: Grants

Strategic goal: Engage co...

Strategic goal: Enrich ser...

Who: Research funders

Grants available via REST

10 May - 26 Oct

Product theme: My Crossref

Product theme: UI / UX

Service: Content Registration

Service: Metadata Manager

Tool: Web Deposit Form

Record type: Grants

Strategic goal: Simplify se...

Objective: Toil reduction

'Form builder' proof-of-concept registration UIs

12 Apr - 31 Aug

Team: Finance & Ops (Gov)

Strategic goal: Live up to PQSI

Who: Governing board

Who: Research funders

Evolving governance: 202 potential new board mem

Service: Metadata Plus

Service: Funder Registry

Strategic goal: Enrich ser...

Strategic goal: Improve m...

Funder registry v1.36

10 Sep

+ Add a card

[bit.ly/crossref-roadmap](https://bit.ly/crossref-roadmap)

# Key theme: improving the security of our technology

- Migrate services to our cloud infrastructure
  - Internal API pool
  - Crossmark, Participation Reports, Metadata Search...
- Improvements to monitoring and metrics
- Starting the migration of the main content system
- Building new infrastructure to support Event Data and our Research Nexus vision with a new metadata model

# Key theme: research nexus

- track research objects, metadata, and the connections between them, as well as who made the assertion
- accept data from Crossref members, Crossref Agents, and other members of the scholarly community
- bring them together in one single research graph
- power a number of APIs, such as the REST API, Content Negotiation, Funder Registry, Event Data and more



# Key theme: supporting growth

## My Crossref

- Authentication
  - Self-service API-key management for Plus users
  - User management
  - API-keys as a means of authentication for Members, Service Providers and Sponsors
- Content Registration user interface
  - Deliver new registration UI for grant records
  - Roll-out new UI to other key objects and entities
    - Journal articles, Books, Book chapters...
- Reporting
  - Consolidation of reports into a single interface
  - Update to Participation Reports



# Key theme: collaborations

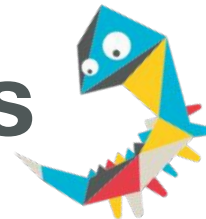
- Disseminating ROR IDs via our APIs and supporting it across our other tools
- Continued improvements to our ORCID integrations
- Adding new integrations with PKP
  - OJS integrations with Similarity Check
- Data Citation / Scholix
- DOAJ and Diamond OA Journals analyses
- CRediT - contributor roles taxonomy

# Key theme: enabling research integrity

- Metadata as signals of integrity/trust already a key part of our work (see Similarity Check, Crossmark, funding data, etc.)
- Reports of deceptive behaviour among members rare but increasing
- Board action to reconsider Crossref's role in helping the community assess legitimacy (not quality)
- Plan to work with key partners like COPE, and DOAJ to review processes. Will seek a consultant to form a working group



# Community-sourced corrections

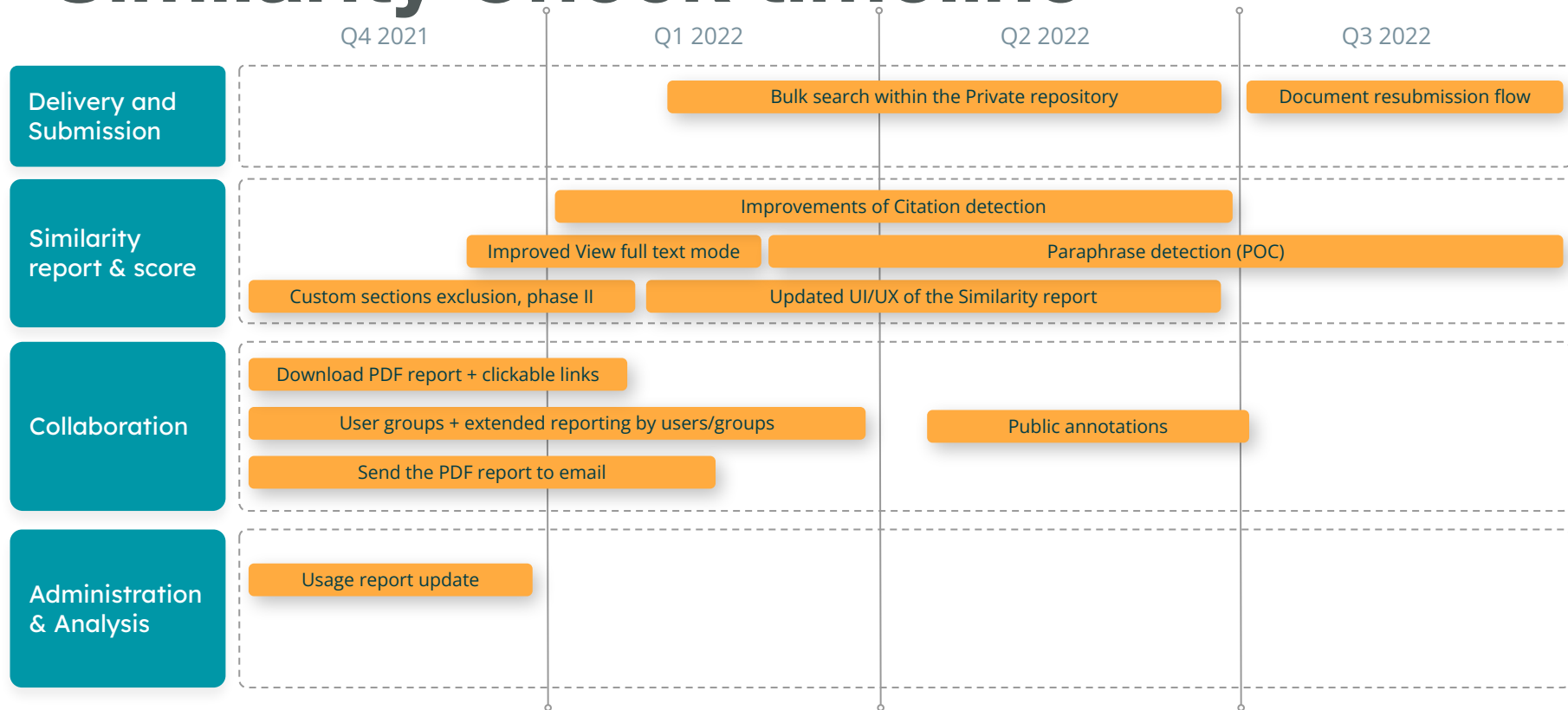


- Finding a good way for Crossref to help members to generally improve their metadata through crowdsourced information
- In 2022 we'll aim to further a pilot project that aims to:
  - Determine whether an article instance is flagged as retracted on a given site
  - Link retracted papers to retraction notices (expressions of concern as a potential further subset)
  - Share our findings with the community and think about ways to support the ingest of this information into Crossref metadata

# Similarity Check

- New 'native' users are already starting to use the new version launched in September
- Existing 'native' users already being contacted about transitioning
- Working with manuscript tracking systems to integrate with the new API
- Helping participants migrate as their MTSs integrate
- Research highlighted a need for improved or new tools to detect paraphrasing/AI-written papers as well as image manipulation

# Similarity Check timeline



# Similarity Check

Survey: Researching image integrity / image manipulation detection

- <https://bit.ly/image-integrity>



# Crossref **LIVE** 21

## Agenda

WIT	UTC	
16:00	09:00	Welcome & orientation (Rosa)
16:05	09:05	Vision & strategy (Ed)
16:15	09:15	Our Path to POSI (Geoffrey)
16:25	09:25	Highlights of the Year (Ginny)
16:40	09:40	Priorities for 2022 (Bryan)
16:50	09:50	Q&A
17:10	10:10	Annual meeting and board election (Lucy)
17:30	10:30	Close

#CRLIVE21

**Q&A**



# Annual meeting & board election

Lucy Ofiesh & Emily Cooke

# Overview of Crossref governance

- 501(c)6 organization, a trade association
- To be eligible for the Board, a Director must be an employee or officer of a member organization. Once a Director is elected, the member organization can appoint an alternate for such Director. Board seat belongs to the organization, not the individual.
- Board members serve 3-year terms and are eligible for reelection with no term limits
- Corporate officers (Chair and Treasurer) are elected by the board to serve one-year terms, for up to to three consecutive years
- All board members agree to a whistleblower policy and a conflicts of interest disclosure policy

# Overview of Crossref governance

The role of the board at Crossref is to provide strategic and financial oversight of the organization, as well as guidance to the Executive Director and the staff leadership team, with the key responsibilities being:

- Setting the strategic direction for the organization;
- Providing financial oversight; and
- Approving new policies and services.

# Annual meeting election

- Notice of Annual meeting sent September 20th, 2021
- Review of Nominating Procedure

# 2021 board nominations

## 2021 Nominating committee

- Melissa Harrison\*, eLife, Cambridge, UK (Chair)
- Liz Allen\*, F1000/Taylor & Francis, committee chair
- Andrew Joseph, Wits University Press, Johannesburg, South Africa
- Abel Packer\*, SciELO, São Paulo, Brazil
- Lisa Scott, New England Journal of Medicine, Boston, USA

\* indicates Crossref board member

# Nomination process

- Board composition review
- Public call for nominations
- 60 respondents
- Committee reviews and discussed candidates

Interested in next year? Stay tuned for the call for expressions of interest in April/May 2022

# 2021 Board slate

## Tier 1, small & mid-sized members

California Digital Library, University of California, Lisa Schiff

Center for Open Science, Nici Pfeiffer

Melanoma Research Alliance, Kristen Mueller

Morressier, Sebastian Rose

NISC, Mike Schramm

## Tier 2, large members

AIP Publishing (AIP), Penelope Lewis

American Psychological Association (APA), Jasper Simons

Association for Computing Machinery (ACM), Scott Delman

# 2021 Board election final results

## Tier 1, small & mid-sized members

California Digital Library, University of California, Lisa Schiff

Center for Open Science, Nici Pfeiffer

Melanoma Research Alliance, Kristen Mueller

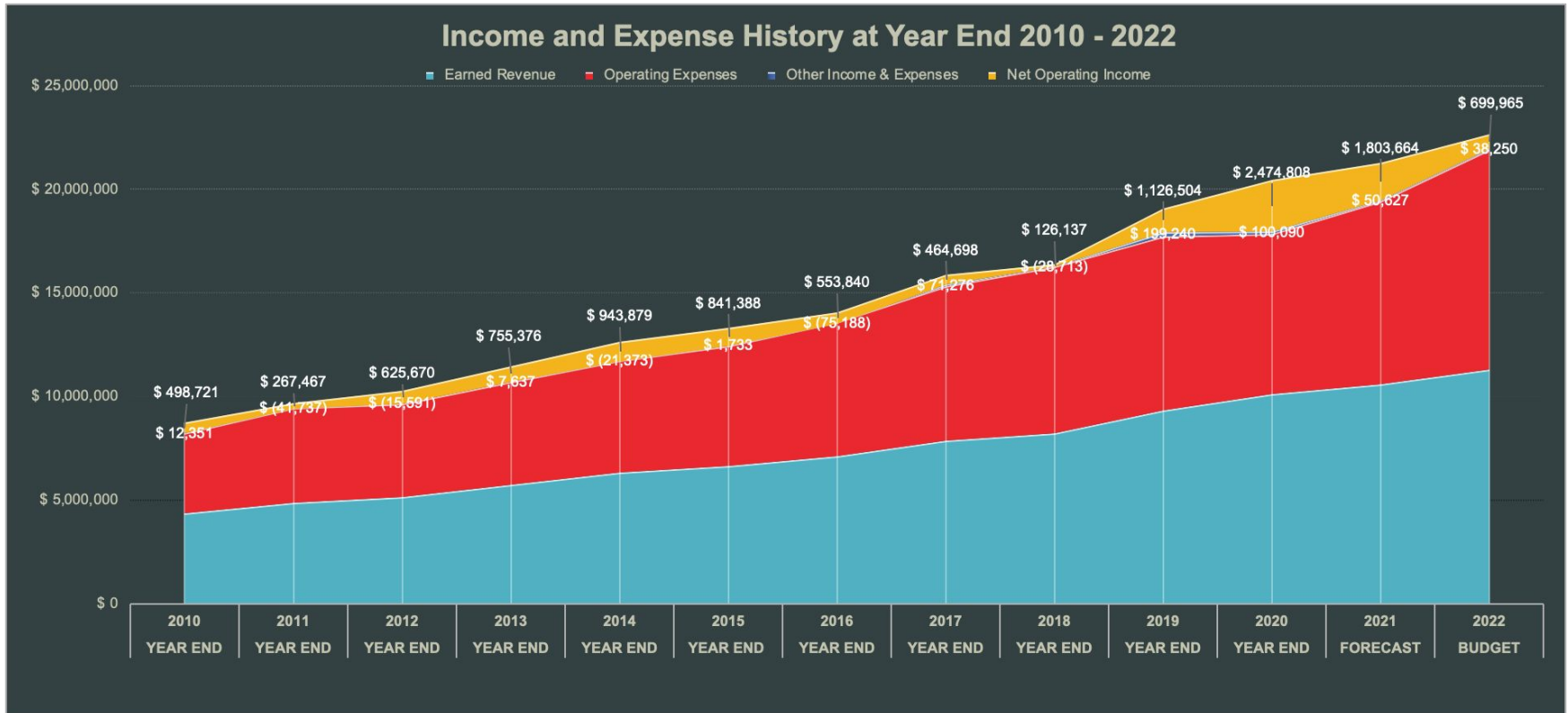
## Tier 2, large members

AIP Publishing (AIP), Penelope Lewis

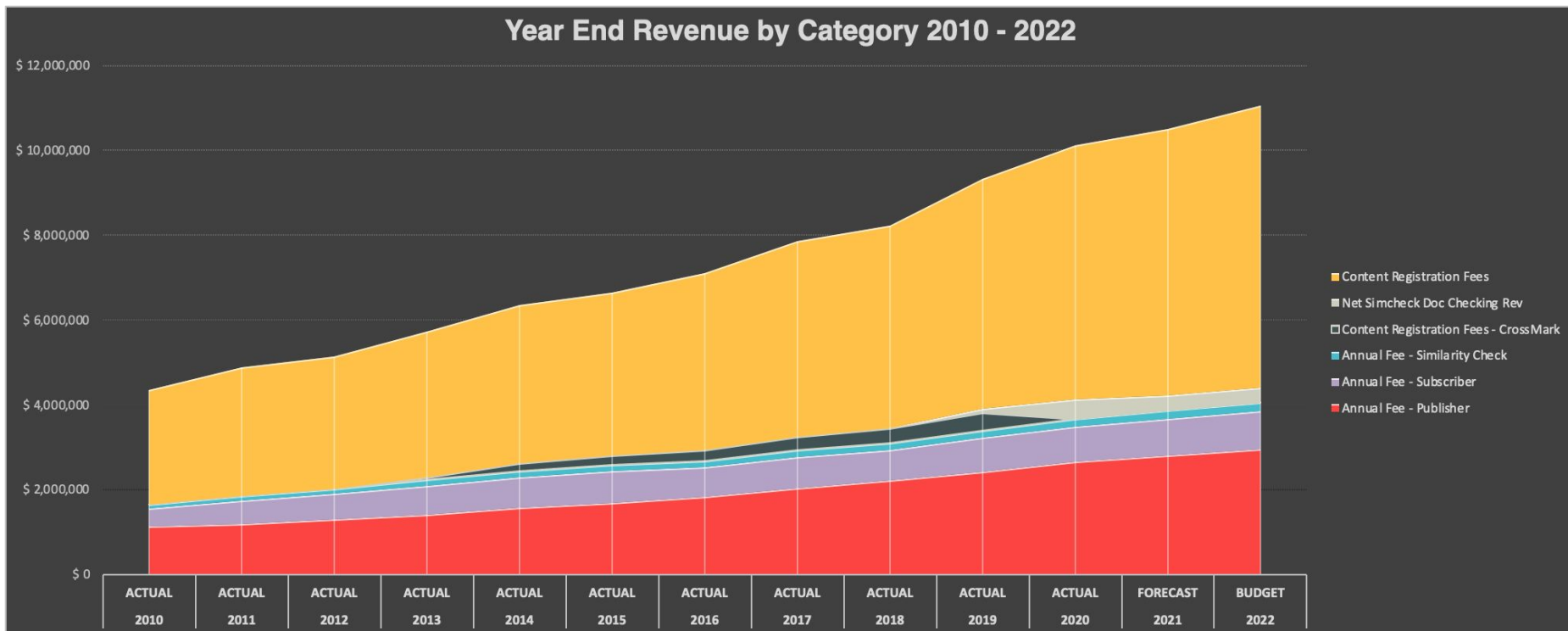
American Psychological Association (APA), Jasper Simons



# 10 years of financial performance

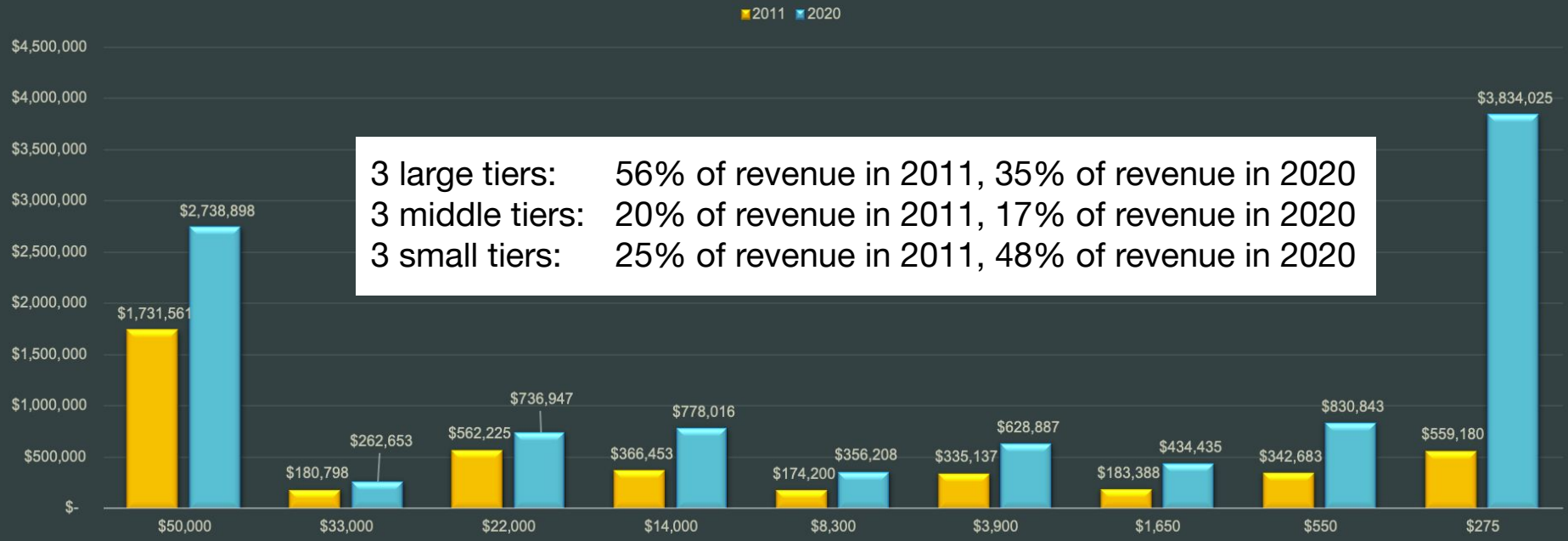


# Blend of revenue sources



# Shift in revenue from membership tiers

Revenue Growth by Membership Category 2011 and 2020



# 2022 draft budget

- 2022 budget themes:
  - Enabling research integrity
  - Improving the security of our technology
  - Scaling up to support membership growth
  - Investing in new initiatives
- Projected headline numbers
  - \$11.2 million revenue
  - \$10.6 million expenses
  - \$600,000 surplus (6%)

**Any other  
business?**

# Wrap-up

Ed Pentz



[crossref.org/people](https://crossref.org/people)  
[crossref.org/people/org-chart](https://crossref.org/people/org-chart)



## A tribute to our Kirsty



Crossref – 2020 December 16  
In Staff

Our colleague and friend, [Kirsty Meddings](#), passed away peacefully on 10th December at home with her family, after a sudden and aggressive cancer. She was a huge part of Crossref, our culture, and our lives for the last twelve years.

Kirsty Meddings is a name that almost everyone in scholarly publishing knows; she was part of a generation of Oxford women in publishing technology who have progressed through the industry, adapted to its changes, spotted new opportunities, and supported each other throughout. We hope this post will do justice to her memory in our profession.

### Kirsty's early career

After completing her degree in English and Spanish American Literature at Warwick University, Kirsty started her career in scholarly communications and publishing at Blackwell's Information Services. She was there for a year before joining CatchWord, an online journal start-up, in 1998, as Electronic Publisher and Account Manager and in 1999 was promoted to the new role of Library Relations Manager.

CatchWord was acquired by Ingenta and Kirsty moved into product management working on integrating the CatchWord and Ingenta platforms and launching IngentaConnect in 2004. Ingenta became Publishing Technology in 2005 and Kirsty was Product Development Manager working with engineering, business development, and users on developing online products and services. She was also involved in a range of community initiatives including COUNTER, KBART, and ICEDIS.

### Joining Crossref

[crossref.org/blog/a-tribute-to-our-kirsty](https://crossref.org/blog/a-tribute-to-our-kirsty)





**Evans Atoni**  
Technical Support  
Specialist



**Amanda Bartell**  
Head of Member  
Experience



**Geoffrey Bilder**  
Director of Technology &  
Research



**Amy Bosworth**  
Accounts Receivable  
Manager



**Sara Bowman**  
Product Manager



**Rosa Clark**  
Communications and  
Events Manager



**Susan Collins**  
Community Engagement  
Manager



**Laura Cuniff**  
Billing Support Specialist



**Esha Datta**  
Principal R&D Developer



**Paul Davis**  
Technical Support  
Specialist



**Carlos del Ojo Elías**  
Sr. Software Developer



**Vanessa Fairhurst**  
Community Engagement  
Manager



**Isaac Farley**  
Support Manager



**Patricia Feeney**  
Head of Metadata



**Mike Gill**  
Sr. Software Developer



**Jason Hanna**  
Software Developer



**Ginny Hendricks**  
Director of Member &  
Community Outreach



**Sally Jennings**  
Member Support  
Specialist



**Jennifer Kemp**  
Head of Partnerships



**Rachael Lamme**  
Head of Research and  
Development



**Kathleen Luscheck**  
Member Support  
Specialist



**Rakesh Masih**  
User Experience Designer



**Ryan McFall**  
Financial Controller



**Fabienne Michaud**  
Product Manager



**Shayna Mullen**  
Accounting Clerk



**Lucy Ofiesh**  
Director of Finance &  
Operations



**Panos Pandis**  
Sr. Software Developer



**Ed Pentz**  
Executive Director



**Tim Pickard**  
Systems Support Analyst



**Patrick Polischuk**  
API Product Manager



**Martyn Rittman**  
Product Manager



**Lindsay Russell**  
HR Manager



**Joel Schuweiler**  
SR. SRE Software Engineer



**Shayn Smulyan**  
Technical Support  
Specialist



**Jon Stark**  
Software Developer



**Maria Sullivan**  
Supervising Accountant



**Dominika Tkaczyk**  
Principal R&D Developer



**Anna Tolwinski**  
Member Experience  
Manager



**Patrick Vale**  
Sr. Front End Developer



**Bryan Vickery**  
Director of Product



**Joe Wass**  
Head of Software  
Development



**Mike Yalter**  
Software Developer




The background of the image is a vibrant, abstract collage of geometric shapes and large, stylized letters in various colors including red, orange, yellow, green, and blue. The letters are partially cut off by the edges of the frame, creating a dynamic and modern feel. In the center, there is a black rectangular box containing the event information.




# OPEN PUBLISHING FEST

NOV. 8-19, 2021

Propose an event  
[openpublishingfest.org](https://openpublishingfest.org)

# Community forum





all categories ▾

all tags ▾

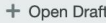

Categories

New (2)

Top

Latest

Unread (25)



Category

Topics

Latest

**Welcome to the Crossref Community Forum!**

9

Welcome to the Crossref Community!  
Feedback on the Crossref Community platform

**New Crossref members**

24

New Crossref members! Got something you'd like to discuss with other new members, our Ambassadors or our team? Post here and someone will get back to you soon.  
Billing Basics 1 new

**Content Registration**

75

Content registration allows Crossref members to register and update metadata via machine or human interfaces.  
Metadata Manager OJS Users 1 unread Web Deposit Form XML Deposit

**Crossref Services**

31

We offer a wide array of services to ensure that scholarly research metadata is registered, linked, and distributed.  
Reference Linking Cited-by Crossmark Similarity Check 1 unread Event Data Funder Registry ORCID Integrations

**Metadata Retrieval**


13

The collective power of our members' metadata is available to use through a variety of tools and APIs—allowing anyone to search and reuse the metadata in sophisticated ways.  
Interfaces for People Interfaces for Machines 1 unread


**Reports**

10


Our reports are tools to help you evaluate and improve your

 Crossref/DOAJ MoU  
News and current events doaj


2  
2d

 About resolution reports and their arrival in your inbox  
Reports resolution-reports


0  
2d

 Parallel titles for a given ISSN  
Content Registration multilingual, issn, journal, title\_update, 0 votes


4  
3d

 Submitting via curl or java to test - working examples? 1  
Technical Support 🗯️ pdavis


6  
4d

 Sponsoring Member fees  
Billing Basics


0  
4d

 Provide Linking-ISSNs based on publisher ISSN  
Metadata Retrieval issn

1  
5d

 Pending publication withdrawn after being assigned a DOI  
Content Registration 0 votes

3  
5d

 Crossref LIVE: The Benefits of Open Infrastructure (APAC time zones) 2  
Community Calendar crossref-events, posi

1  
6d

The logo features the word "Crossref" in a small, sans-serif font above the word "LIVE" in a large, bold, sans-serif font, all enclosed within a white rounded rectangular border. To the right of this border is the number "21" in a large, bold, sans-serif font. The background of the top half of the slide is a photograph of a paved road with a dashed white line down the center, receding into the distance under a hazy sky.

# Crossref LIVE 21

Blog [crossref.org/blog](https://crossref.org/blog)

News [crossref.org/subscribe-newsletter](https://crossref.org/subscribe-newsletter)

Community forum [community.crossref.org](https://community.crossref.org)

Webinars [crossref.org/events](https://crossref.org/events)

Committees & Groups [crossref.org/working-groups](https://crossref.org/working-groups)

[support@crossref.org](mailto:support@crossref.org) or [feedback@crossref.org](mailto:feedback@crossref.org)



# Credits

- Call Me! by Ariel Kotzer
- Gymnastic by Samy Menai
- Snare Drum by Angela Gasparetti
- Charts by Anna Tolwinska, Ryan McFall, and Ginny Hendricks
- Research Nexus by Ginny Hendricks and Reeves Branding