

Sustainable Research Data Management

Opportunities, Threats and Tactics

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Warning

This is not science – this is an impulse for discussion

Thought Experiment on COVID

„What if a new Covid pandemic in 2070 showed that rapid containment is not possible because today's research data from the years around 2020 were not sustainably preserved?“



<https://doi.org/10.1515/bfp-2021-0029>

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Forschungsdaten und Bibliotheken – Gedankenexperimente zur Covidpandemie und Einschätzungen

Research Data and Libraries-A Thought Experiment on the Covid Pandemic and Considerations

Wolfram Horstmann

Aus der Zeitschrift *Bibliothek Forschung und Praxis*
<https://doi.org/10.1515/bfp-2021-0029>

Zitieren

Zusammenfassung

Was wäre wenn eine erneute Covidpandemie im Jahre 2070 zeigen würde, dass eine schnelle Eindämmung deshalb nicht möglich ist, weil die Forschungsdaten aus den Jahren um 2020 nicht nachhaltig gespeichert wurden. Ausgehend von dieser Frage werden Einschätzungen zur Rolle von Bibliotheken für Forschungsdaten entwickelt. Grundsätzlich wird geschlossen, dass Bibliotheken eine besondere Chance haben, einen wichtigen Anteil an der Bewältigung der Herausforderungen im Kontext von Forschungsdaten zu tragen und damit eine neue Identität der Bibliothek zu prägen.

Abstract

What if a new Covid pandemic in 2070 showed that rapid containment is not possible because today's research data from the years around 2020 were not sustainably preserved. Based on this question, considerations of the role of libraries for research data will be developed. It is concluded that libraries have a chance to play an important part in overcoming the challenges in the context of research data and thus to shape a new identity for the library.

Sustainability



Sustainability

*„ ... it takes a village of stakeholders to construct, manage, and sustain the necessary **knowledge infrastructure** for disseminating data products. “*

„University libraries, as data suppliers, and data science initiatives, as data consumers, are establishing productive partnerships. “

<https://arxiv.org/pdf/2109.01694.pdf>

Why it takes a village to manage and share data

Christine L. Borgman*, Distinguished Research Professor, Information Studies, UCLA

Philip E. Bourne, Dean, School of Data Science, University of Virginia

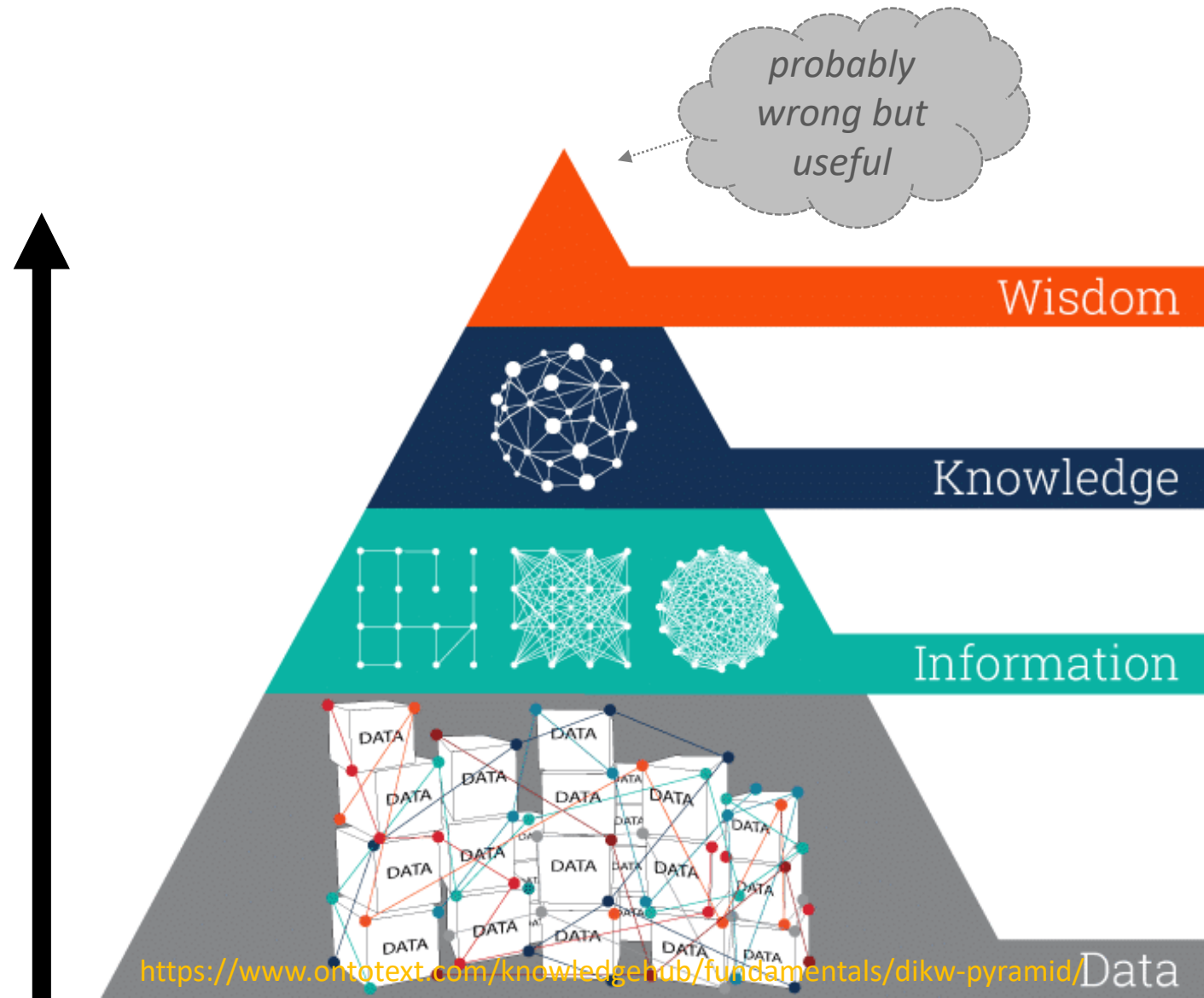
Invited manuscript for special issue of the *Harvard Data Science Review*, Changing the Culture of Data Management and Sharing: A Workshop. (2021, April 28-29). *National Academies of Sciences, Engineering, and Medicine*. Changing the Culture of Data Management and Sharing: A Workshop. <https://www.nationalacademies.org/event/04-29-2021/changing-the-culture-of-data-management-and-sharing-a-workshop>. Sponsored by National Institutes of Health.

Please cite as: Borgman, C. L., & Bourne, P. E. (2021). Why it takes a village to manage and share data. *Harvard Data Science Review* (under Review).

It takes a village to raise a child – African proverb

What to sustain? Sky-Thinking

TIME	CONTEXT	HUMAN FACTOR	ORG-LEVEL	INSTITUTION
,perpetual'	embedded	exclusive	societal	?
long-term	high	large	individual	Knowledge Infrastructure
mid-term	medium	medium	functional	Library
short-term	low	small	technical	Data Center

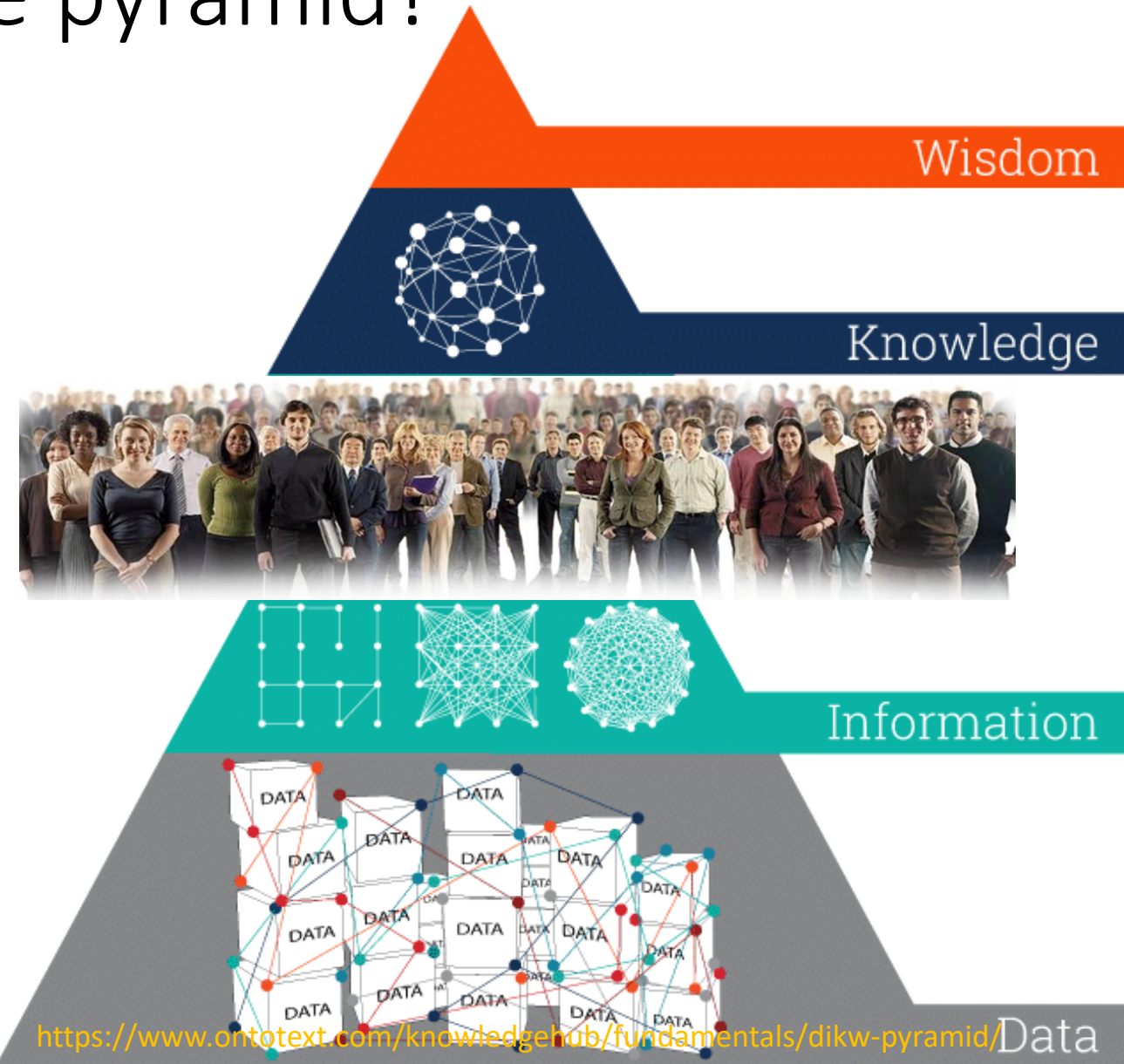


„Wisdom Infrastructure?“

Really?

What is wrong with the pyramid?

- There is a dissociation between data / information and knowledge / wisdom
- It takes (a village of) humans to make sense of information
- No purpose in data and information infrastructure



Opportunities of data sustainability

- Data
 - Analyze
- Information
 - Understand
- Knowledge
 - Solve problems
- Wisdom
 - Survive



Threats of data sustainability

- Data
 - Deluge
- Information
 - Misinformation
- Knowledge
 - Fake Knowledge / Fake Science
- Wisdom
 - Delusion



Summary

ANGLE	TIME	CONTEXT	HUMAN FACTOR	ORG-LEVEL	INSTITUTION	OPPORTUNITY	THREAT
Wisdom	,perpetual‘	embedded	exclusive	societal	?	survive	delusion
Knowledge	long-term	high	large	individual	Knowledge Infrastructure	solve problems	fake
Information	mid-term	medium	medium	functional	Library	understand	misinformation
Data	short-term	low	small	technical	Data Center	analyze	deluge

Possible Implications for Tactics

- Answer what is „knowledge infrastructure“?
 - Acknowledge that technology is not the key question – data and information infrastructures are purposeless
 - Transcend individual purpose („usage“) – ask about institutionalisation
 - Focus on social, societal aspects
- Connecting data to information and information to knowledge
 - e.g. Data-Literature-Linking, Science & Society

TIME	CONTEXT	HUMAN FACTOR	ORG-LEVEL
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short-term	low	small	technical

Possible Implications for Tactics

- Connect data centers to make libraries
- Connect libraries to make knowledge infrastructure
- Connect knowledge infrastructures to make ... (sense?)



Thank you