Problematic Citations

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Problematic Citation

• Citation of retracted literature
• Bibliographic ghosts
• Misrepresenting cited work
• Cherry picking
• Ignoring related work outside a clique
• Playing telephone with review papers
Citing retracted papers

A visual analytic study of retracted articles in scientific literature

FIG. 8. The distribution of the average citation counts of 1,775 retracted articles. (Color figure can be viewed in the online issue, which is available at wileyonlinelibrary.com.)
78 citations to a retracted clinical trial with faked data

Schneider & Yi in preparation, updating Fulton et al 2015
2700 citations of citations to clinical trial with faked data

Schneider & Yi in preparation, updating Fulton et al 2015
Bibliographic ghosts

• “no such article was ever published”
How citation distortions create unfounded authority: analysis of a citation network
| M3: Attributing causality | Suggests VSC says *video games cause obesity*.  
| | “*these advances in technology have led children to adopt a sedentary behavior, causing an increase in obesity*” [16]  
| | “*Videogames, more so than television, are the culprit for the negative physical and social outcomes*” [61]  |
| M4: Irrelevant / misleading quote | Describes things that VSC doesn’t find:  
| | “*relates to childhood obesity in American children (aged nine to twelve).*” [62]  
| | VSC doesn’t find any significance in 9-12 year old age group. |

**Misrepresentation of health research in exertion games literature**
Ignoring related work outside a clique

Fig. 1 Network visualization - authors. Each circle represents an author. The bigger the circle, the higher the number of publications. Each line represents a shared authorship. This graph shows that there are two main research groups active in this network. Authors with less than three publications were excluded.

Selective citation in the literature on swimming in chlorinated water and childhood asthma: a network analysis
Playing telephone with review papers

Understanding belief using citation networks
Problematic Citation

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What is required to address Problematic Citation?

- Attributes of cited work (retracted?)
- Attributes of citing work (exists?)
- Attributes of the topic & author networks (consistent or inconsistent?)
- Citation sentences (citances)
What is needed to address Problematic Citation?

- Citation of retracted literature
  - Attributes of cited work (retracted?)
- Bibliographic ghosts
  - Attributes of citing work (exists?)
- Misrepresenting cited work
  - Citing sentence(s)
  - Cited sentence(s)
  - Relationship between them
Problematic Citation

- Cherry picking
  - Attributes of the topic network (consistent on this?)
- Ignoring related work outside a clique
  - Attributes of the author network (consistent on this?)
- Playing telephone with review papers
  - Citations to review papers
  - Citations from review papers


