

Fact, Fiction, and Sensationalism

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“That dire warning did not come from the Japanese officials, it came from an American official, so the credibility between what the Japanese government is saying and what is really happening seems to be growing.”¹

So spoke CNN’s Anderson Cooper as he described the events happening at the Fukushima Daiichi Nuclear Plant. On March 16, 2011, 7.5 tons of water were dropped by helicopter in an attempt to cool the Unit 3 Reactor, which had exploded just three days before due to a buildup of hydrogen gas.² The American news media was concerned about what they called “an extremely dangerous situation” at the site, noting that the spent fuel rods were not covered by water and a cloud of radioactive steam surrounded the reactor.³

In just a few minutes of airtime, the media managed to both report the news as well as introduce a flurry of ideas and questions into the viewer’s mind. Despite the emphasis on the “dire situation” at the Fukushima Daiichi, the anchors devoted little time to the context of the impact of the disaster. Even as the potential for timely reporting and accurate research was continuously improving, the media was unable to convey the depth needed to understand such a disaster.

Thus, media reporting of the Fukushima Daiichi nuclear disaster was characterized by sensationalistic flares, misunderstandings, and inaccuracies, conditions that caused the already scrutinized field of nuclear energy to be even more closely examined. Social media further propagated fear, with inaccurate blog posts being cited by major news sources and reputable websites. Despite the flow of misinformation, news organizations such as the *New York Times* were able to utilize technology through interactive graphics and diagrams to inform and instruct readers and viewers.

Although traditional media sources were informative, television sources were much less credible. The coverage of the nuclear crisis provided by television stations CBS and CNN appeared to be fairly normal. Video footage provided by the networks gave a misleading image of the situation in Japan, as the anchors gave status updates on the reactors with background video images of a burning natural gas tank refinery in Chiba.³ While the refinery was set ablaze due to the earthquake, its location of several hundred miles from the

Fukushima Daiichi was largely unrelated to the nuclear disaster. The motives for the stations must have rested with the sensationalist image the burning refinery provided, a stark contrast from the nuclear reactors.

The desire for sensationalism was made even more apparent as the media focused on radiation risks. News sources such as the Associated Press reported that amounts of radioactive iodine in drinking water in Fukushima was miniscule and posed no health threat.⁴ The media's understanding of radiation dosage reflected the "threshold dose" notion from decades ago, when it was not yet realized that radioactivity had an incubation period of up to forty years.⁵ Modern scientists acknowledge the impact of all amounts of radiation as a risk for cancer, not only large, singular dosages.⁶

In an attempt to soothe the public, the media reported that potassium iodide pills were being distributed in Japan.⁷ Although the distribution of the pills was delayed by the Japanese government⁸, the actual effect of potassium iodide is disputable. The pills work by filling the thyroid with safe iodine isotopes so the radioactive iodine-131 cannot be absorbed.⁹ However, iodine is only one component of radioactive fission products, and there is no pill able to prevent the body from absorbing radioisotopes cesium-137 and strontium-90, both of which were released with the eruption of the Fukushima plant.¹⁰

Along with the need to broadcast sensationalist stories came the virtual lack of accurate, fully-explained scientific information. Despite the media coverage about the effects of radiation, the nature of the radioisotopes was portrayed inaccurately by the news media. One attempt to explain the role of cesium-137 was undertaken by scientist Bill Nye "The Science Guy" on CNN. He stated that cesium was used to control the nuclear fission of uranium, and that the absence of the isotope caused reactors to overheat.¹¹ In reality, cesium is one of the radioactive products created by nuclear fission, whereas boron is the element controlling fission.¹² There was no further statement from Nye to correct his error.

Unlike the notable nuclear disasters from years past, Fukushima saw the rise of the Internet as a major source of current events. This phenomenon proved to have both positive and negative impacts for news quality. Social media proved to be a challenge to uncovering the truth in a whirlwind of rumors. The primary test came with Josef Oehmen's viral blog post, in which he identified himself as an "MIT research scientist" and wrote about his reaction towards the events at Fukushima.¹³ In the blog post, he stated that "there was and will not be

any significant release of radioactivity from the damaged Japanese reactors,” a statement proven false within several days of his posting.¹⁴ Oehman’s essay was quickly republished by several publications, including Business Insider, Discover Magazine, and the UK Telegraph.¹⁵ One reposting of his post was then subsequently shared on social media sites over 35,000 times.¹⁶

This post served as another example of the misleading media. A great deal of Oehmen’s influence stemmed from his identification as a research scientist at the Massachusetts Institute of Technology, but he worked in the business management sector, not the nuclear engineering department.¹⁷ Despite his criticism of the inaccuracies in news media, he was one of the many contributors of errors.

On the positive side, many American media organizations such as *The Wall Street Journal*, *The Washington Post*, and National Public Radio used creative approaches to reporting by providing informational graphics, videos, in addition to written information.¹⁸ *The New York Times* proved to be exceptional by creating a nonlinear narrative of the Fukushima events. Providing interactive diagrams alongside in-depth articles helped readers to understand less discussed topics such as the International Nuclear and Radiological Event Scale, the levels of radiation in soil and water, and the diagrams of evacuation zones in Japan.¹⁹ The effort put forth by the *Times* contributed greatly to the greater understanding of nuclear power, a field shrouded in mystery despite its contribution of 20% of electricity in the United States.²⁰

The media coverage of Fukushima not only stirred questions about the situation in Japan, but also about the status of nuclear power worldwide. While many people began to see the potential danger of the energy source, others, such as Nuclear Regulatory Commissioner Kristine Svinicki, remained both realistic and pragmatic in her analysis after the Japanese disaster. In a statement to the media, she said: “Some may characterize that our faith in this technology is shaken. Nuclear safety is not and cannot be a matter of faith. It must be a matter of fact.”²¹

Citations

1. "CNN Anderson Cooper Japan 9.0 earthquake Tsunami Reactors FukuShima." *YouTube*. 16 Mar. 2011. Web. 27 Feb. 2012.
2. "Second explosion rocks Fukushima Daiichi." *World Nuclear News*. 14 Mar. 2011. Web. 27 Feb. 2012.
3. Yurman, Dan. "Social media, Old Media and Fukushima." *The Energy Collective*. 23 Mar. 2011. Web. 27 Feb. 2012.
4. Olsen, Kelly and Joe McDonald. "Radiation discovery fans food fears in Japan." *The Salt Lake Tribune*. 20 Mar. 2011. Web. 27 Feb. 2012.
5. Grossman, Karl. "Downplaying deadly dangers in Japan and at home." *Extra! The Magazine of FAIR*. May 2011. Web. 27 Feb. 2012.
6. Ibid.
7. "Japan quake live blog." *CNN*. 21 Mar. 2011. Web. 27 Feb. 2012.
8. Adams, Mike. "Japanese government admits potassium iodide pills should have been distributed earlier." *Natural News*. 21 Mar. 2011. Web. 27 Feb. 2012.
9. "Downplaying deadly dangers in Japan and at home." *Extra! The Magazine of FAIR*. May 2011. Web. 27 Feb. 2012.
10. Ibid.
11. Ibid.
12. Ibid.
13. Elliott, Justin. "Debunking a viral blog post on the nuke threat." *Salon*. 15 Mar. 2011. Web. 27 Feb. 2012.
14. Ibid.
15. Ibid.
16. Ibid.
17. Ibid.
18. Friedman, Sharon. "Three Mile Island, Chernobyl, and Fukushima: An analysis of traditional and new media coverage of nuclear accidents and radiation." *Bulletin of the Atomic Scientists*. (2011): 55-65. Web. 27 Feb. 2012.
19. Ibid.
20. "Social media, Old Media and Fukushima." *The Energy Collective*. 23 Mar. 2011. Web. 27 Feb. 2012.
21. Wald, Matthew. "No Urgent Changes Seen for U.S. Nuclear Plants." *The New York Times*. 21 Mar. 2011. Web. 27 Feb. 2012.