

Responsible research assessment requires open scholarly metadata

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Workshop on Open Citations and Open Scholarly Metadata 2020

September 9, 2020



Universiteit
Leiden
The Netherlands

David Shotton's case for open citations

Publishing: Open citations

[David Shotton](#)

16 October 2013

Make bibliographic citation data freely available and substantial benefits will flow, says David Shotton, director of the Open Citations Corpus.

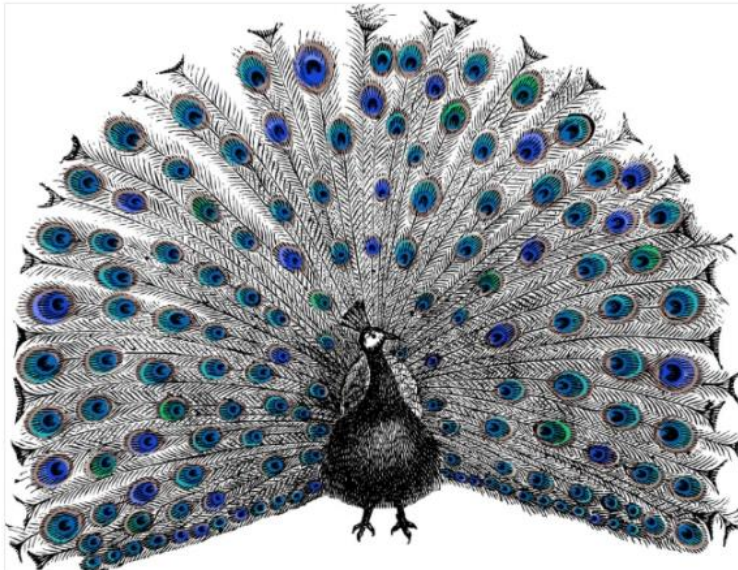


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Subject terms: [Publishing](#) • [Research management](#)



Problems of proprietary citation indexes:

- Expensive
- Access restrictions
- Reuse restrictions

“citation data now need to be recognized as a part of the commons – those works that are freely and legally available for sharing”

San Francisco Declaration on Research Assessment

San Francisco Declaration on Research Assessment



There is a pressing need to improve the ways in which the output of scientific research is evaluated by funding agencies, academic institutions, and other parties. To address this issue, a group of editors and publishers of scholarly journals met during the Annual Meeting of The American Society for Cell Biology (ASCB) in San Francisco, CA, on December 16, 2012. The group developed a set of recommendations, referred to as the San Francisco Declaration on Research Assessment. We invite interested parties across all scientific disciplines to indicate their support by adding their names to this Declaration.

The outputs from scientific research are many and varied, including: research articles reporting new knowledge, data, reagents, and software; intellectual property; and highly trained young scientists. Funding agencies, institutions that employ scientists, and scientists themselves, all have a desire, and need, to assess the quality and impact of scientific outputs. It is thus imperative that scientific output is measured accurately and evaluated wisely.

9. Whether a journal is open-access or subscription-based, remove all reuse limitations on reference lists in research articles and make them available under the Creative Commons Public Domain Dedication [10].

11. Be open and transparent by providing data and methods used to calculate all metrics.

Leiden Manifesto

Bibliometrics: The Leiden Manifesto for research metrics

[Diana Hicks](#), [Paul Wouters](#), [Ludo Waltman](#), [Sarah de Rijcke](#) & [Ismael Rafols](#)

22 April 2015

Use these ten principles to guide research evaluation, urge Diana Hicks, Paul Wouters and colleagues.

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Subject terms: [Careers](#) • [Research management](#) • [Publishing](#)



Ten principles:

1. Quantitative evaluation should support qualitative, expert assessment
4. Keep data collection and analytical processes open, transparent and simple
5. Allow those evaluated to verify data and analysis

Evaluative inquiry

LeidenMadtrics

HOME CONTRIBUTORS ABOUT 🔍

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 Laurens Hessels
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 Ad Prins
Consultant



Evaluative Inquiry III: Mixing methods for evaluating research

📅 August 21, 2020 • 📖 Science & Society • ⌚ 4 min read

Critiques on research metrics have produced an unhelpful divide between quantitative and qualitative research methods. In this blogpost, we explain why research evaluation can benefit from the strengths of both.

“We have used **bibliometric methodologies**, using Web of Science, Google Scholar and Microsoft Academic, to get insight into co-authorship relations, citation scores and visibility in journals ... we have used **interviews and focus group discussions** to get a more fine-grained understanding of the organizational context ... One method’s insights can, moreover, **corroborate or dispute** claims of another”

Qualitative
Contextualized
Subjective
Slow

From data to decisions

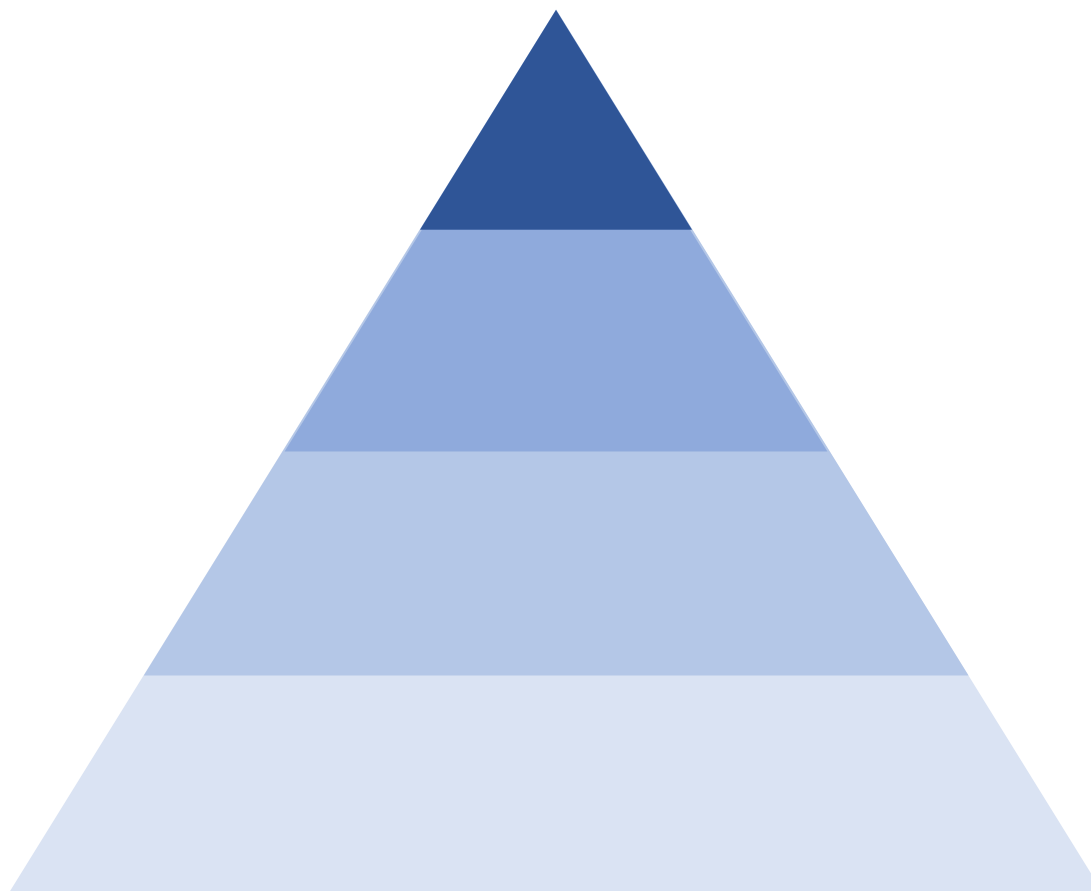
Quantitative
Reductionistic
Objective
Fast

Recommendations,
rankings

Panel discussions,
assessment reports

Curricula vitae,
interviews

Research activities
and outputs



Metrics, indicators

Charts,
visualizations

Lists, tables

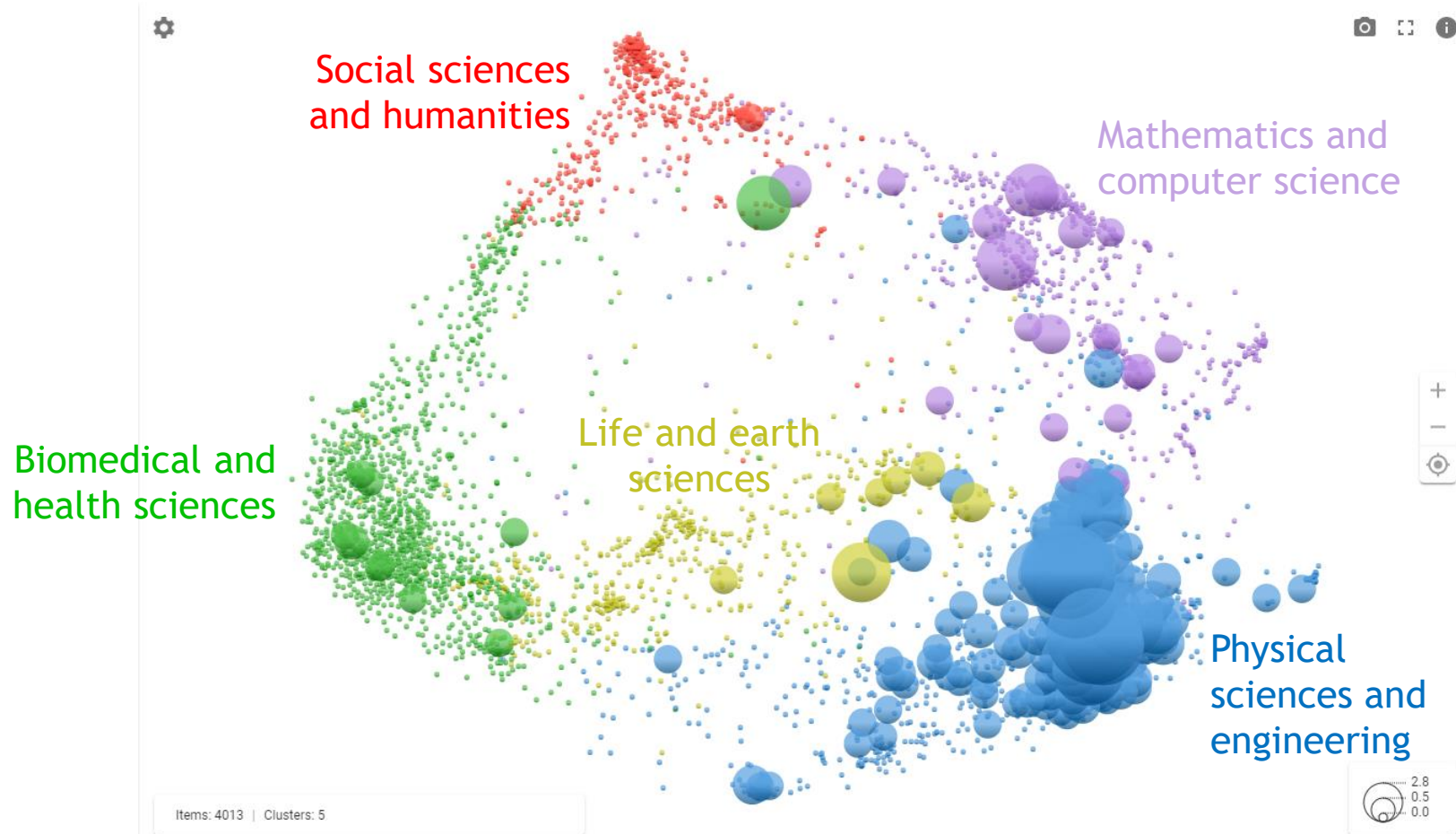
Research activities
and outputs

Research on light water reactors in South Korea: Metrics

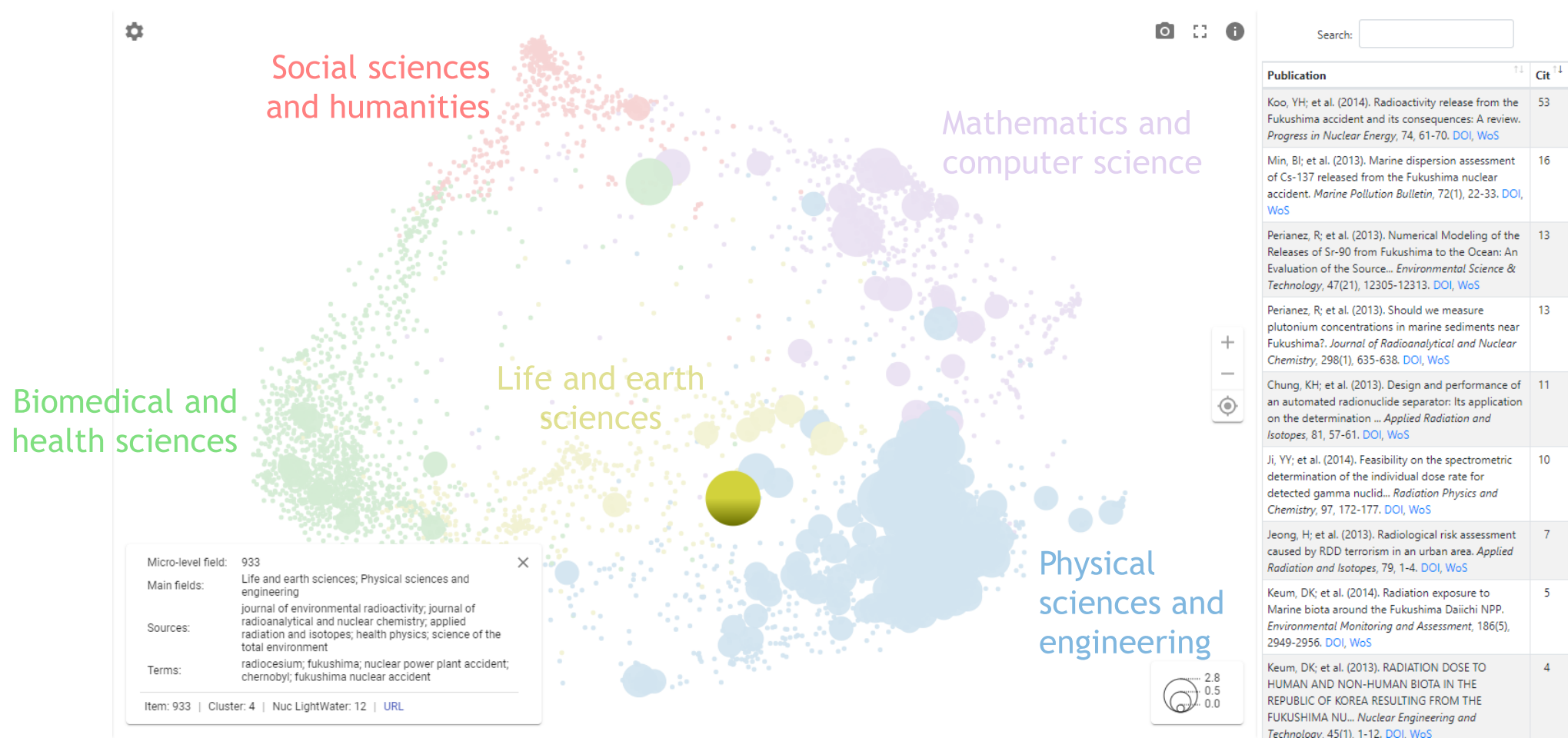
Number of publications resulting from projects on light water reactors
funded by the South-Korean government:

759

Research on light water reactors in South Korea: Visualizations



Research on light water reactors in South Korea: Lists



Research on light water reactors in South Korea: Research outputs

Outline

[Highlights](#)

[Abstract](#)

[Keywords](#)

1. Introduction

2. Release and transportation characteristics of fission pro...

3. Accident analysis

4. Consequences of the accident

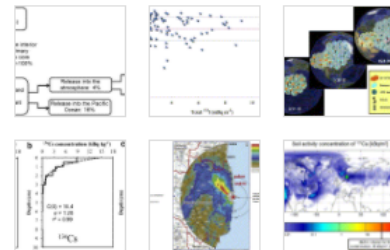
5. Conclusions

[Acknowledgments](#)

[References](#)

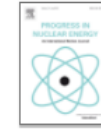
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Figures (6)



Progress in Nuclear Energy

Volume 74, July 2014, Pages 61-70



Review

Radioactivity release from the Fukushima accident and its consequences: A review

Yang-Hyun Koo , Yong-Sik Yang, Kun-Woo Song

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<https://doi.org/10.1016/j.pnucene.2014.02.013>

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Highlights

- Radioactivity release into the environment by the Fukushima accident is reviewed.
- Radioactivity distribution in Japan and around the world is reviewed.
- Impacts of the accident on public health, economy and energy policy are described.

Qualitative
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Subjective
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From data to decisions

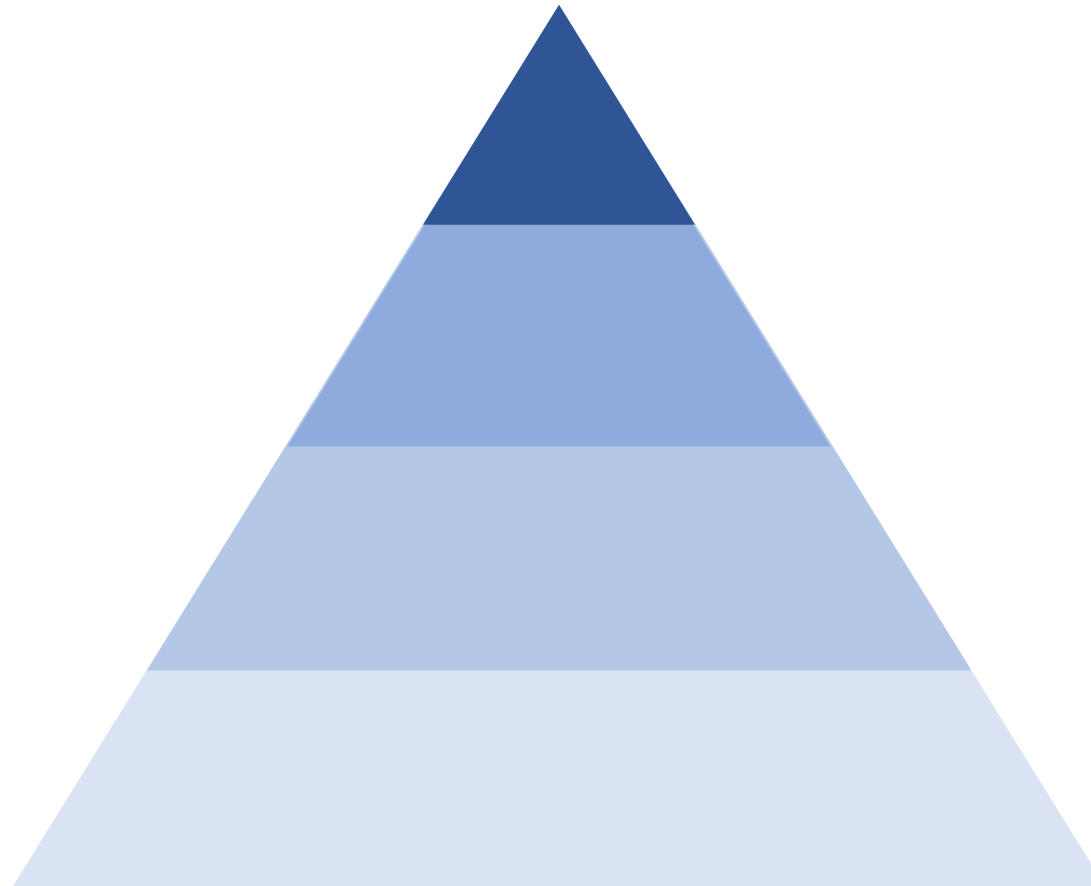
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Recommendations,
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Metrics, indicators

~~Charts,
visualizations~~

~~Lists, tables~~

~~Research activities
and outputs~~



Conclusions



Responsible research assessment combines qualitative and quantitative approaches



It should always be possible to dig deeper into the data and to see what is behind a certain number



This requires scholarly metadata to be open



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www.ludowaltman.nl



@LudoWaltman

