### 讓數字動起來吧!

用行動來提升研究能見度



PETER DRUCKER

議題--關鍵報告: 數字與校園 社群的連結

今日的研究是明日的創新 - 綜觀台灣學術研究力

Gary Cheng 程世仁

WILEY

Action.

數據對研究的關鍵影響力

Elsevier 台灣韓國資深行銷經理

Weiwei Chena



**Empowering Knowledge** 

### **DISCOVER**

Asking the right questions, finding information and finding theoretical solutions

### **ENGAGE**

Exchanging knowledge, understanding and resources in a reciprocal context

### **IMPACT**

The contribution that research makes to the world and the lives of the people living in it

Source: Research Impact, <a href="http://www.uq.edu.au/research/impact/">http://www.uq.edu.au/research/impact/</a> the University of Queensland, Australia

Arif E. Jinha

258

Learned Publishing, 23:258-263 doi:10.1087/20100308

### ntroduction

From the first model of the modern journal, Le Journal des Sçavans, published in France in 1665, followed by Philosophical Transactions, published by the Royal Society in London later that year, the number of active scholarly journal titles has increased steadily. In 2006 there were roughly 23,750 titles.<sup>2</sup> There are direct correlations between the numbers of researchers, journals, and articles.<sup>3</sup> Björk et al. have argued that changes in the dynamics of literature-based research, provoked by the communications revolution, have made the article itself relevant today as the basic molecular unit of research communication.

The correlations are revealed by studies in the past decade on global research output that have reported the growth rate and annual figures for researchers, journals, and articles.3-6 Researchers retire, but more new researchers emerge. Journals fold, but a higher number are launched. Changes over time in the number of active researchers and journals describe the dynamics of both publishing and research, and the increase in absolute size of active production.5 However, the article has a static nature that makes it unique as a metric. Articles, once created and published, are rarely destroyed. They can always be reactivated, and through citation each article occupies a position in the architecture that researchers can continue to build upon. The article is born essentially through the efforts of journals and their publishers, but articles survive the death of journal titles. Although disciplines develop distinct fields of inquiry, there are ultimately no fixed boundaries in scholarship - this is a single system of documented written knowledge.

Therefore a metric that describes the quantitative whole of this system – the global total of all modern scholarly journal



# Article 50 million: an estimate of the number of scholarly articles in existence

### Arit E. JINHA

Faculty of Post-Doctoral and Graduate Studies, University of Ottawa

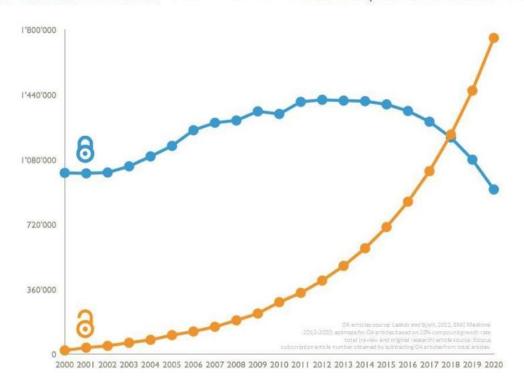
ABSTRACT. How many scholarly research articles are there in existence? Journal articles first appeared in 1665, and the cumulative total is estimated here to have passed 50 million in 2009. This sum was arrived at based on published figures for global annual output for 2006, and analyses of annual output and growth rates published in the last decade.

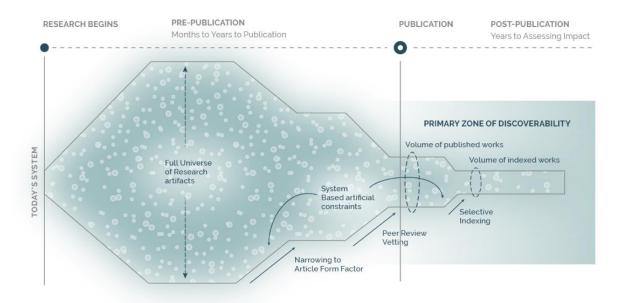


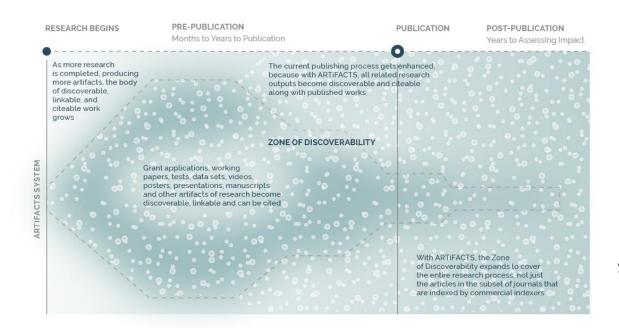
Arif E. Jinha

© Arif E. Jinha 2010

### Open access articles will overtake subscription articles from 2018







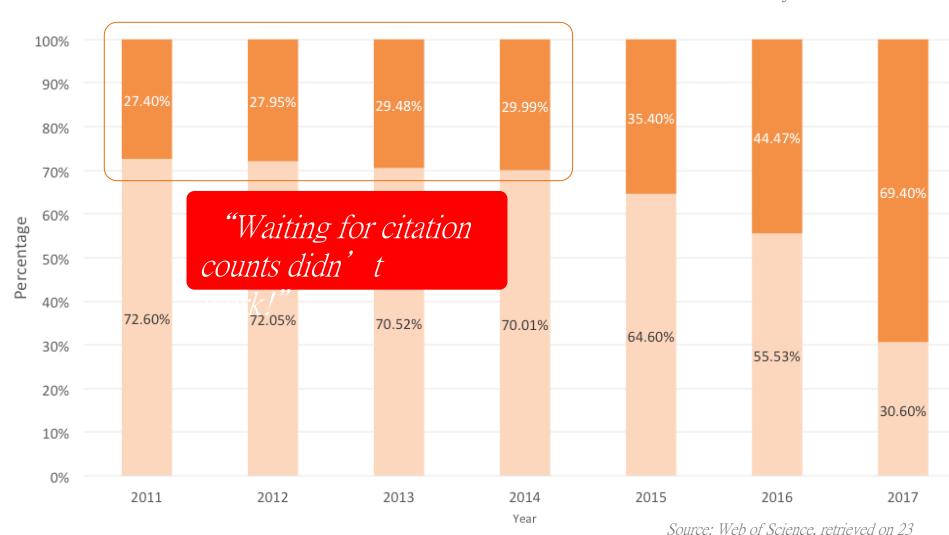


artifacts.ai

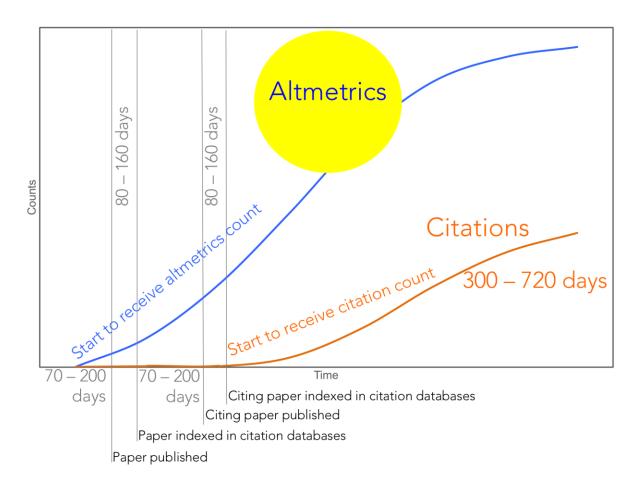
Published in high impact factor journals could end up with zero citation. About



August, 2017



Cited Uncited



"Unlike citation counts, visibility metrics are meant for **Actions**, are not meant for Evaluation?"

Waiting for

### citation is a long journey

if there is no actionable outreach

Outreach increases visibility, increases Altmetrics

### Fundamental Research



Theoretical Discoveries



Evidence Discoveries



**Publications** 



Applied Research

### Research Outreach











Dimensions











Academia Communities



Non-academia Communities





Researcher Profile

+
Citation Analysis
+
Institutional Repository

End-to-end Research Workflow

### ORCID KUDOS (7)





### The Actions

for librarians

- I. Organize resources into research workflow: pre-publication, publication & post-publication
- 2. Support with research outreach (the post-publication activities)
- 3. Manage research impact evidences
- 4. Writing & creative support: story telling in research and infographic

### 101 Innovations in Scholarly Communication



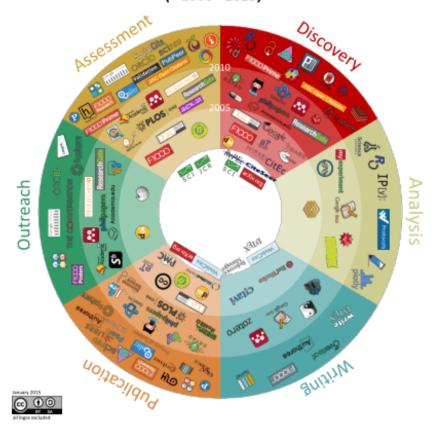


### THE CHANGING RESEARCH WORKFLOW



Science is in transition. This poster gives an impression of the exploratory phase of a project aiming to chart innovation in scholarly information and communication flows from evolutionary and network perspectives.

### 101 Innovative tools and sites in 6 research workflow phases (< 2000 - 2015)



We intend to address the questions of what drives innovation and how these innovations change research workflows and may contribute to more **open**, **efficient** and **good** science.

### Most important developments in 6 research workflow phases

	Discovery		Writing	Publication	Outreach	
Trends	social discovery tools	datadriven & orawskawoed science	collaborative online writing	Open Access & data publication	scholarly racial media	article level (alt)metric
Expectations	growing importance of data discovery	more enline analysis tools	more integration with publication & assessment tools	more use of "publish first, judge later"	use of altmetrics for monitoring outreach	merc open and post- publication peer review
Uncertainties	support for fail-text search and text reining	willingness to share in analysis phase	acceptance of collaborative online writing	effect of journal/publisher status	requirements of funders & institutions	who pays for costly qualitative assessment
Opportunities	discovery based on aggregated OA full text	open latinoses.	semantic tagging while writing/citing	reader-side paper forwatting	using repositories for institutional violative	using author-, publication- and affiliation (0):
Challenges	real semantic search (concepts & relations)	reproductivity	solety/privacy of online writing	globalization of publishing/access stendands	making sutreach a two-way discussion	quality of measuring looks
Most important long- term development	multidisciplinary + distion-enhanced detabases	caliabaration + data- driven	entine writing platforms	Open Access	reore & better connected researcher prefiles	importance of society relevance + non- gublication contribution
Potentially most disruptive development	semantic/concept search + contextual/tocial reconversedations	open science	collaborative writing + integration with publishing	circumventing traditional publishers	public access to research findings, also for agends setting	moving away from simp quantitative indicator

### Typical workflow examples





# Supporting you through the research process.









library.unimelb.edu.au/research





find the questions



find the channels



find the audiences









### **InCites**

WEB OF SCIENCE™

Scopus®















CiteScore™

**JOURNAL CITATION REPORTS** 



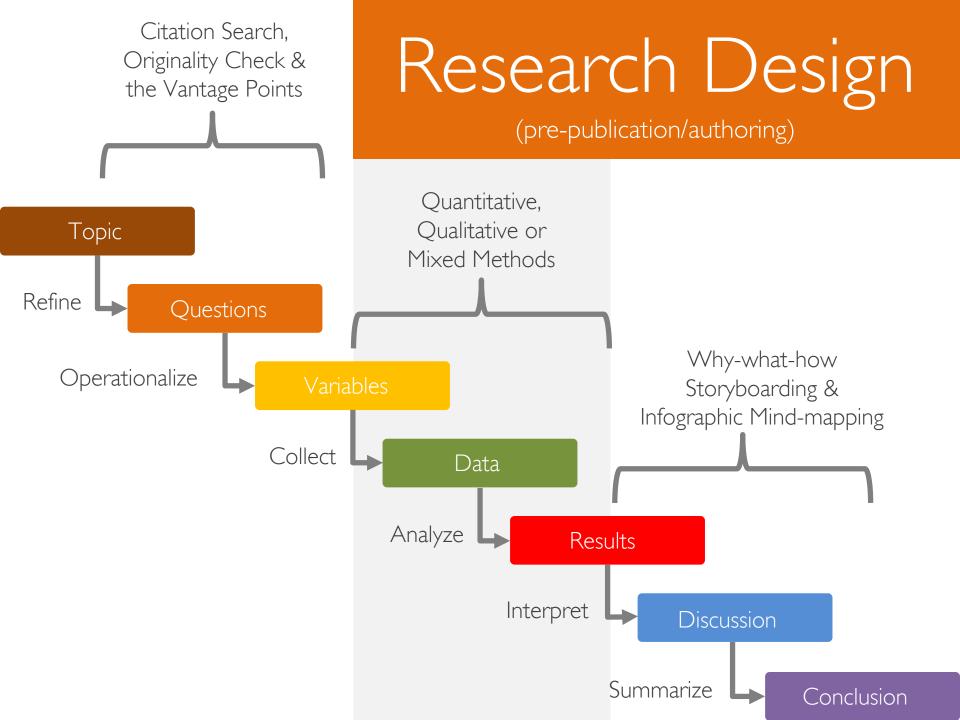




### The Actions

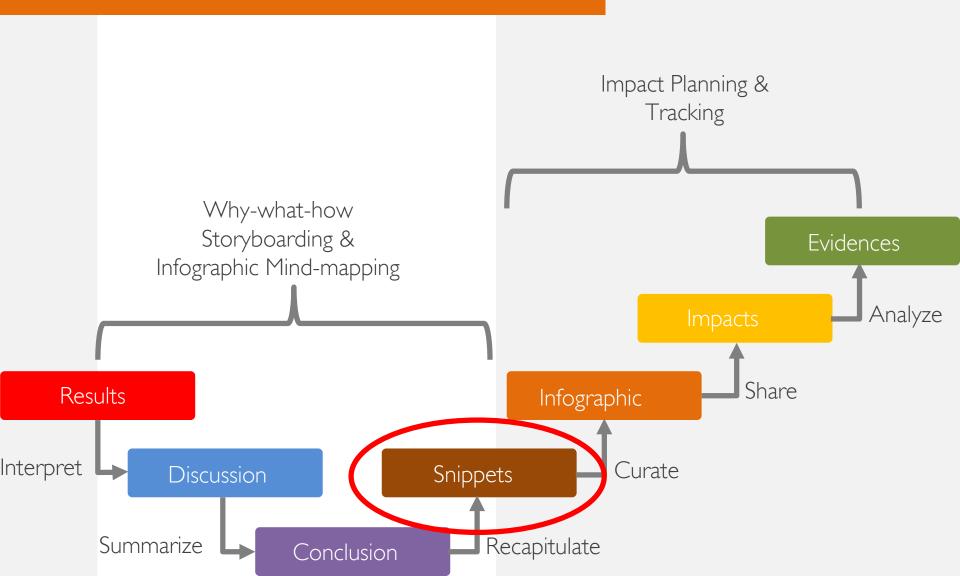
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### Research Design

(post-publication/outreaching)



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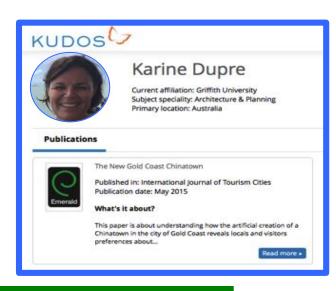
## FREF Stand out. Make sure your research gets read and applied.

### Wherever you publish or share your work, use Kudos to make this more effective:

**Open** up your research so new audiences can find and understand it. **Track** the most effective networks for getting your work read, discussed and cited. **Learn** where to focus your efforts to make best use of your time. **Improve** the metrics by which you are evaluated.



### Plain Language Summary



### Purpose

**Original Abstract** 

The purpose of this paper is to study the relationship between culture-based to
cultural sustainability in the established tourism destination of Gold Coast, Austra
the debate on local development and tourism through evaluating the development of the newly-born Gold
Coast Chinatown.

### Design/methodology/approach

— Two types of analysis were developed for this study. The first one aims at assessing the general features of the case study site. It was done by the urban analysis of the precinct, the count of the shops associated with the identification of their function (e.g. retail, services, etc.), street visual survey, and the assessment of ethnic expression/representations. The second analysis aims at assessing place-attachment, development impacts and cultural attitude. It was done by questionnaire surveys.

### **Findings**

— The analysis evidences mainly two findings. First, tradition, authenticity or ethnicity are not perceived as key drivers, and tangible pre-requisites do not appear as a priority for a culture-based tourism development. Second, correlation studies show the longer the length of residence the higher is the attitude towards positive perceived economic impacts and positive cultural attitudes. It is the opposite of what is usually found in literature review. As such, it challenges the concept of cultural sustainability, and helps us to reconsider the weight of the evaluative factors of community attachment, development impact and cultural stitude in tourism development.

### Originality/value

— The recent creation of the Gold Coast Chinatown not only raises the question of the rationale of what is usually recognised as a community-based settlement, hence its cultural foundation and the legitimacy of transfer of cultural models, but also the processes at stake between cultural sustainability and tourism development. To the knowledge, no publication exists on this case study.

- Important structure and language for specialists
- But takes time to read even the abstract
- And not easy for nonspecialists to understand

### What's it about?



From the authors

This paper is about understanding how the artificial creation of a Chinatown in the city of Gold Coast reveals locals and visitors preferences about this development.

### Why is it important?



From the authors

This work is timely because the Chinatown is still under development and has not reached yet it final phase. It not only documents the physical features at this stage but also evidences the surprisingly positive attitudes.

### Perspectives



Karine Dupre (Author)

Unlike other cities, the City of Gold Coast is really entrepreneur-like and it is striking to find out that people from our survey are in majority supporting this direction. It means that place-making cannot be considered only from the "traditional" perspective of "normal" cities.

### Simple Summary

- Quicker for specialists to scan and filter
- Easier for non-specialists and speakers of other languages to understand
- Better for engagement with media and the public

### Publisher's Comment



Usage of full-text articles trebled for those authors using the Kudos tools

http://www.emeraldgrouppublishing.com/about/news/story.htm?id=6247



Ozone Depletion Explains Global Warming Peter L. Ward

Current Physical Chemistry, May 2017, Bentham Science Publishers DOI: 10.2174/1877946806999160629080145 Claim this publication

### Why climate changes

### What is it about?

The globe has warmed more than one degree Centigrade since 1970 and some of this warming appears to have been caused by humans, but greenhouse-warming theory has never been demonstrated by experiment to actually cause global warming. Manufactured chlorofluorocarbon gases (CFCs) and chlorine and bromine emitted during volcanic eruptions are observed to deplete the ozone layer. The ozone layer normally absorbs most ultraviolet-B solar radiation protecting life on Earth from this very "hot", sunburning, skincancer-causing radiation. When ozone is depleted, more ultraviolet-B radiation is observed to reach Earth, cooling the ozone layer and warming Earth. Ozone depletion theory provides a more direct, more detailed, and more precise explanation for global warming observed in the past 100 years and throughout Earth history than greenhouse-warming theory.

### Why is it important?

On 12 December 2015, 195 countries agreed in Paris to reduce greenhouse-gas emissions in order to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" at a cost thought to exceed ten trillion dollars. This is likely to be a waste of money. It is extremely important that we understand clearly what has caused observed global warming.

### Perspectives



**Dr Peter Langdon Ward** (Author)

Science Is Never Settled

In 2006, I discovered that the greatest volcanism recorded within Greenland ice was contemporaneous with the greatest warming as the world warmed out of the last ice age from 12,000 to 9,000 years ago. This did not make sense because major explosive volcanic eruptions throughout recorded history have typically caused 0.5 degrees Centigrade global cooling for 2 to 4 years. I have worked full-time since then trying to understand a wealth of data that show clearly that ozone depletion is far more important to climate change than greenhouse gases.

**Read Publication** 







The following have contributed to this page: Dr Peter Langdon Ward



In partnership with:



### Authors



Dr Peter Langdon Ward

Science Is Never Settled

### Resources

### **Related Content**

### Why Climate Changes

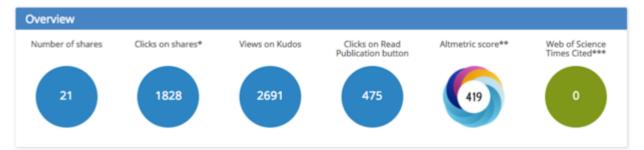
Extensive website containing videos of talks, all of my papers published or in process, and fully-referenced scientific presentation of observations, interpretations, and conclusions.

### Video

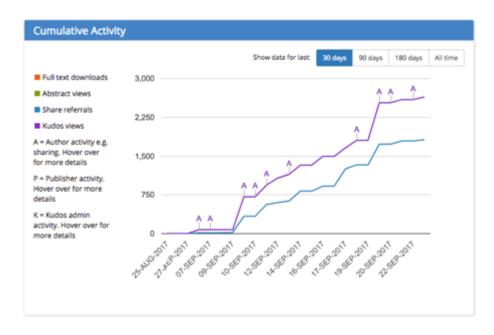
### TEDx: Volcanoes, a forge for climate change

A TEDx Wilmington talk about volcanoes and climate change given on 28 October 2015.

### **Publication metrics**









advanced search

⑥ OPEN ACCESS 
Ø PEER-REVIEWED

RESEARCH ARTICLE

### Analysing researchers' outreach efforts and the association with publication metrics: A case study of Kudos

Mojisola Erdt , Htet Htet Aung, Ashley Sara Aw, Charlie Rapple, Yin-Leng Theng

Published: August 17, 2017 https://doi.org/10.1371/journal.pone.0183217

Article	Authors	Metrics	Comments	Related Content
*				

Abstract

Introduction

Related work

Case study: Kudos

Methodology

Results and discussion

Conclusion

Supporting information

Acknowledgments

References

Reader Comments (0) Media Coverage (0) Figures

### **Abstract**

With the growth of scholarly collaboration networks and social communication platforms, members of the scholarly community are experimenting with their approach to disseminating research outputs, in an effort to increase their audience and outreach. However, from a researcher's point of view, it is difficult to determine whether efforts to make work more visible are worthwhile (in terms of the association with publication metrics) and within that, difficult to assess which platform or network is most effective for sharing work and connecting to a wider audience. We undertook a case study of Kudos (https://www.growkudos.com), a web-based service that claims to help researchers increase the outreach of their publications, to examine the most effective tools for sharing publications online, and to investigate which actions are associated with improved metrics. We extracted a dataset from Kudos of 830,565 unique publications claimed by authors, for which 20,775 had actions taken to explain or share via Kudos, and for 4,867 of these full text download data from publishers was available. Findings show that researchers are most likely to share their work on Facebook, but links shared on Twitter are more likely to be clicked on. A Mann-Whitney U test revealed that a treatment group (publications having actions in Kudos) had a significantly higher median average of 149 full text downloads (23.1% more) per publication as compared to a control group (having no actions in Kudos) with a median average of 121 full text downloads per publication. These findings suggest that performing actions on publications, such as sharing, explaining, or enriching, could help to increase the number of full text downloads of a publication.









### **Kudos for Publishers – Clients**

Acoustical Society of America

American Association for Clinical

Chemistry

American Association of Petroleum

Geologists

American Gastroenterology Association

American Institute of Aeronautics and

**Astronautics** 

American Nuclear Society

American Physical Therapy Association

American Society for Nutrition

American Society of Anesthesiologists

American Society of Microbiology

American Society of Nephrology

American Speech-Language-Hearing

Association

American Thoracic Society

Amsterdam University Press

Association for Computing Machinery

**ASTM International** 

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INASP INFORMS

Institute of Atmospheric Physics, Chinese

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JBJS Inc

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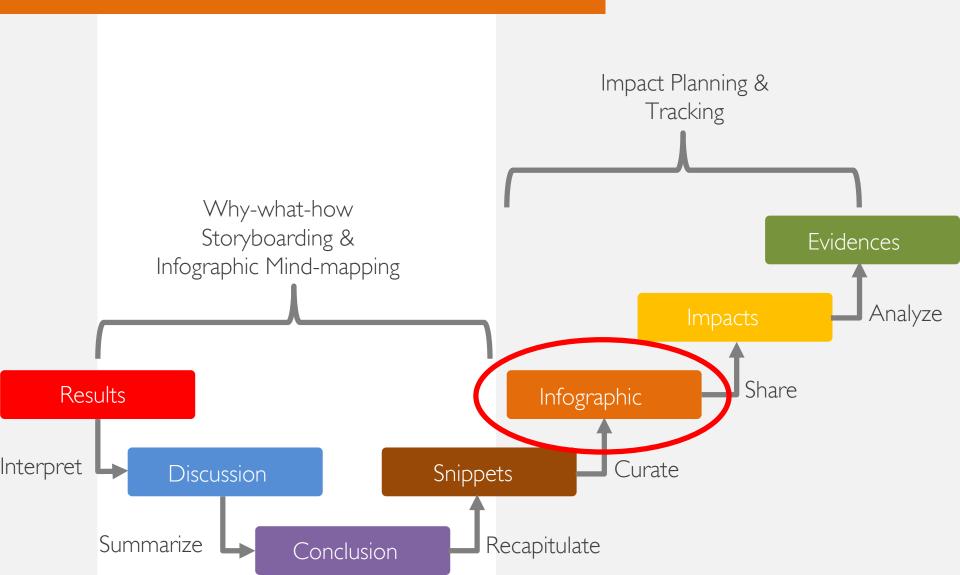
University of California Press Wageningen Academic Publishers

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Wiley

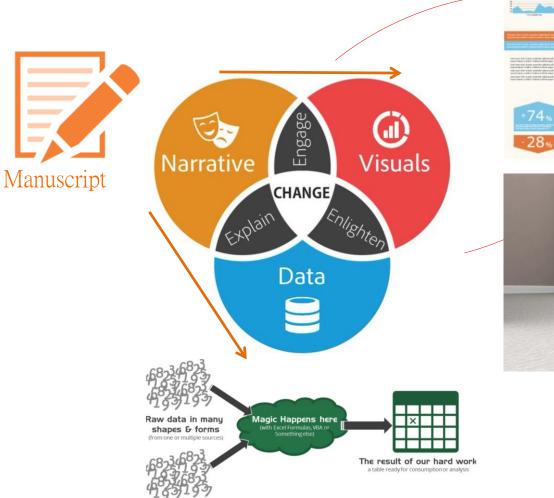
### Research Design

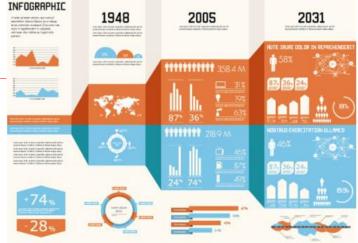
(post-publication/outreaching)



### Engage-Enlighten

& Explain

























10 trends

Why Animal ...

### ALZHEIMER'S DISEASE R





99.6%



20 years that will help us live healthier, stronger and small

10 Digital Health Trends for the Next 20 Years



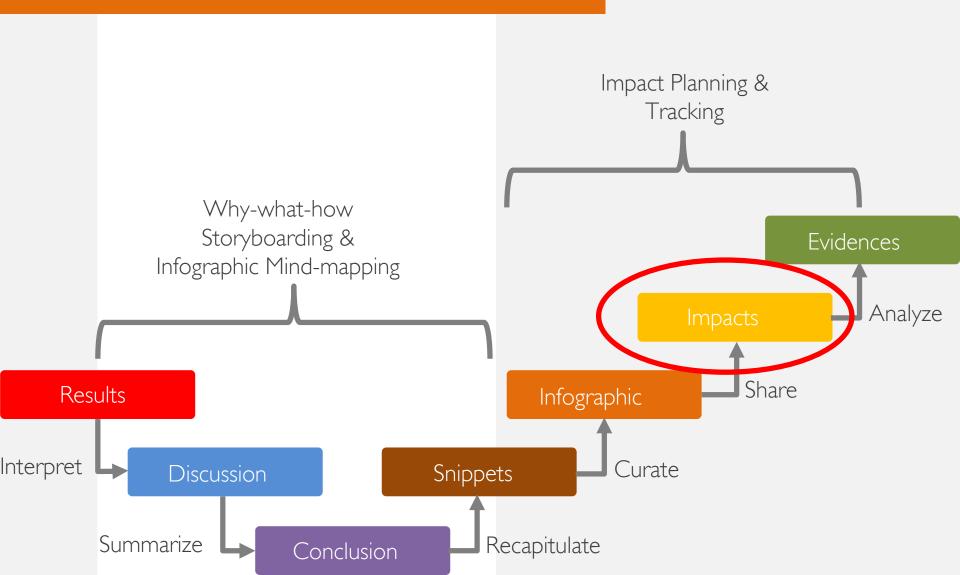
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### Research Design

(post-publication/outreaching)

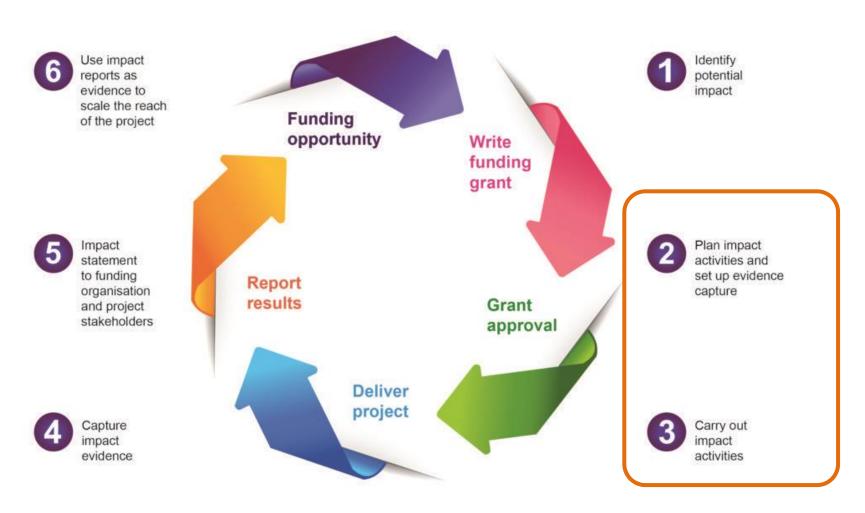


### 2,000 - 3,000 taxonomies

used by UK REF to define Research Impacts

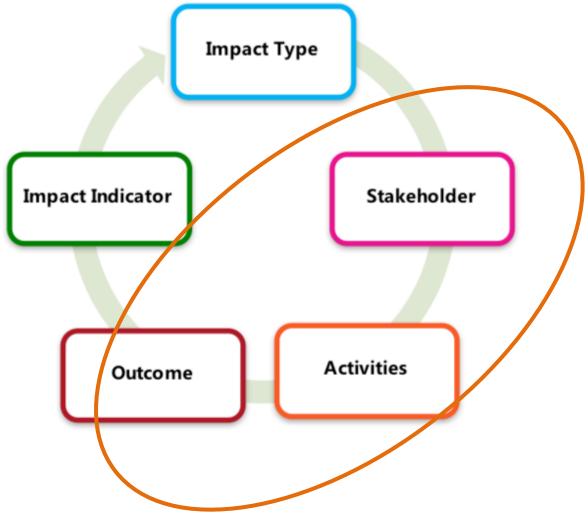


### Impact Assessment Framework



Source: Vertigo Ventures. <a href="http://www.vertigoventures.com/vv-impact-tracker/">http://www.vertigoventures.com/vv-impact-tracker/</a>

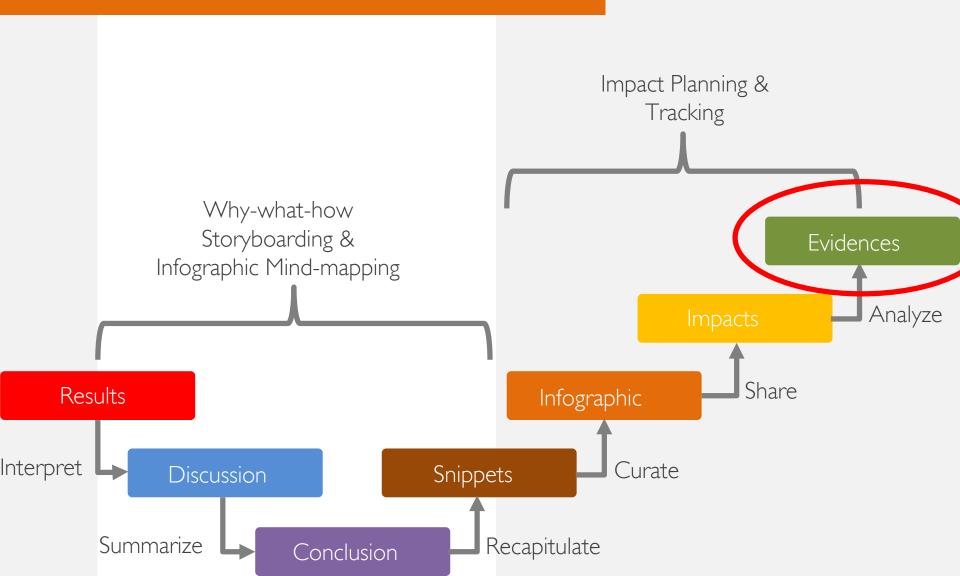
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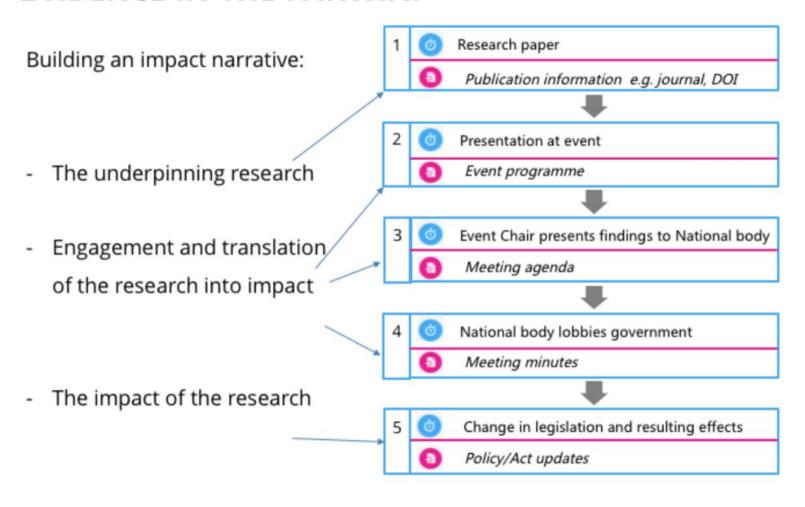
Source: Vertigo Ventures. http://www.vertigoventures.com/vv-impact-tracker/

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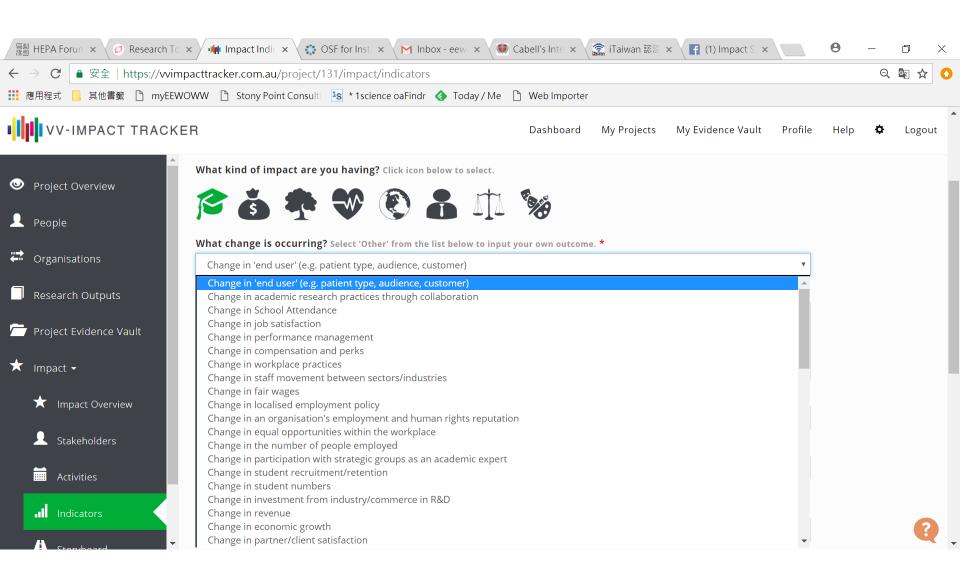


### **EVIDENCE IN THE PATHWAY**



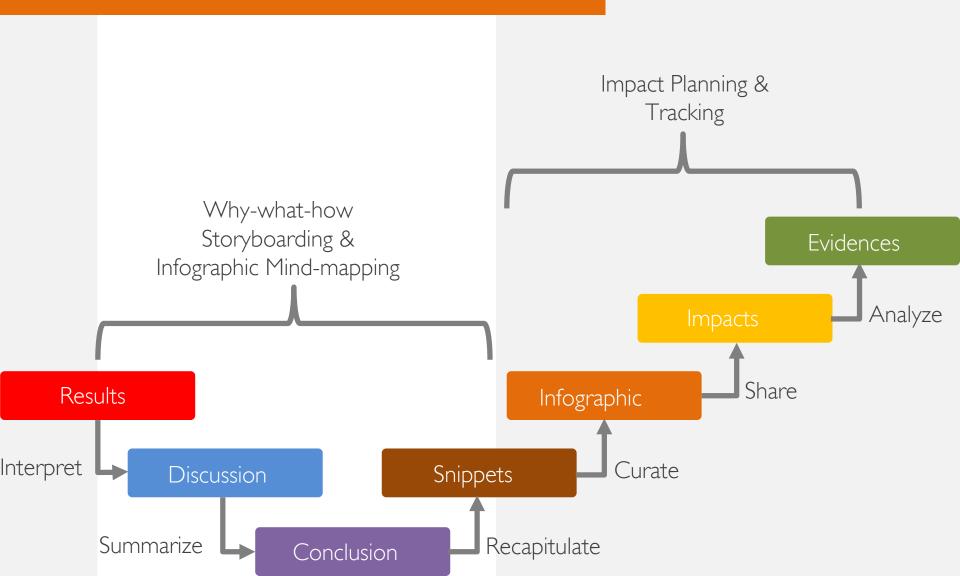
### Impact Assessment Framework





### Research Design

(post-publication/outreaching)

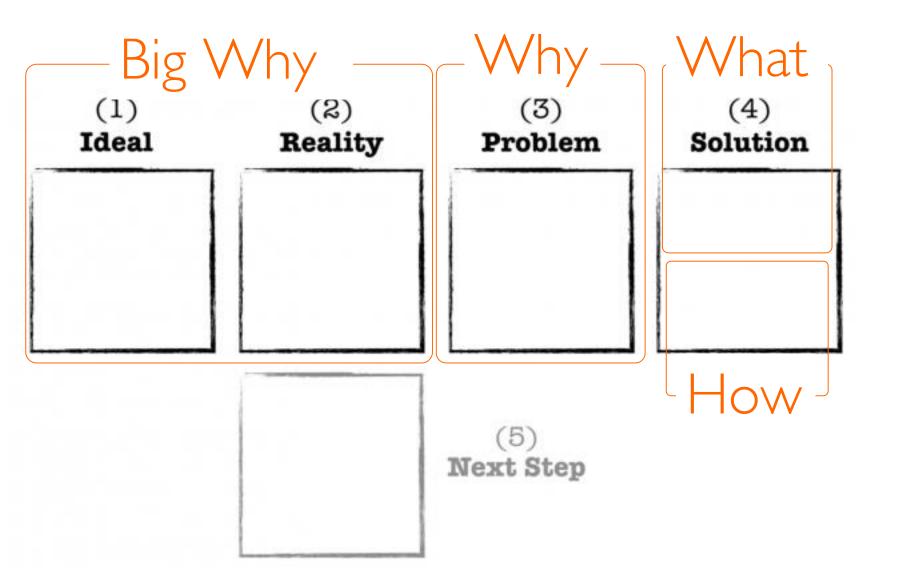




### The Actions

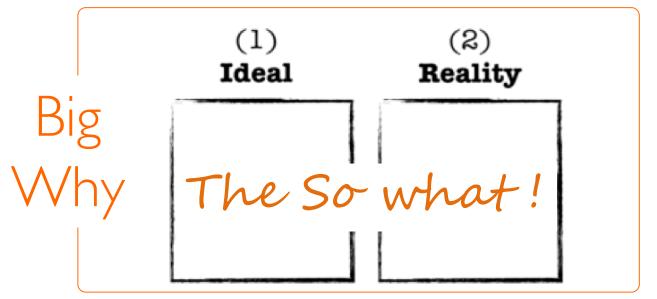
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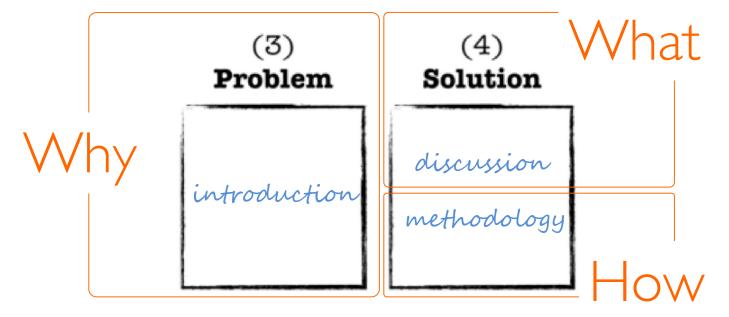


"Drama is anticipation mingled with uncertainty"

William Archer, British Playwright







The Story board Method





### A Role for Parasites in Stabilising the Fig-Pollinator Mutualism

Derek W. Dunn<sup>1,2,3</sup>, Simon T. Segar<sup>1,2</sup>, Jo Ridley<sup>3</sup>, Ruth Chan<sup>1</sup>, Ross H. Crozier<sup>4</sup>, Dougla:

because deaters about de necessaries conjectific, healing in musical format and interest and the second of the conference of the conferenc

interspecific ecological interactions characterised by social benefits to both patterse [2] that smally involve je intentaments by each. What factors thus prevent one per from imposing unusacianable costs onto the other to be runnalism stability [3-7]) in some mutualisms, the r, more reside partner, manipulates the other by ting benefits to cooperative individuals and costs to

### KNOWLEDO ANTIRETRO

Eric C. Tang<sup>1</sup>, Asha I <sup>1</sup>Columbia Universit

### INTRODUCT

- · Recent studies in high risk for HIV exposure prophylaxi reduce HIV acquisitio
- These results are pregarding their use term safety, potentia and provider willingn Initiation of PrEP re
- regular risk reductio Effective and safe use if providers are not of strategy and its risks : Currently, there are attitudes or exper

### prevention

- **OBJECTIVES** 1. To determine the cur internal medicine r
- prevention amongst h PrEP as a method of H
- To determine specific internal medicine re PrEP to high-risk popu

### **METHODS**

- 135 internal medicine Center were invited t PeFP
- Part of a larger study : in New York City
- 28-question survey co a. Demograp b. Type of pr
  - prophyla d. Concerns e. Willingne populatio

### REFERENCE

Received September 14, 2007; Accepted January 22, 2008; Published Man

### Why Animal Models Fail in ALZHEIMER'S DISEASE RESEARCH



Today, 5.3 million Americans suffer from Alzheimer's. Rates are expected to triple by 2050.

In the last decade, ZERO new drugs have been developed that can effectively treat ALZHEIMER'S



99.6% of Alzheimer's drugs that test successfully in animals

Currently, Alzheimer's research

relies on animal models

FAIL in human trials

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prescribing PrEP was inexperience rovirals. This may be reflective of the ning. This concern was followed by emonstrating its efficacy and lack of the CDC/DOH. More education doctors-in-training may alleviate some prepare them as they assume more of individuals in need of PrEP

### **GEMENTS**

poort from the Doris Duke Charitable Foundation Clinical

The Сиуылода осилку станарогластоп ензинеет Husani compares rush-hour traffic to a funnel.

Just the right amount of water can go through as fast as it's put in the funnel.



"The first few drivers could have a said. "Their behavior in the peak tir ripple effect, even if it doesn't look

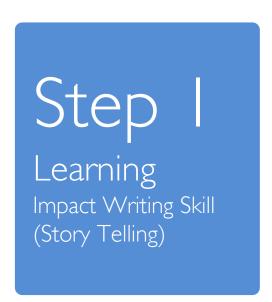
STEPHEN

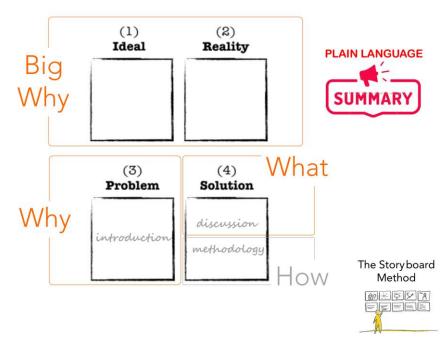
The pattern But a over 400 million to th 1.9 billion are are entrepreneurs too young to work the (ages 0-15) back 430 million are unemployed 577 million are older than 64 WHAT DO 7 BILLION **PEOPLE** 800 million work industrial jobs DO? 1.4 billion work in agriculture

1.7 billion in services

Funders and Founders

sources: cia.gov, census.gov, gemconsortium.org



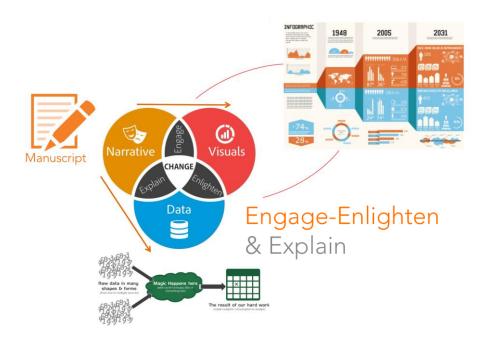




Step 2
Selecting
The Right Channels
& Tools

# Step 3 Measuring The Responses & Visibility





Step 4
Optimizing
To The Wider
Audiences

### Thank You

woeifuhwong@gmail.com

