

# 学术传播活动中的数字足迹

浮现中的数字学术：“社交媒体与学术成果传播”研讨会



THE UNIVERSITY  
*of* NORTH CAROLINA  
*at* CHAPEL HILL

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## 内容摘要

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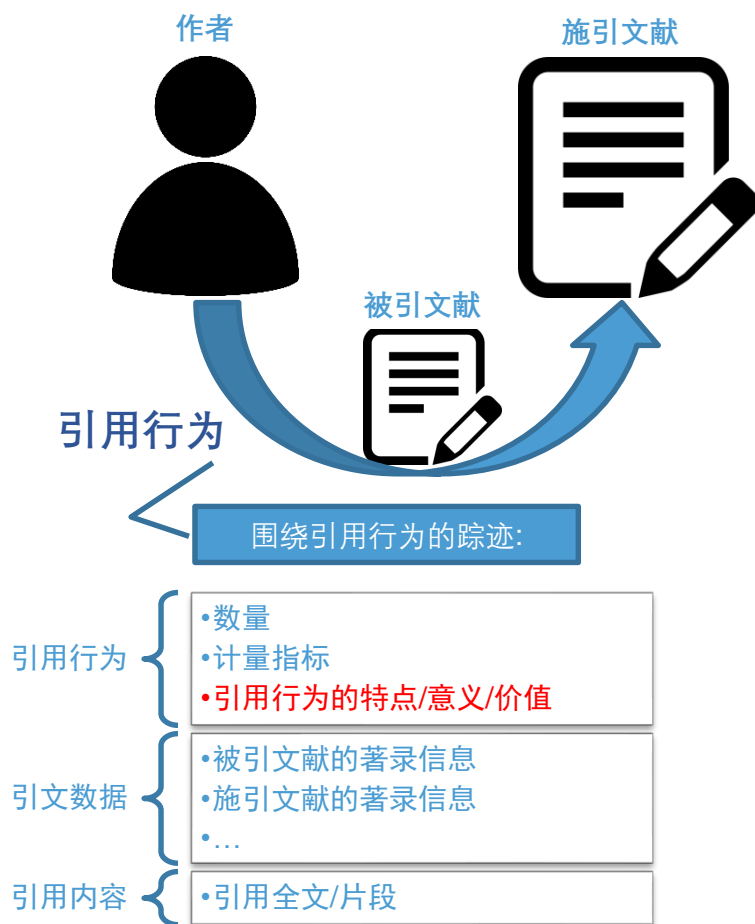
- 随着学术研究活动的数字化和互联网化，学者们在科研工作中在各网络平台上留下越来越多的数字足迹。本次研讨将围绕科学研究活动的足迹展开。
- 从传统被最广泛研究的引文足迹到数字时代的各类数字足迹，本次研讨将分享相关理论背景，结合相关实证探索，分析学者信息行为与足迹的关系，探讨各类数字足迹的意义与局限。

## 学术传播 Scholarly Communication

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- 学术传播/学术交流的大背景：
  - 正式渠道：出版（期刊、书目、会议论文集）。
  - 非正式渠道：人际沟通（信函、会议、无形学院、学术社群交流等）。

# 引文足迹 Citation Traces

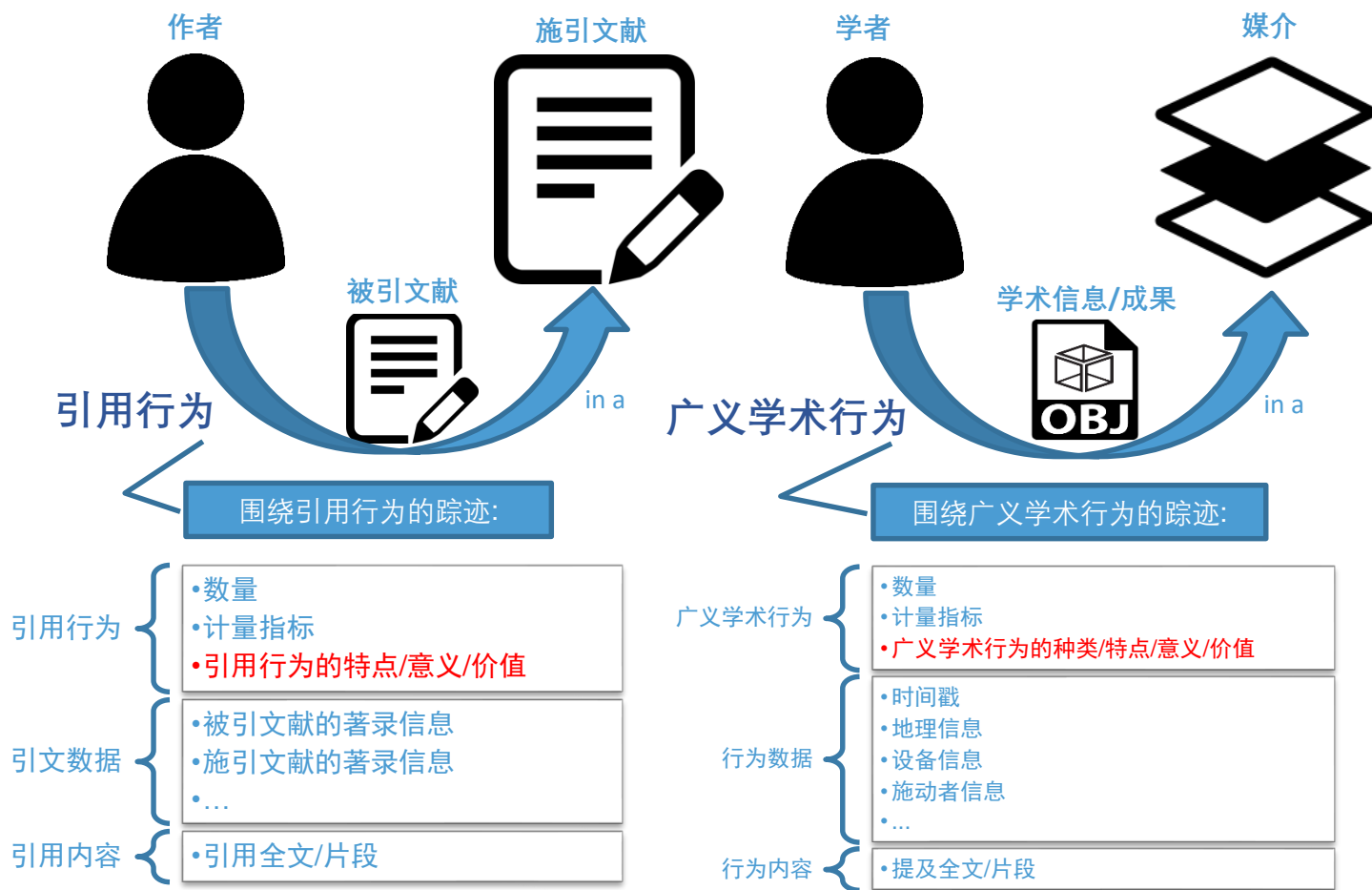


# 引文理论 Citation Theories

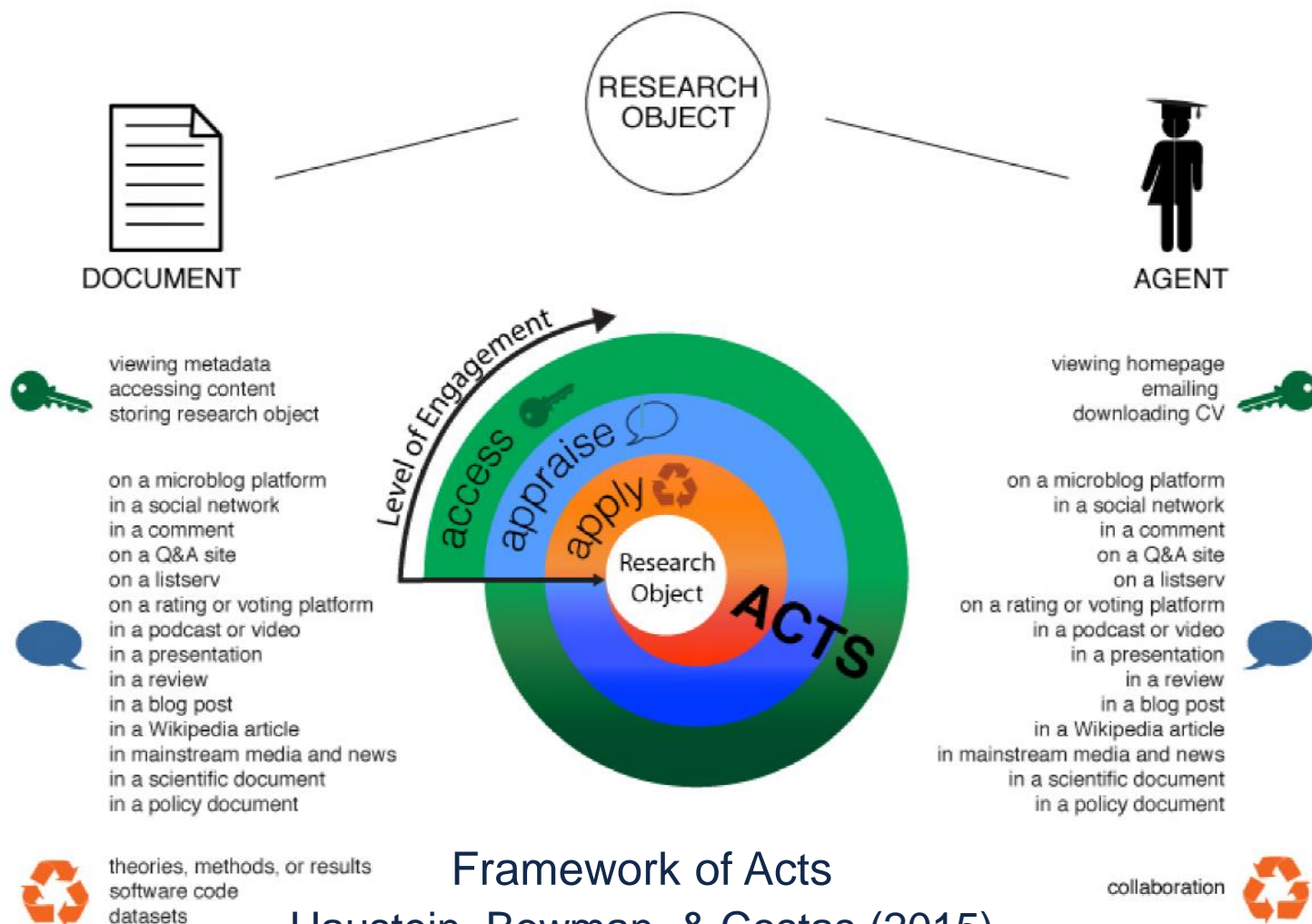
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- 规范主义理论 normative theory
  - 科学的精神特质：“ethos of science”
  - Kaplan, 1965; Merton, 1973; Merton, 1988; Ziman, 2000
- 构建主义理论 constructivist theory
  - 科学知识是被社会建构的：“socially constructed through the manipulation of political and financial resources and the use of rhetorical devices”
  - 劝说理论、敷衍引用、马太效应、负面引用...
  - Gilbert, 1977; Latour & Woolgar, 1979; Latour, 1987; Knorr-Cetina, 1991
- 概念符号理论 concept symbol theory/semiotics
  - Garfield, 1964; Small, 1978; Cronin, 2010
- 心理过程理论、自反引文理论、引文进化理论， .....

# 广义数字足迹 Digital Traces



# 广义学术行为 Scholarly Acts



**Framework of Acts**  
Haustein, Bowman, & Costas (2015)

# 数字足迹的类型

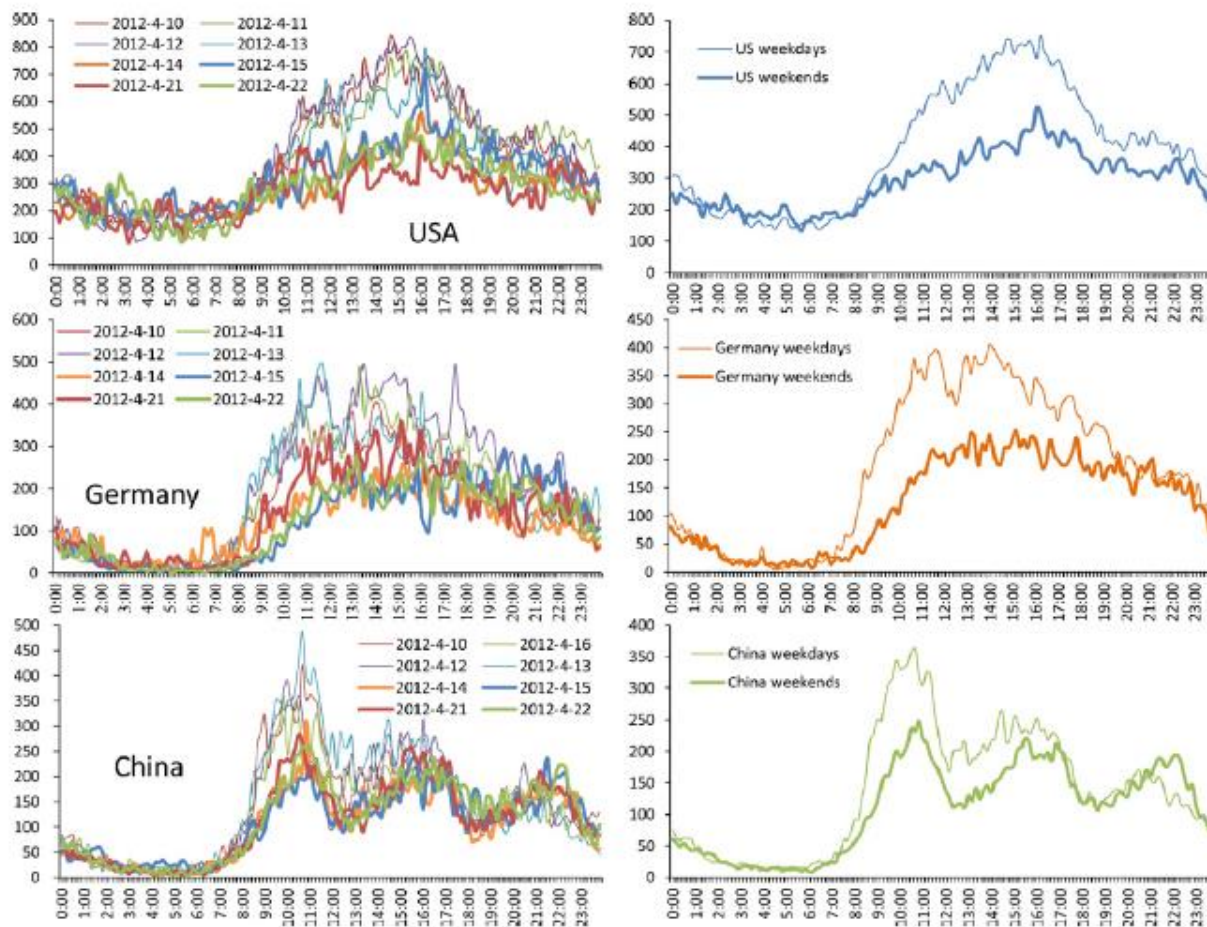
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Altmetric, Impact Story, PLoS ALM等收集和分类的方法：

- Views
  - 不同类型的views (e.g., html vs. pdf)?
  - 不同平台的views (e.g., publisher website vs. other platforms)?
- Saves
  - 下载?
  - 保存到文献管理软件(e.g. Mendeley)?
- Shares
  - 讨论(discussion)?
  - 推荐(recommendation)?
  - 从一个平台分享到另一个平台 vs. 在一个平台内分享?
- Citations

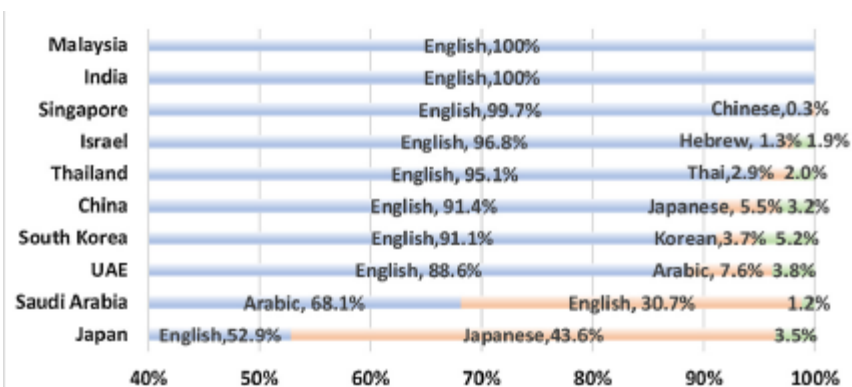
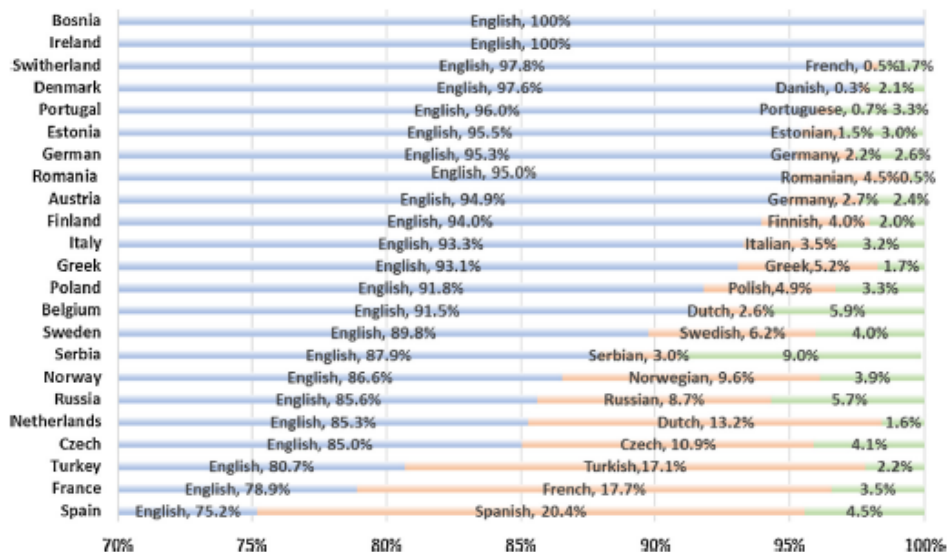


# 从数字足迹看科学家工作时间——以Springer下载数据为例



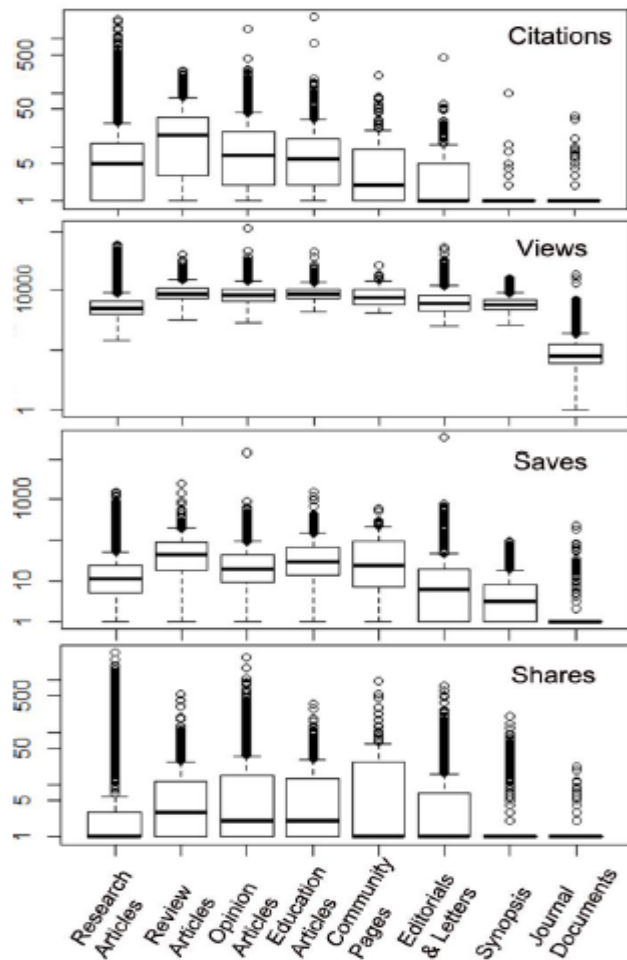
三国科学家周末和周日下载Springer期刊情况 (Wang et al., 2012)

# 从数字足迹看学术传播的语言使用情况——以Twitter为例



欧洲和亚洲国家在Twitter上交流科学文章语言使用情况 (Yu, Xu, & Xiao, 2018)

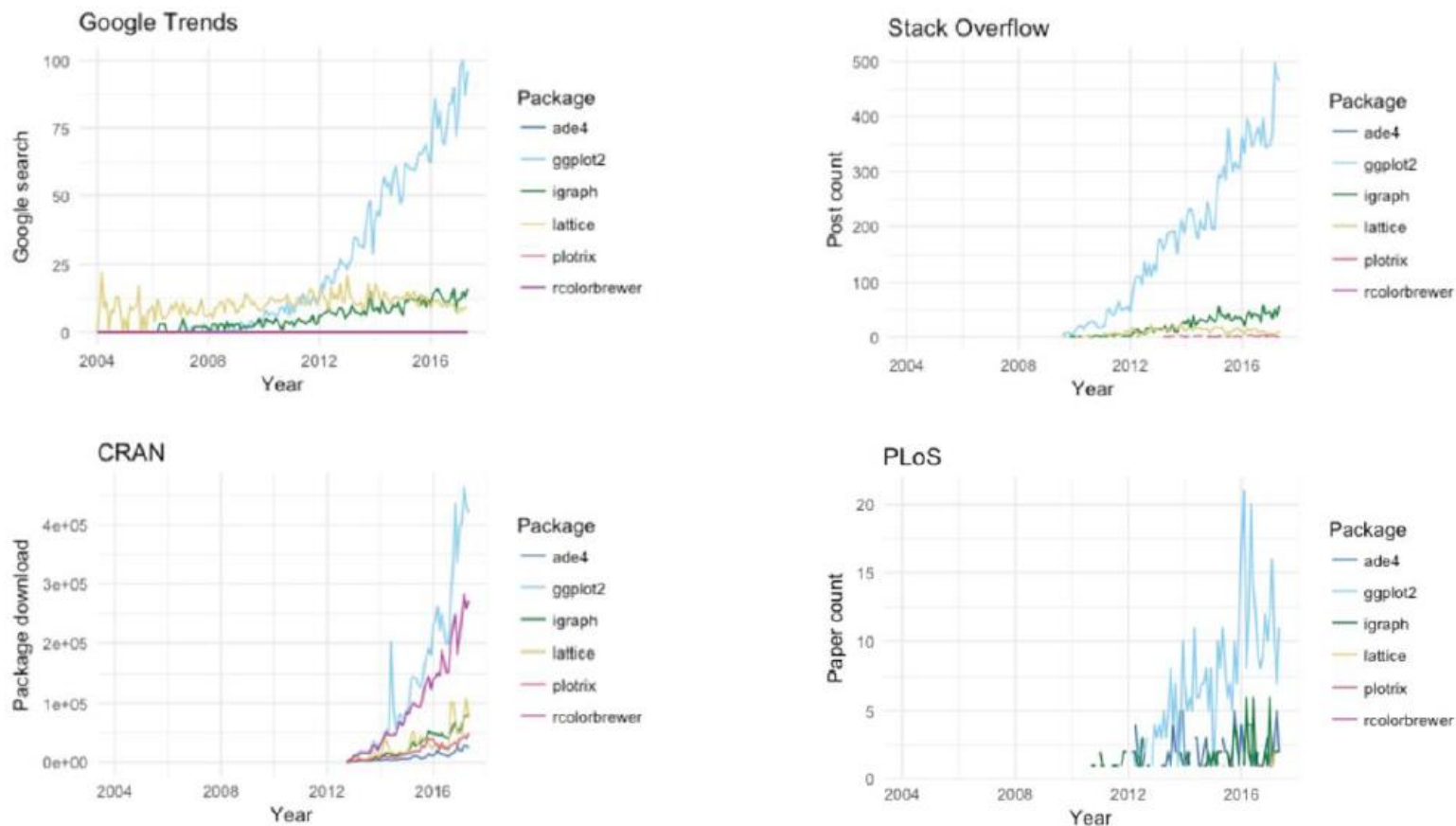
# 文章类型与数字足迹的关系——以PLOS Publications为例



		Review Articles			
		Citations	Views	Saves	Shares
Research Articles	Citations		0.61**	0.63**	0.40**
	Views	0.44**		0.74**	0.59**
	Saves	0.36**	0.60**		0.53**
	Shares	0.12**	0.40**	0.37**	
		Education Articles			
		Citations	Views	Saves	Shares
Opinion Articles	Citations		0.21*	0.21*	-0.07
	Views	0.46**		0.64**	0.57**
	Saves	0.46**	0.64**		0.45**
	Shares	0.29**	0.65**	0.39**	

文章类型与数字足迹的关系 (Xu & Hemminger, 2015)

# “非传统”学术客体的数字足迹——以R包为例



可视化R包的搜索、下载、讨论和引用情况 (Li & Xu, 2017)

# 理解“替代计量学” Interpretation of Altmetrics

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- 影响因素：
  - 时间
  - 科学领域
  - 平台与“行为”
  - 平台与用户
  - 其他
- 数据限制
- 数据可靠性
- 足迹vs.行为：充分必要条件？
- (Xu, 2018)

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