RESPONSIBILITIES OF SCIENTISTS TO SOCIETY

Allison Towner University of Virginia

AAAS SURVEY (2015)

- Responsibilities internal to science (professional ethics)
 - Proper data management, academic integrity, proper treatment of live subjects
- Responsibilities external to science
 - Mitigating risks (e.g. mapping flu genome)
 - Participating in public policy
 - Communicating science to the public

Responsibility	Percentage response
Take steps to minimize anticipated risks associated with their work	95.8%
Consider the risks of adverse consequences associated with their work	95.6%
Report suspected misconduct they observe by scientists or engineers	94.1%
Explain their work to the public	93.7%
Serve in advisory roles in the public arena in their area of expertise	92%
Publicly disclose risks associated with their work	90.4%
Consider the potential of each research or development project to contribute to societal well-being	88.8%
Participate in public policy deliberations in their area of expertise	88.8%
Engage in public service activities	82.6%
Take steps so that their research, findings or products are not used inappropriately by others	82.4%

INTERNATIONAL SOURCES

- International Council for Science (ICSU)
 - Freedoms and responsibilities of scientists
- Japan Society for the Promotion of Science
 - Science as public trust
- Overall emphasis on the fact that the internal responsibilities of scientists to science itself are also responsibilities to society as a whole
- Public communication and public policy are always mentioned



SCREW REAL LIFE APPLICATIONS" WANT KIDS TO LEARN SCIENCE? PUT THIS IN EVERY TEXTBOOK:

You can ignore this book if you want.

Go ahead. Coast through class.

But one thing in life is certain:

Someday, someone will clone a dinosaur.

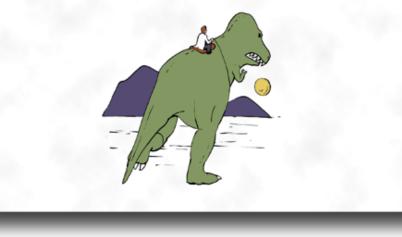
And that someone will be an expert in a million things you think are boring right now.

And if you don't study, and work, and think

One day you'll watch that person saddle up, put on a cowboy hat, and ride a T. Rex

From a monitor.

Until your boss asks why you're wasting company time.





THOUGHTS ON THIS COMIC?

- Responsibility to do good science responsibly
- Responsibility to do cutting-edge science? Who defines "cutting-edge?"
- Responsibility to represent science accurately
- Responsibility to inspire and encourage the next generation to study science
- Responsibility to "meet people where they are" with science communication

 this is a comic, not a journal article
- Responsibility to respect your audience when you are explaining your work or the need for your work

REFERENCES

- Ettinger, Joshua and Jessica Wyndham. "Investigating the Perceived Social Responsibilities of Scientists, Engineers, and Health Professionals," 01 April 2015. <u>http://www.aaas.org/news/investigating-perceived-socialresponsibilities-scientists-engineers-and-health-professionals</u>, accessed 4/30/16.
- International Council for Science. "Freedom, Responsibility and Universality of Science," 2008. <u>http://www.icsu.org/publications/cfrs/freedom-responsibilitybooklet/ICSU-CFRS-booklet.pdf</u>, accessed 4/30/16.
- Japan Society for the Promotion of Science. "For the Sound Development of Science: the Attitude of a Conscientious Scientist," November 2014. <u>https://www.jsps.go.jp/j-kousei/data/rinri_e.pdf</u>, accessed 4/30/16.
- Weinersmith, Zach. "Science," Saturday Morning Breakfast Cereal, 15 January 2011. <u>http://www.smbc-comics.com/?id=2125</u>, accessed 4/18/16.