

Reproducible Science and Modern Scientific Software Development

13th eVITA Winter School in eScience sponsored by  **Norges forskningsråd**

Dr. Holms Hotel, Geilo, Norway

January 20-25, 2013

Summary

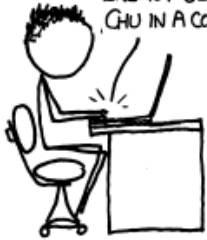
Dr. André R. Brodtkorb,
Research Scientist
SINTEF ICT, Dept. of Appl. Math.

WHERE CITATIONS COME FROM:

CITOGENESIS STEP #1:

THROUGH A CONVOLUTED PROCESS, A USER'S BRAIN GENERATES FACTS. THESE ARE TYPED INTO WIKIPEDIA.

THE "SCROLL LOCK" KEY WAS DESIGNED BY FUTURE ENERGY SECRETARY STEVEN CHU IN A COLLEGE PROJECT.



A RUSHED WRITER CHECKS WIKIPEDIA FOR A SUMMARY OF THEIR SUBJECT.

US ENERGY SECRETARY STEVEN CHU, (NOBEL PRIZEWINNER AND CREATOR OF THE UBIQUITOUS "SCROLL LOCK" KEY) TESTIFIED BEFORE CONGRESS TODAY...



STEP #2

SURPRISED READERS CHECK WIKIPEDIA, SEE THE CLAIM, AND FLAG IT FOR REVIEW. A PASSING EDITOR FINDS THE PIECE AND ADDS IT AS A CITATION.

GOOGLE IS YOUR FRIEND, PEOPLE.

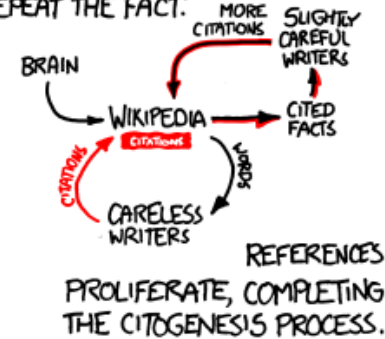
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STEP #3

STEP #4

NOW THAT OTHER WRITERS HAVE A REAL SOURCE, THEY REPEAT THE FACT.



XKCD, CC-BY-NC 2.5 [1]

[1] <http://xkcd.com/978/>

Bloggers Put Scientific Method To the Test

Posted by **Unknown Lamer** on Monday January 21, @08:10PM
from the like-mythbusters-but-with-science dept.



[ananyo](#) writes

"Scrounging chemicals and equipment in their spare time, a team of chemistry bloggers is trying to [replicate published protocols for making molecules](#). The researchers want to check how easy it is to repeat the recipes that scientists report in papers — and are inviting fellow chemists to join them. Blogger See Arr Oh, chemistry graduate student Matt Katcher from Princeton, New Jersey, and two bloggers called Organometallica and BRSM, have together launched [Blog Syn](#), in which they report their progress online. Among the frustrations that led the team to set up Blog Syn are claims that reactions yield products in greater amounts than seems reasonable, and scanty detail about specific conditions in which to run reactions. In some cases, reactions are reported which seem too good to be true — such as a 2009 paper which was corrected within 24 hours by web-sawy chemists live-blogging the experiment; an episode which partially inspired Blog Syn. According to chemist Peter Scott of the University of Warwick in Coventry, UK, synthetic chemists spend most of their time getting published reactions to work. That is the elephant in the room of synthetic chemistry."

<http://science.slashdot.org/story/13/01/22/009225/bloggers-put-scientific-method-to-the-test>

Male Scientists More Prone To Misconduct

Posted by **Soulskill** on Wednesday January 23, @05:26PM
from the it's-a-guy-thing dept.



sciencehabit writes

"Male scientists — especially at the upper echelons of the profession — are far more likely than women to commit misconduct. That's the bottom line of a new analysis by three microbiologists of wrongdoing in the life sciences in the United States. Ferric Fang of the University of Washington, Seattle; Joan Bennett of Rutgers University; and Arturo Casadevall of Albert Einstein College of Medicine combed through misconduct reports on 228 people released by the U.S. Office of Research Integrity (ORI) over the last 19 years. They then compared the gender balance — or imbalance, in this case — against the mix of male and female senior scientists and trainees to gauge whether misconduct was more prevalent among men. A remarkable 88% of faculty members who committed misconduct were men, or 63 out of 72 individuals. The number of women in that group was one-third of what one would expect based on female representation in the life sciences."

A review of the United States Office of Research Integrity annual reports identified 228 individuals who have committed misconduct, of which 94% involved fraud. [...] two-thirds of the individuals found to have committed misconduct were male

<http://science.slashdot.org/story/13/01/23/219235/male-scientists-more-prone-to-misconduct>

Summary of winter school

- I hope you have enjoyed yourself this week and that you
 - Made new contacts
 - Learned something new
 - Had a good time skiing and socializing
- Think about reproducible research when you get home:
Be methodical, be thorough, be honest in our research
- Do your duties as reviewers, editors, colleagues:
Encourage peers to think about reproducibility

- 2014 winter school: Do you have a good idea for a topic?
 - Let me know! Tell me about good lecturers and good subjects!
- Possible school topics:
 - Uncertainty quantification & statistics
 - Game theory
 - Signal processing
- Email with presentations and a questionnaire will be sent out
 - Please, please, help me by filling it out! Your comments are extremely valuable to improve the school!

Lecturers: Thank you!



Dr. Rasmus Benestad,
Met.no



Dr. Johan S. Seland
SINTEF ICT



Dr. Fernando Perez,
U.C. Berkeley

Participants: Thank you!

Andreas Amundsen, Rasmus Benestad, Petter Bjørstad, Mohammadmehdi Bozorgi, André R. Brodtkorb, Yiqi Deng, Annalisa Di Piazza, Rui Du, Ulf Ekström, Patrick Ettenhuber, Thomas L. Falch, Nikolay Fastovets, Bernt Galtrud, Arnt Grøver, Xiaoyu Han, Sindre Hilden, Hilde Kristine Hvidevold, Ida-Marie Høyvik, Stig Rune Jensen, Dan Jonsson, Janus Juul Eriksen, Michael Krætzschmar, Arne Morten Kvarving, Johannes Langguth, Nicolas Limare, Atle Loneland, Muhammad Muzzamil Luqman, Bjørn Magnus Mathisen, Christoph Moder, Ivar Ursin Nikolaisen, Laurent Oudre, Samira Pakdel, Fernando Perez, Ole-Andre Roli, Johan Simon Seland, Erik Smistad, Johannes Steiner, Martin Lilleeng Sætra, Morten Vassvik, Lyudmyla Vynnytska, Yang Min Wang, Peter Wind