Research Collection Library

SMU Libraries

12-2021

Growing and sustaining an institutional repository: An example from Singapore Management University

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Citation

新加坡管理大学机构知识库的发展与经验分享

Growing and sustaining an institutional repository:
An example from Singapore Management University

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Singapore Management University Libraries

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结论

Singapore Management University 新加坡管理大学

- Established in 2000 with a city campus

- 创立于2000年，位于新加坡市中心

- Aim to produce relevant and high-impact, multi-disciplinary research that addresses issues in Asia

- 致力于发表有相关性和高影响力的多学科研究，解决亚洲问题

- Focus on bringing an interactive, participative and technologically enabled learning experience for undergraduates

- 专注于为本科生带来互动性，参与感，和高科技的学习体验

- Train postgraduates to provide research talent for academia and industry

- 培养研究生，为学术界和工业界提供研究人才

Our Faculty

388 full-time faculty 全职教员

Our Students

9,580 full-time undergraduates 全日制本科生

3,086 full-time & part-time postgraduates 全日制和兼读制研究生

As of September 2021

SMU Schools 新大的六所学院

School of Accountancy 会计学院

Lee Kong Chian School of Business 李光前商学院

School of Economics 经济学院

School of Computing and Information Systems 计算与信息系统学院

Yong Pung How School of Law 杨邦孝法学院

School of Social Sciences 社会科学学院

Night view of SMU campus

Quick facts: SMU Libraries
图书馆概览

Over 550,000 books (Over 467,000 e-books)

Access to 80,000+ e-journals

170 electronic databases

More than 5 million downloads from institutional repository
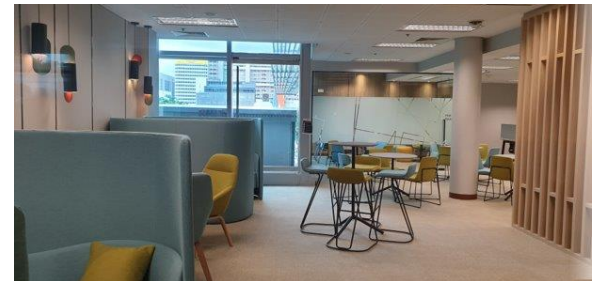
38 staff including 23 professional librarians

图书55万册（包括46万册电子书）

提供80万册电子期刊

170个电子数据库

机构数据库达5百万次下载

共38名员工，包括23名专业图书馆员

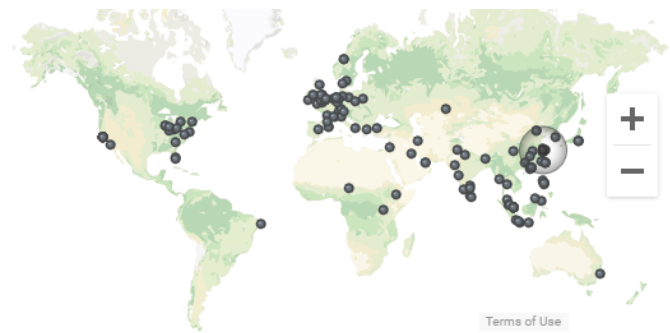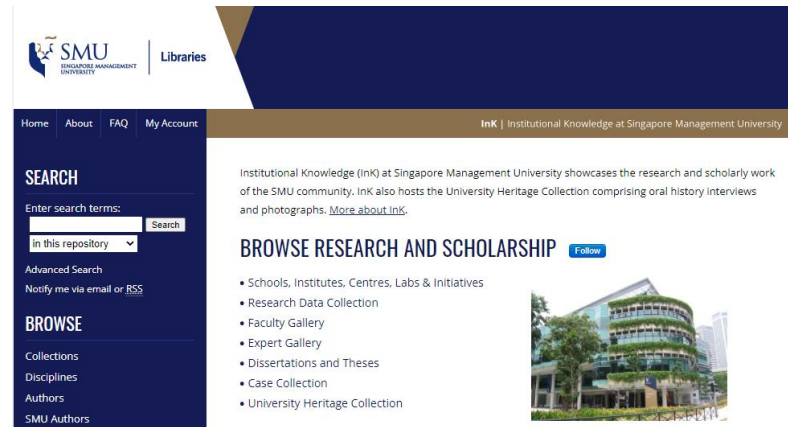# SMU Libraries 新大图书馆

- Li Ka Shing Library 李嘉诚图书馆

- Kwa Geok Choo Law Library 柯玉芝法律图书馆

Institutional Repository of SMU 新大机构知识库

- Named Institutional Knowledge @ Singapore Management University (in short InK)

- 机构知识库简称InK

- Launched in 2010 January

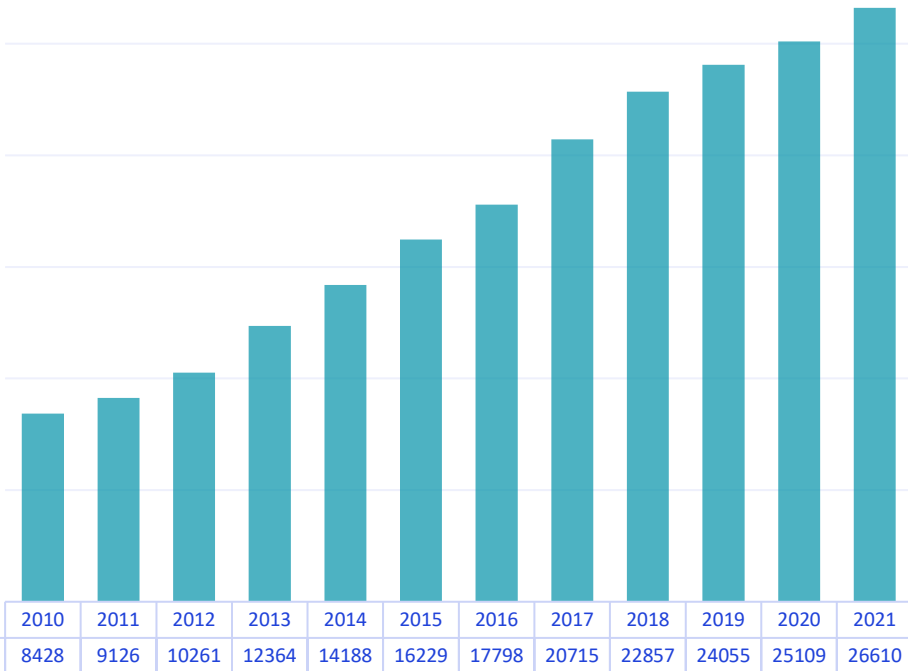- 2010年1月开始运行

- URL: https://ink.library.smu.edu.sg

Objectives of InK 目标

- To create visibility and raise the profile of SMU research

- 提高新大科研的知名度

- To provide organisation of the records of SMU research

- 系统化组织新大的科研成果

- To provide access to the full text where possible of SMU research

- 尽可能提供新大研究的全文访问

- Started in 2010 with 8000 records and 600 full text
  2010年启动时，包含8000条元数据和600条全文

Growth of InK records and full text
InK元数据和全文数据量的增长

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
8428	9126	10261	12364	14188	16229	17798	20715	22857	24055	25109	26610

Number of records 2010-2021

元数据量2010-2021

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
600	900	1467	2775	3656	4417	5373	7695	9661	10657	12574	15089
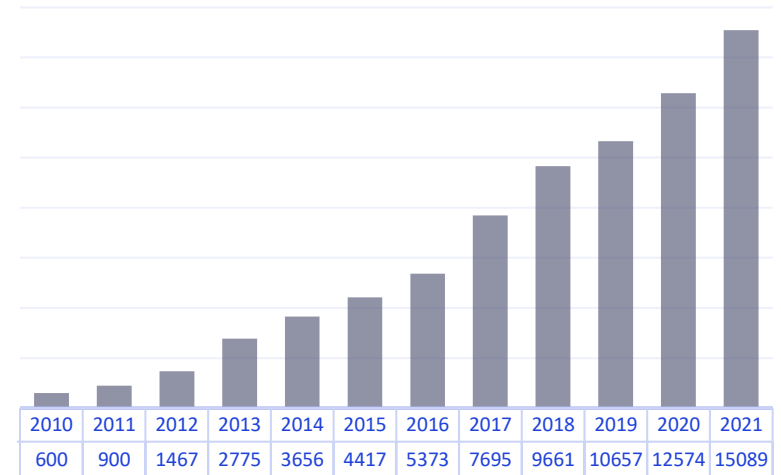
Number of full text 2010-2021

全文数据量2020-2021

Growth in InK downloads
InK下载量的增长

Platform for InK 系统平台
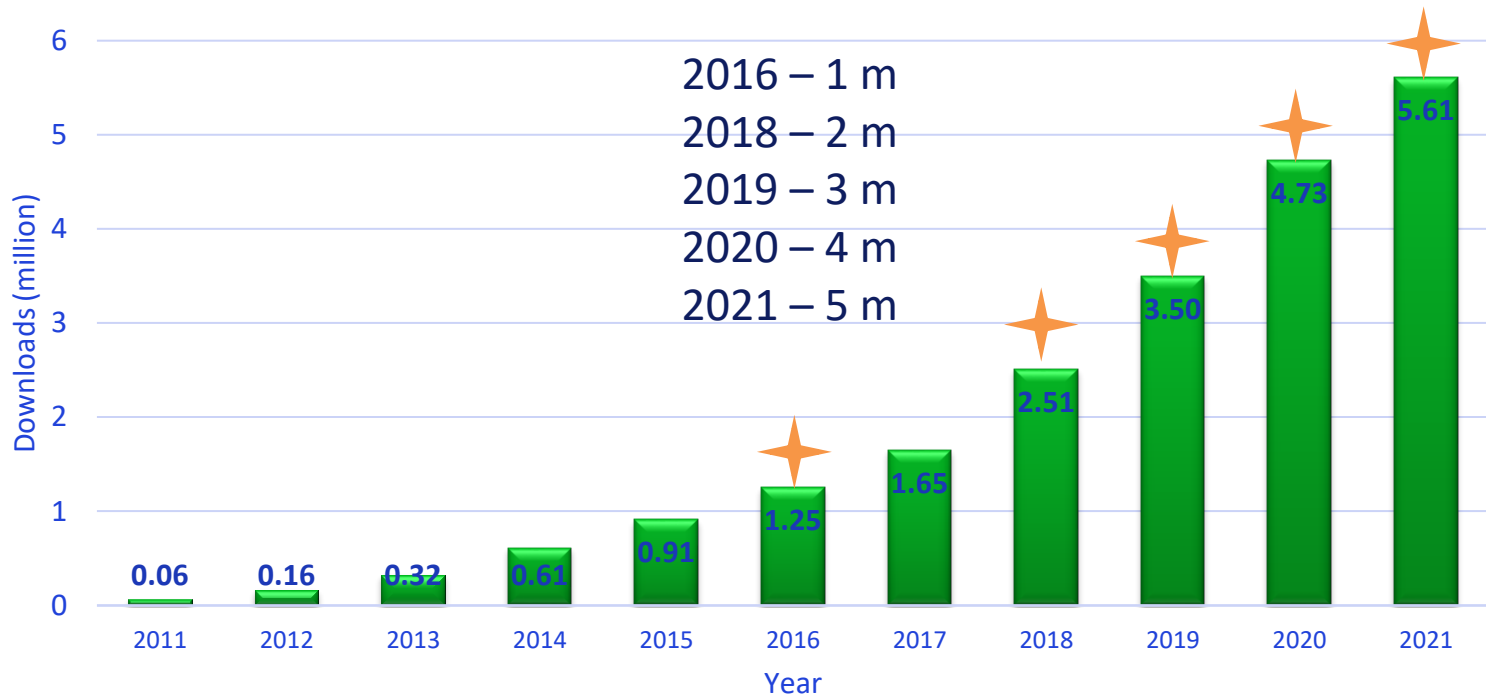
Digital Commons (BePress / Elsevier 爱思唯尔)

- ## Advantages 优势

  - Hosted solution
    托管型平台

  - Support from consultants
    平台顾问提供技术支持

  - Storage space is sufficient
    足够的存储空间

  - Dashboards for admins & authors with metrics & charts
    图书馆员 & 作者的个人数据指标页面

  - Library staff can focus on uploading content
    图书馆员可以专注发展内容

  - Good discoverability by search engines
    良好的搜索引擎可见度

- ## Disadvantages 不足

  - Take the system as it is
    需原样使用系统，无法定制功能

  - Make requests for enhancements but no guarantee it will happen
    可向平台方提出需求，但无法保证实施

  - No API to create new records and to amend existing records
    没有可以创建/修改记录的开放性API

Content harvesting for InK 知识库内容来源

- Faculty incentivized to add publication records in IRIS for appraisal
  教职员工在IRIS中添加学术出版记录以供评估（注: IRIS是新大的*当前研究信息系统/ CRIS*）

- Workflow in place to export appropriate records from IRIS to InK
  系统间有从IRIS到 InK的数据导出流程

- Do not expect faculty to create records in InK
  教职员工无需在InK中再次添加记录

Library staff validate records and export to InK
图书馆员工验证记录并导出到 InK

Faculty

Scopus

Web of
Science

IRIS

InK

12

Policies supporting open access
开放获取相关政策

Aug. 2010

Intellectual Property Policy (effective Aug 2010)

知识产权政策（2010 年 8 月生效）

Jan. 2020

Research Data Management Policy (effective Jan 2020)

研究数据管理政策（2020 年 1 月生效）

Open Access Policy (effective Oct 2013)

开放获取政策（2013 年 10 月生效）

Oct. 2013

Requirement of research funders
科研经费的相关规定

"Institutions shall ensure that all publications arising from publicly funded Research are made openly available no later than twelve (12) months after the official date of publication" (2016)

"由公共资助的研究产生的出版物，机构应负责确保出版日期的十二个月内提供开放获取"（2016 年）

- Checked if these publications were in InK
  图书馆团队检查这些文章是否已经在 InK公开发表

- Asked for the full text from faculty who did not upload
  若尚未发表，我们会联系教员索取全文

"Provide a weblink to the deposited publication or author-accepted manuscripts in a publicly accessible repository" (2020)

"作者需提供存储在在公开访问的存储库中的，开放文章的网络链接"（2020 年）

- Strong driver and incentive for faculty who have grants
  拿到科研经费的教职员工有更强动力

Challenges
挑战

- Getting more full text

- 增加全文数据量

- Faculty lacked awareness of open access

- 教员缺乏开放获取意识

- Faculty not used to upload the full text

- 教员不习惯于上传全文

- Faculty not sure which version they can share in IR

- 教员不确定可以开放分享的文章版本

Promotion of InK
InK的推广与宣传

Research librarians (RLs)

研究图书馆员 （学科馆员）

- interaction with faculty – new & existing
  与新老教员的联系和互动

- RL annual report to schools – add section on school collection downloads and papers which had high downloads
  提供给学院的年度报告中，提供学院下载量数据和高下载量论文排名

- RL updates at school meeting
  学科馆员在学院会议上提供关于InK的更新报告

Research Services team

馆内科研服务团队

- add at least one full text for every faculty – monthly email from InK
  为每位教员至少添加一篇全文（InK的月度数据报告）

- supply data on downloads to RL for their info and reports
  为学科馆员提供下载数据

- supply data to ORTT / centres / institutes
  提供数据给其他部门

- emailers to highlight selected papers and celebrate milestones, e.g. COVID-19 publication, female faculty publications
  Email宣传特选论文，如COVID-19相关，女性教员发表文章

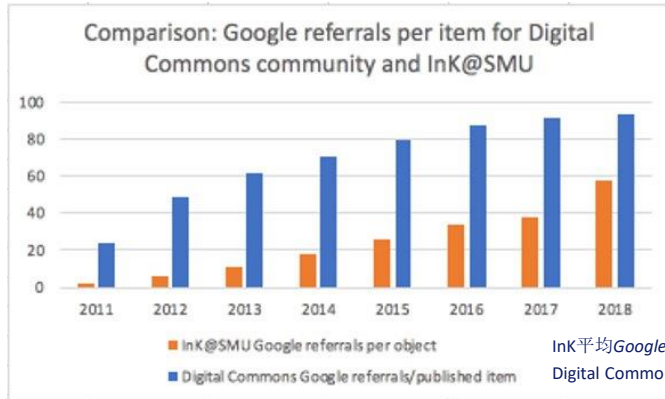# Strategies to increase full text in InK
增加全文数量的策略

- Faculty upload full text to IRIS
  通过IRIS添加

- Search for full text on the web, e.g. SSRN, repositories, author pages, ResearchGate
  通过网络搜索，如SSRN，ResearchGate，知识库，作者个人主页等

- Check publisher policies whether the published version is allowed in IR
  检查出版商政策是否允许

- Engage department / centre to send us the full text
  通过学院/研究中心联系获取全文

- Ask faculty directly for full text
  直接询问教员

- Ask new faculty for full text (through the RLs)
  通过学科馆员向新教员寻求全文

Search discoverability of InK
InK搜索引擎可见性

InK平均*Google*推荐数
Digital Commons全平台平均*Google*推荐数
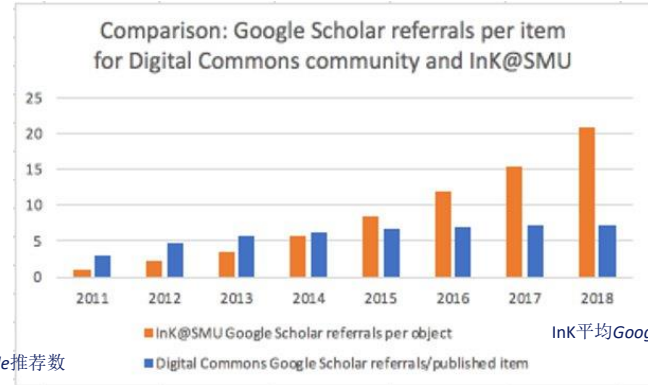
InK平均*Google*学术推荐数

Digital Commons全平台平均*Google*学术推荐数

Services for faculty
教员服务

- Automatic uploading of record and full text into IR pulled from CRIS

- CRIS的元数据和全文数据由图书馆负责上传到机构数据库

- Monthly email about downloads

- 每月作者会收到下载量报告

- Author dashboard for downloads and metrics from PlumX

- 作者有个人专属的数据指标页面，包括PlumX数据

Feedback from faculty
来自教员的反馈

- One faculty member received two collaboration requests from commercial companies who reached out after reading her work in InK

- 一位教员收到过两份来自商业公司的合作请求——公司人员在阅读InK上她的文章后主动联系了她。

- Other faculty members have seen citations of their articles rise after sharing the full text versions in InK

- 一些教员提到分享全文后文章引用次数有所增加

- Some faculty received invitations to speak at external events

- 一些教员收到在外部活动中发言的邀请

Engagement & Promotion: From SMU President

"[Our repository] is a very important and integral part of having our research made available to the world."
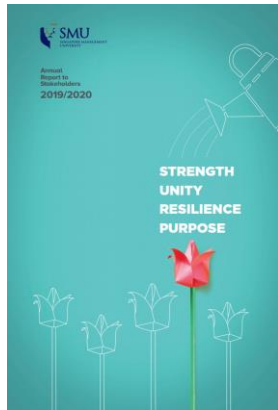
"[我们的机构数据库] 是我们向全世界分享研究成果的一个非常重要且不可或缺的部分。"

— Professor Lily Kong
President & Lee Kong Chian Chair Professor of Social Sciences

校长 & Lee Kong Chian 社会科学讲座教授

InK in SMU annual reports
InK在SMU年报中的呈现

- 2019/20

SMU Institutional repository, InK

The SMU institutional repository, InK is an integral part of making SMU research available and open access to the world since 2011. SMU research publications were downloaded a total of 4 million times from InK. Our publications are having an impact, mainly with the education sector and the commercial sector which accounted for 30% of the downloads. InK saw strong growth in the number of full text papers authored by SMU faculty, staff and students, from just 600 in 2011 to over 13,000 in 2020. A study conducted with over 1,000 journal articles in InK showed that high downloads of papers in InK correlated with higher citations and papers with open access availability in InK tended to have higher citations than those without.

- 2020/21

Annual Report to Stakeholders 2020/2021

SMU Institutional Repository, InK

SMU is leading the world in the percentage of open access papers for business (57 per cent) and psychology (65 per cent), and second for computer science (65 per cent) (Curtin Open Knowledge Initiative, 2021). SMU Libraries has continued to make SMU research publicly available on InK, the SMU repository, where SMU publications were downloaded 1.2 million times in the year of 2020. The Research Data Repository (launched in April 2020) also increased the visibility of SMU research, and there were over 5,100 downloads of datasets in 2020.

Engagement & Promotion: Emailers to SMU community

08 Mar 2021

Impactful research by the women faculty in SMU

In celebration of International Women's Day on 8 March 2021, we highlight one paper each by SMU women faculty (**name in bold**) that had high citations and higher than expected impact compared to the average citations in their subject field using Field-Weighted Citation Impact (FWCI). Their research influenced the work of many other researchers.

Lee Kong Chian School of Business

Wang, Heli, Qian, C. (2011). Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. *Academy of Management Journal*. DOI: 10.5465/amj.2009.0548

Aryee, S. Srinivas, E.S., **Tan, Hwee Hoon**. (2005). Rhythms of life: Antecedents and outcomes of work-family balance in employed parents. *Journal of Applied Psychology*. DOI: 10.1037/0021-9010.90.1.132

19 Mar 2020

Dear SMU community

The SMU repository **InK** (**I**nstitutional **K**nowledge) is 10 years old. SMU publications with open access availability in InK have excellent discoverability in Google Scholar and enjoy high downloads. High downloads of a paper in InK correlates with higher citations, and papers with open access availability in InK tend to have higher citations than those without, based on a study done with a set of over 1,000 journal articles in InK.

Please continue to upload the full text of your publications in IRIS and we will make them available in InK for better visibility and discoverability of your research work.

INK, 2010 - 2020

Excellent discoverability of SMU publications in Google Scholar.

Google Scholar ⟶ SMU publications in InK

21 referrals per item (3x more than other repositories)

Positive correlation between downloads and citations
下载量与引用量呈正相关

- A set of journal articles with SMU affiliation published between 2009 and 2018 was extracted from Scopus and SciVal including the citation count and the Field-Weighted Citation Impact (FWCI)
我们从 Scopus 和 SciVal 中提取了一组 2009 年至 2018 年间发表的 SMU 附属期刊文章，包括总引用数和FWCI数据

- The number of downloads for the full text in the IR were extracted for the same set of articles.
我们提取了同一组文章的InK下载量

- Used FWCI instead of number of citations to measure citation impact as the journal articles in the set were from a range of disciplines and the number of citations would not be comparable across disciplines
使用 FWCI 而不是引用次数来衡量影响，因为SMU发表不同学科的期刊文章，而不同学科之间的引用次数不具有可比性

- Hypothesis that downloads of the PDF in the IR were positively correlated to FWCI was accepted where N = 1091 and $p < 0.001$
PDF下载量与 FWCI 正相关的假设被接受，其中 N = 1091 且 $p < 0.001$

Correlation Table

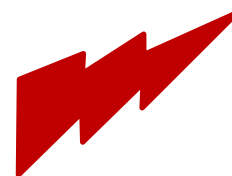|			Spearman		Kendall	
			rho	p	tau B	p
Field-Weighted Citation Impact	-	Downloads in InK	0.386***	< .001	0.265***	< .001

* p < .05, ** p < .01, *** p < .001

Open Access Citation Advantage
开放获取引文优势

H1: Downloads in InK are positively correlated with citations
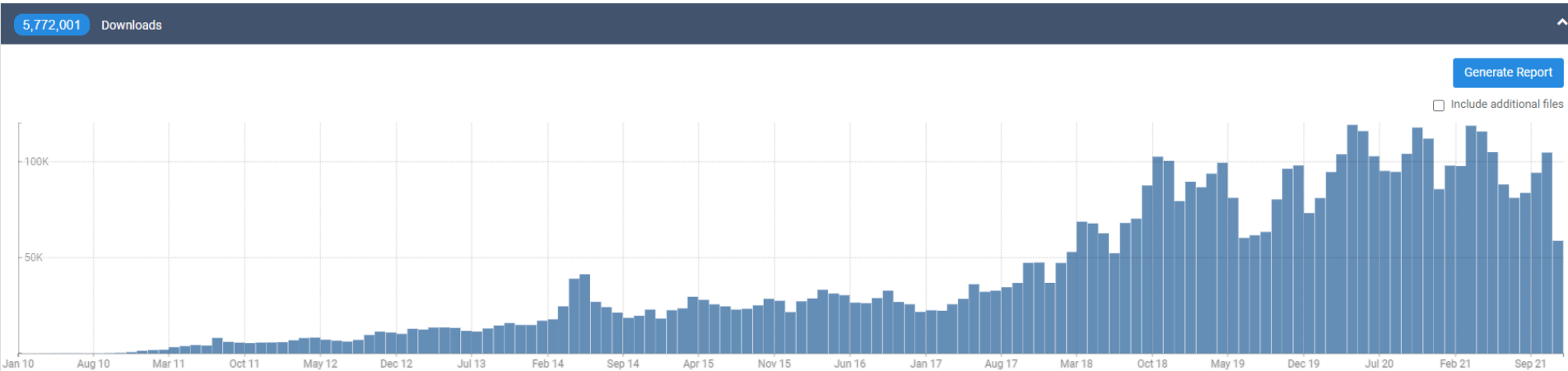
N = 1091, p < 0.001

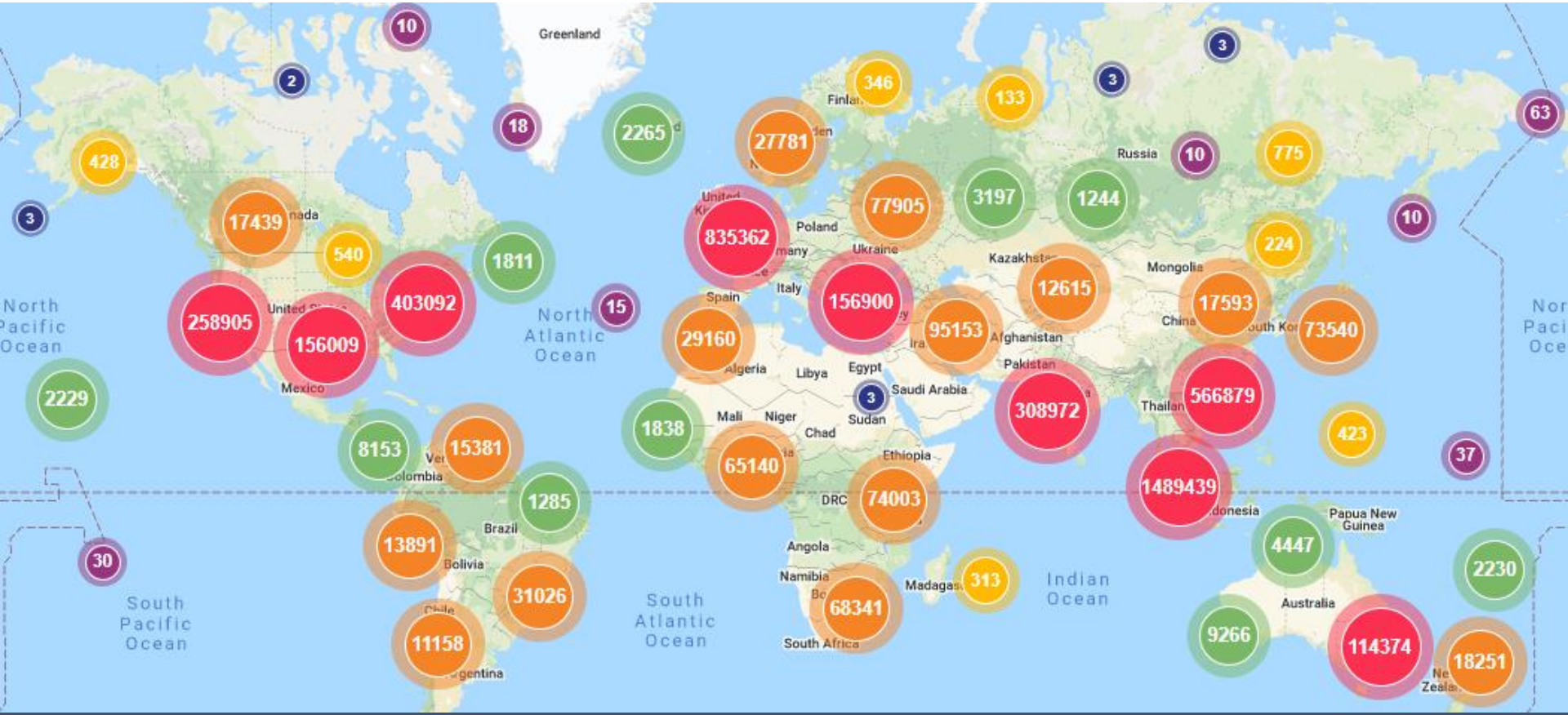结论：InK下载量和引用数量呈正相关

Usage of InK
InK的使用

Since our launch in January 2010, we have grown the number of downloads.

In 2020 and 2021, we are accumulating 1 million downloads in less than one year.

自2010年InK运行起始，下载量逐年增加。2020年和2021年，下载量在一年内超过一百万。

Usage of InK

SMU Research Data Repository
SMU开放研究数据平台

- SMU Research Data Repository (RDR) is a tool and service that facilitates the **management, storage and long-term retention of research data** underlying publications.

- SMU开放研究数据平台(RDR)在研究数据的管理，存储和长期保存方面提供服务

- Support SMU's Research Data Management Policy

- 支持SMU的研究数据管理政策

- Launched in Apr 2020

- 2020年4月开始运行

- Platform hosted on Figshare (Digital Science)

- 托管型平台Figshare

researchdata.smu.edu.sg

# Conclusion: InK Success factors
结论：InK成功的因素

Grow IR in a sustainable way by harvesting from CRIS and proactively increase the full text in IR

通过从CRIS系统获取元数据和全文数据，保证IR的可持续发展

主动通过多元方式获取全文数据

Ensure publications and data are discoverable in search engines

确保搜索引擎可见度

Align IR to SMU strategy for research: to address societal challenges through cutting edge research and to conduct leading research with direct societal impact

机构知识库和 SMU 研究战略保持一致：通过前沿研究应对社会战，并开展具有直接社会影响的研究
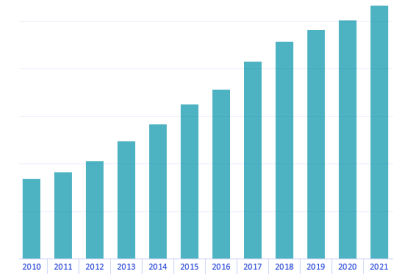
Thank you 谢谢 ☺

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