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# PIDs 101

永續標識符入門指南

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# 永續標識符

# 永續

# 標識符

由權責機構維護效用

全球通用獨一無  
二的字串

# 研究社群中人、事、物的永續標識符

研究人員的永續標識符如  
ISNIs 和 ORCID iDs



研究機構的永續標識符如GRID  
and ROR



研究投入(如獎助、評閱、研究計畫、預印本)和研究成果的永續標識符如 DOIs, IGSNs, RAiDs等等



出處

人?事?物?

元數據

內容描述

什麼?誰?

永續標識符是數位也是實體資源永恆的指涉

誰來保障?能有多久?

哪裡可以找到這筆資源? 機器該去哪使用這筆資源?

政策和承諾

機器可讀取

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# 永續標識符的用途和價值

## 永續標識符消除歧義

ORCID ID	名字	姓氏
0000-0001-8954-0713	Xiao-Li	Wang
0000-0001-7263-6815	Xiao Li	Wang
0000-0003-4909-2412	Xiao-Li	Wang
0000-0003-4475-2952	Xiao Li	Wang
0000-0003-2553-2516	Xiao-li	Wang

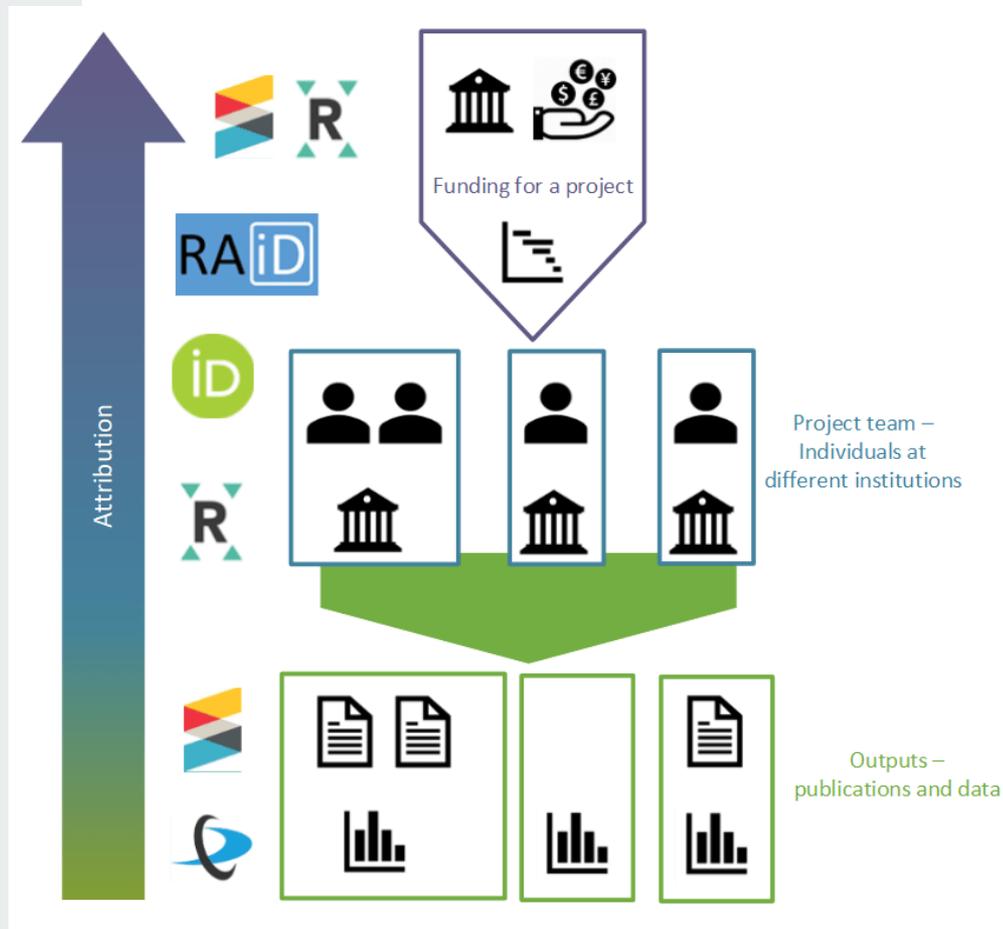
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# 永續標識符增值連結

## References

- [Abd Ellah and Abouelmagd, 2016](#) N.H. Abd Ellah, S.A. Abouelmagd  
**Surface functionalization of polymeric nanoparticles for tumor drug delivery: approaches and challenges**  
Expert Opin. Drug Deliv., 1–14 (2016),  
[10.1080/17425247.2016.1213238](https://doi.org/10.1080/17425247.2016.1213238)  
[Google Scholar](#)
- [Abouelmagd et al., 2016](#) S.A. Abouelmagd, F. Meng, B.-K. Kim, H. Hyun, Y. Yeo  
**Tannic acid-mediated surface functionalization of polymeric nanoparticles**  
ACS Biomater. Sci. Eng. (2016), p. 6b00497,  
[10.1021/acsbiomaterials.6b004](https://doi.org/10.1021/acsbiomaterials.6b004)  
[Google Scholar](#)
- [Ahmed et al., 2016](#) S. Ahmed, S. Annu, S.S. Yudha  
**Biosynthesis of gold nanoparticles: a green approach**  
J. Photochem. Photobiol. B: Biol., 161 (2016), pp. 141-153,  
[10.1016/j.jphotobiol.2016.04.034](https://doi.org/10.1016/j.jphotobiol.2016.04.034)  
[Article](#)  [Download PDF](#) [View Record in Scopus](#)  
[Google Scholar](#)
- [Akhavan et al., 2011](#) O. Akhavan, R. Azimirad, S. Safa, E. Hasani  
S. Safa, (2011) *kinetic study of the synthesis of gold nanoparticles*

# 永續標識符促進訊息 互通



# 永續標識符為數據資料FAIR的基礎

可搜尋  
可取得  
可交互運用  
可重複使用

Data should be <b>Findable</b>	F1. (meta)data are assigned a globally unique and persistent identifier (DOI) F2. data are described with rich metadata F3. metadata clearly and explicitly include the identifier of the data it describes F4. (meta)data are registered or indexed in a searchable resource
Data should be <b>Accessible</b>	A1. (meta)data are retrievable by their identifier using a standardized communications protocol A1.1 the protocol is open, free, and universally implementable A1.2 the protocol allows for an authentication and authorization procedure, where necessary A2. metadata are accessible, even when the data are no longer available
Data should be <b>Interoperable</b>	I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation. I2. (meta)data use vocabularies that follow FAIR principles I3. (meta)data include qualified references to other (meta)data
Data should be <b>Reusable</b>	R1. meta(data) are richly described with a plurality of accurate and relevant attributes R1.1. (meta)data are released with a clear and accessible data usage license R1.2. (meta)data are associated with detailed provenance R1.3. (meta)data meet domain-relevant community standards

# 永續標識符奠定可信 的研究基礎建設

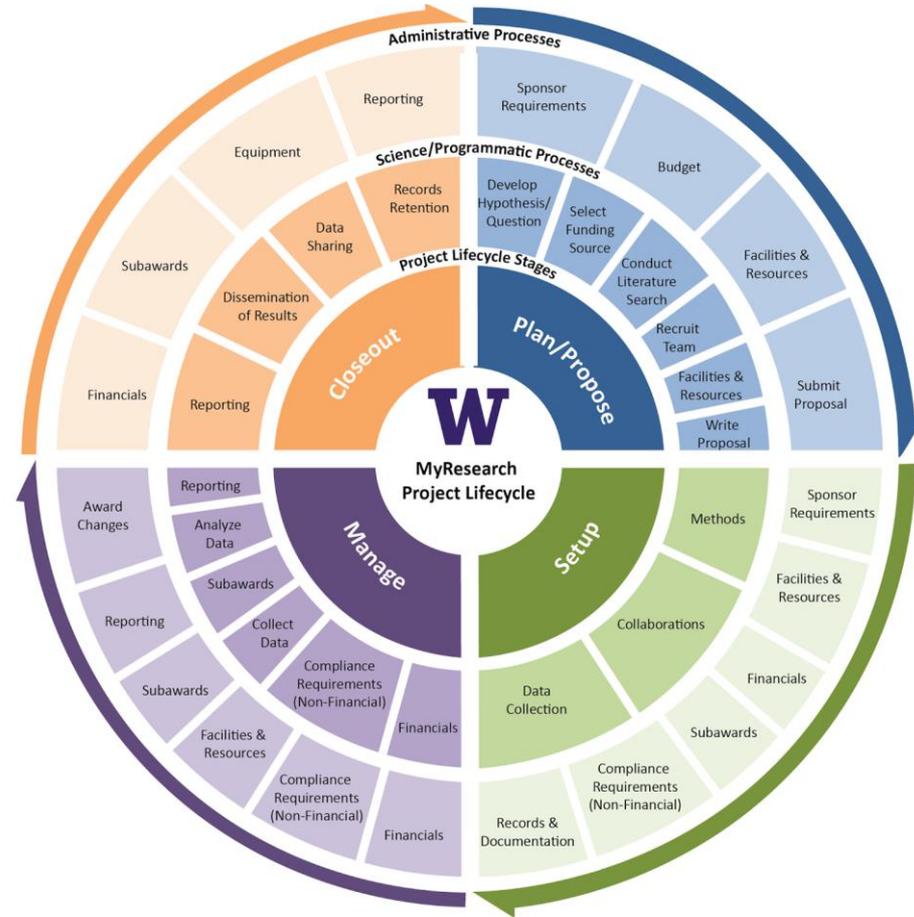
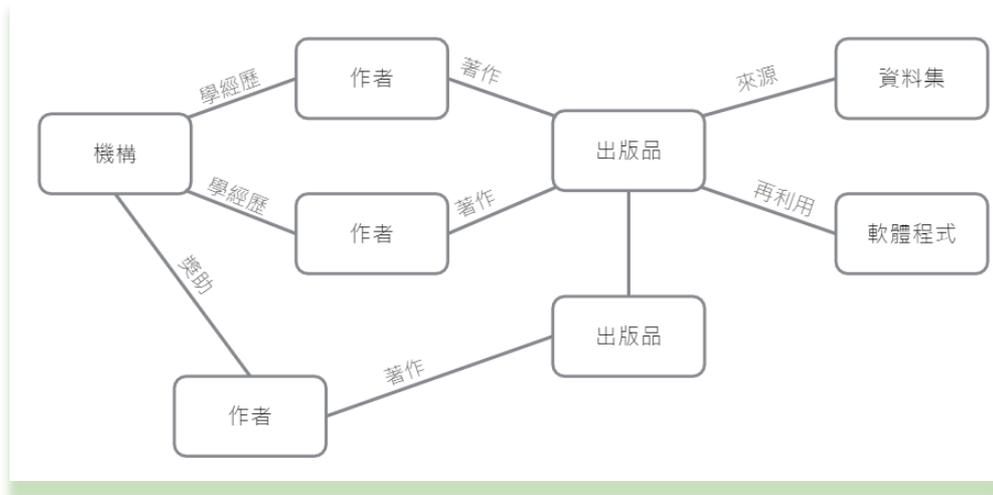
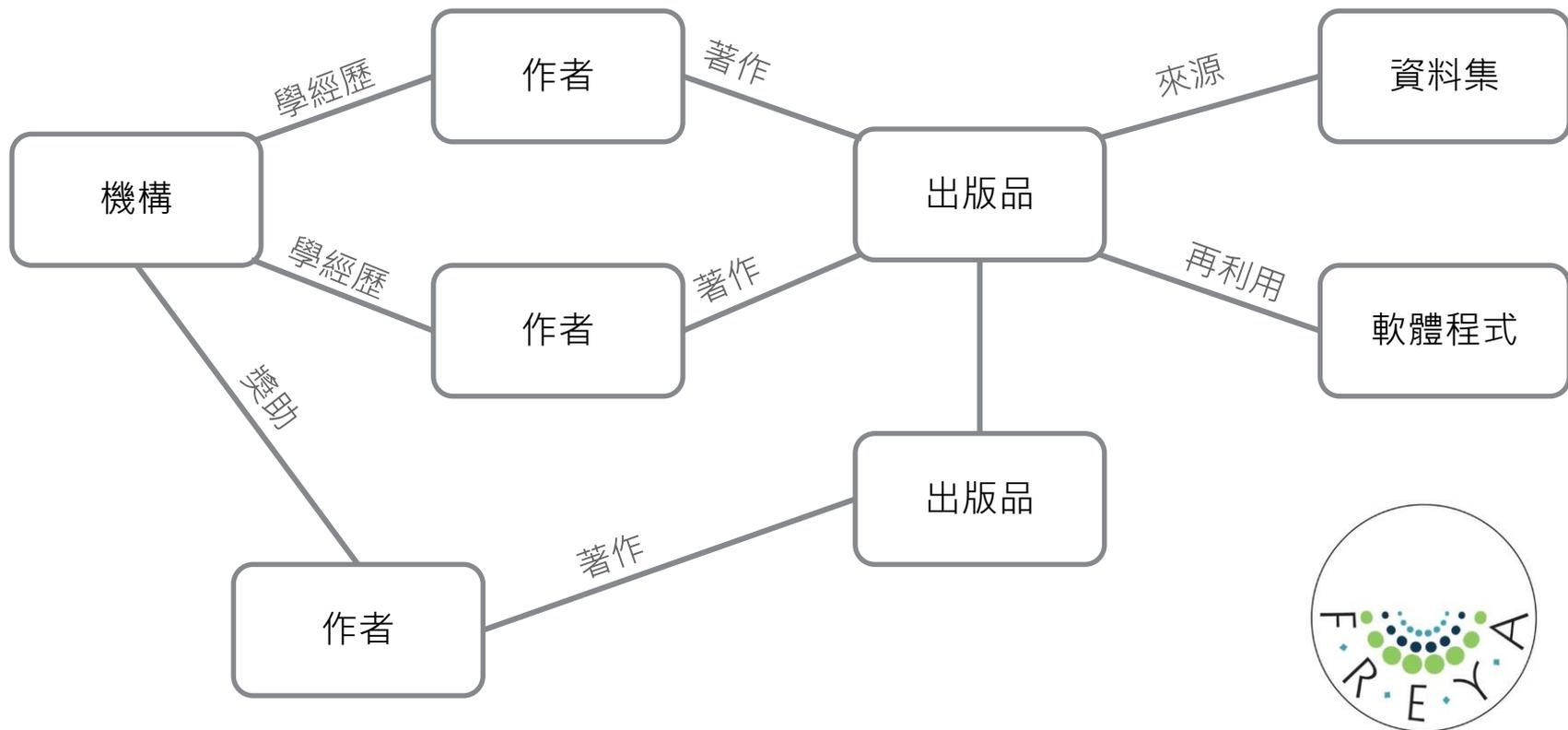


Image: University of Washington Office of Research

## 除了上述，更多的益處

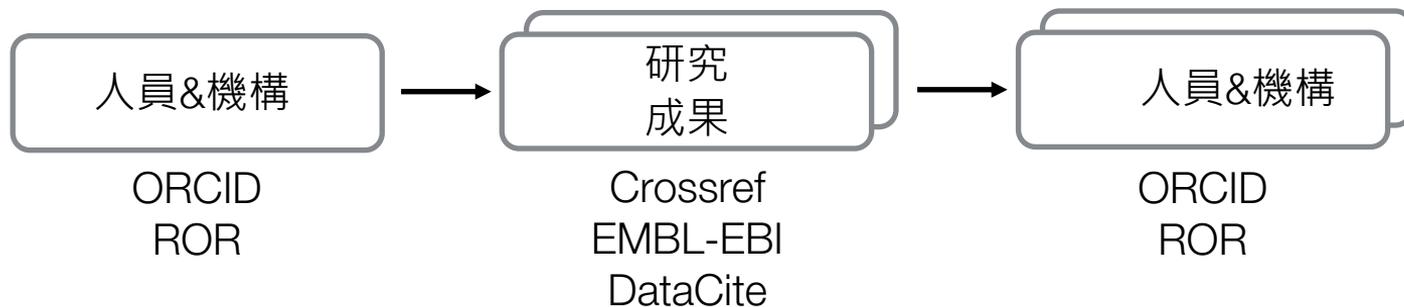
永續標識符真正的價值來自  
連結研究生態圈的每一環





## 永續標識符交織成關聯圖表

連結研究人員跟所有共同著作的學者



連結受歐盟資助的資料集和引用這些資料集的期刊文章



圖表 - 建構關聯的問題 解答關聯的問題

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# 永續標識符一覽



Connecting Research  
and Researchers

ORCID 是一個由全球會員組織社群提供支持的非營利組織，會員包括研究機構、出版商、投資商、專業協會、服務提供商和研究生態系統中的其他利害關係人。ORCID 的使命為不論學科領域、國界，時間，研究人員和貢獻者可有獨一無二的標識符，而且以清楚通透的方式連結這些人和對應的研究成果與專業經歷

ORCID 提供:

- ORCID 記錄相關聯的唯一身份編碼 ("ORCID iD") 包含研究成果、專業經歷、獎助成就、同儕評閱和其他歷程記錄
- API (應用程式編程介面)，允許平台系統和應用程式連接到 ORCID 註冊系統，在用戶允許的情況下訪問 ORCID 記錄，協助研究貢獻者連結專業經歷和研究成果。讓研究人員、對應貢獻和附屬機構間建立透明和值得信賴的樞紐，以參與研究、學術和創新活動。



## Registering DataCite DOIs makes your research outputs discoverable.

- A DOI makes your research outputs uniquely identifiable.
- Metadata that you register with DataCite is in a central location, harvestable by anyone.
- Metadata for our Members' research outputs appear in other search engines.

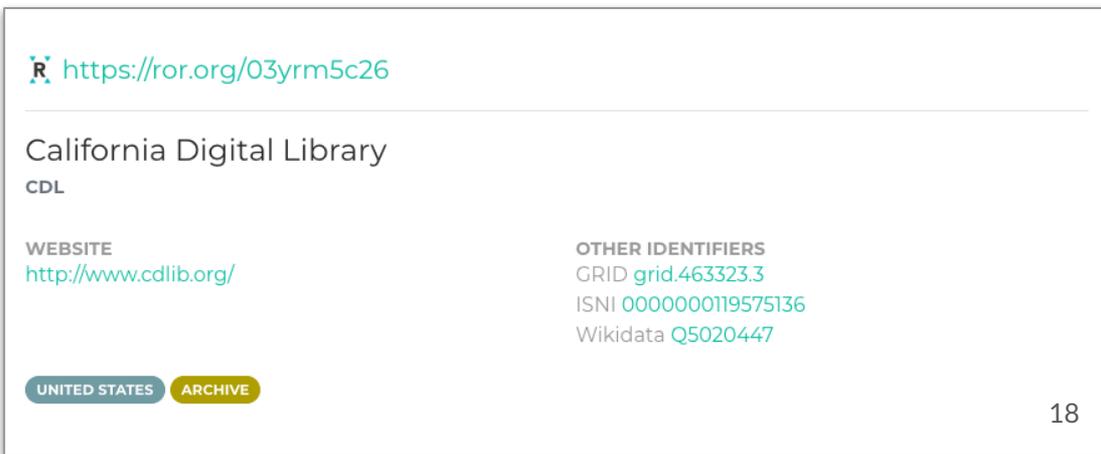
## DataCite services make it easy to follow best practices.

- We make research data management easy: you register your first DOI in less than 1 minute.
- DataCite DOIs and metadata help you make your research FAIR.
- We connect you to the DataCite Member community, which is full of passionate people who share experience and continue to support best practice.
- Our metadata schema is extensive and has been adopted by other PID service providers globally.

## DataCite services help you track and report on your research.

- A DOI enables easy tracking of your research outputs through simple user interfaces.
- DataCite services make institutional reporting simple.
- DataCite services support data citation and usage analytics

ROR is a **community-led project** to develop an **open**, sustainable, usable, and unique identifier for every **research organization** in the world.



 <https://ror.org/03yrm5c26>

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California Digital Library  
CDL

**WEBSITE**  
<http://www.cdlib.org/>

**OTHER IDENTIFIERS**  
GRID [grid.463323.3](#)  
ISNI [0000000119575136](#)  
Wikidata [Q5020447](#)

**UNITED STATES** **ARCHIVE**



- Open foundational scholarly infrastructure: [openscholarlyinfrastructure.org](https://openscholarlyinfrastructure.org).
- SIMA: storage; identifiers; metadata; assertions (relationships).
- Metadata and services make research outputs easy to find, cite, link, assess, and reuse.
- Crossref DOIs are citation identifiers: [grants](#), [preprints](#), [articles](#), [chapters](#), [proceedings](#), [standards](#), [reports](#), [protocols](#), [dissertations](#), [reviews](#), [comments](#) (conferences, video, blogs soon).
- Open data and APIs to retrieve metadata from >120 million records.



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成為永續標識符達人!

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## 第一步: 取得並運用永續標識符

立即申請註冊ORCID iD → <https://orcid.org>

賦予軟體和資料數據集DOI (以DataCite為例) → <https://datacite.org>,  
<https://guides.github.com/activities/citable-code/>

賦予機構典藏文檔DOI → <https://repositoryfinder.datacite.org> (以DataCite為例)

## 第二步: 關聯永續標識符

互相串聯各種不同的永續標識符 (人+事+物)

以Zenodo平台為例:

**Related/alternate identifiers** recommended 

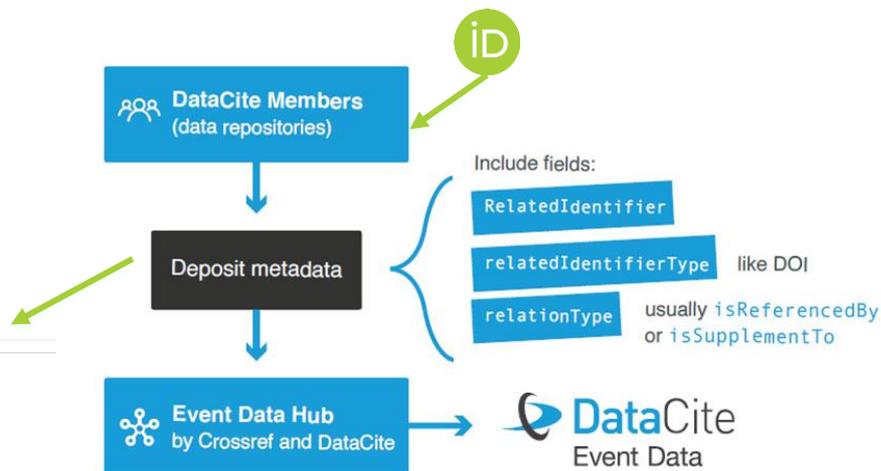
Specify identifiers of related publications and datasets. Supported identifiers include: DOI, Handle, ARK, PURL, ISSN, ISBN, PubMed ID, PubMed Central ID, ADS Bibliographic Code, arXiv, Life Science Identifiers (LSID), EAN-13, ISTC, URNs and URLs.

 **Related identifiers**   

[+ Add another related identifier](#)

**Contributors** optional 

## 第三步: 與社群分享永續標示符(以DataCite為例)



ORCID: Infrastructure to Connect People, Places and Things

ORCID

2020 | other

DOI: 10.23640/07243.12469067

Source: DataCite

★ Preferred source

Interested in using this information? Find out more at: <https://support.datacite.org/docs/eventdata-guide>

# 最後：加入永續標識符論壇！

the **PID** Forum

[Sign Up](#) [Log In](#)

all categories ▾ **Categories** Latest Top

Category	Topics	Latest
<b>General</b> Topics that don't need a category, or don't fit into any other existing category.	22	 <b>Welcome to the PID Forum!</b>
<b>PID Best Practices</b> A category to bring together information (papers, guidelines etc) and ideas on PID best practices for different communities and disciplines.	16	 <b>Where can I find an overview of all active PIDs?</b> <a href="#">Questions</a>
<b>PID News &amp; Blogs</b> Share interesting PID news & blogs here	35	 <b>Share your PID slides!</b> <a href="#">PIDapalooza</a>
<b>PID Graph</b> Persistent identifiers and associated metadata describe resources such as datasets, software, publications, people, research organizations, funders, and grants. An important part of this metadata is the description of connections between these resources. Together these resources and their connection...	32	 <b>Survey on PIDs in academic assessment systems</b>
<b>PID Services</b> Post anything related to PID Services here.	4	 <b>Is there a PID that is designed for or robustly supports metadata for music scores/manuscripts?</b> <a href="#">Questions</a>
<b>PID-related events</b>	40	 <b>Organizational Identifier Adoption in DataCite Metadata</b> <a href="#">PID News &amp; Blogs</a> <a href="#">datacite</a> , <a href="#">ror</a>

<https://pidforum.org>

- 分享最佳實踐
- 了解最新活動
- 提問
- 交流

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# 問題與討論