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# The Great Earthquake That Wasn't

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## ABSTRACT

Fact-or-Faux addresses misinformation and science media literacy. Here, I examine the case of an entrepreneur who predicted a devastating earthquake in New Madrid, Missouri, a repeat of the largest earthquake in U.S. history. On the designated day, schools were closed, the National Guard was nearby, and 200 news reporters were ready. But nothing happened. How did the misinformation spiral out of control?

**Keywords:** Misinformation; New Madrid; earthquake; expertise; credentials; consensus

The seismometer (Figure 1) sits in the local historical museum in a small town in southeast Missouri, part of an exhibit that tells the story of one the strongest earthquakes in U.S. history: the New Madrid Earthquake of 1811–1812. Over 2 months, there were 3 major earthquakes that reportedly sent the Mississippi River flowing backwards and rattled

towers hundreds of miles away. Minor earthquakes—most too small to be noticed—still occur, along a fault line where risks of major seismic activity rival those of California. The exhibit's seismometer is a modest but ever-present reminder of the local geology (Figure 2).

So, what would be your response if someone predicted another major

earthquake, on a day when there would be excess tidal loading, caused by lunar and solar gravitational alignments? Fear, caution, amusement? Leave town on the day, or stay to sell T-shirts or “quakeburgers”? What would inform your decisions on this occasion?

Here is a game-like activity for students to test their skill at judging fact



FIGURE 1

**The earthquake exhibit at the local historical museum in New Madrid, Missouri, reminding residents of the great quakes there in 1811–1812 (courtesy of Jeff Grunwald).**



from faux. They record their impressions as the story unfolds and then review their own decisions in retrospect and discuss what media reports were the most important in conveying the trustworthy scientific information, and why.

### The classroom scenario

The scene is as described above. Students are to imagine themselves as a resident of New Madrid (pronounced MAD-rid) or a nearby community. They may choose to be a parent, a school principal, a mayor, a business owner, or themselves. The news items appear chronologically below. The task at each stage is to take note of what you would do, based on which bits of information about this possibly devastating earthquake. Would you stock water, food, and first aid supplies in your cellar? Would you take out expensive earthquake insurance? Would you dismiss it all as a joke? Would you cancel school on the day? Would you call out the National Guard? Would you plan a “Shake, Rattle and Roll” party on

Main Street? Or would you just wait for (or seek out) more information? And, if so, whom would you trust?

The media messages are presented in stepwise fashion, so that as an imagined participant, we can experience the episode in context, unfolding gradually. Note, too, whether your decisions change as the available information grows. (Save discussion for afterwards.)

### The unfolding news

**November, 1989.** The *Memphis Commercial Appeal* reports on a lecture by Iben Browning, who has analyzed the geological conditions of the famous 1811–1812 earthquakes and finds that similar conditions will occur again next year, on December 3, 1990. Browning is a business consultant on meteorological and geological issues and publishes a newsletter on these topics. His reasoning is based on modeling the geological forces of excess tidal loading which will increase the likelihood of an earthquake at a similar scale. He repeats his projection a few weeks later in an invited speech at the Missouri Governor’s

Conference on Agriculture. *What is your response at this stage?*

As a measure of his credibility, Dr. Browning claims to have correctly projected the earthquake in Loma Prieta, California, earlier this year, and also the devastating eruption of the Mount St. Helens volcano in Washington in 1980. *Does this information alter your view?*

**June 26, 1990.** Dr. Browning has continued his lecture circuit and now the *St. Louis Post Dispatch* has begun to cover the story. Today, it publishes a map of the seven global locations implicated in Browning’s projections.

**July 21.** A *Post-Dispatch* headline reports, “Quake Prediction Taken Seriously.” The article cites David Stewart, Director of the Earthquake Research Center at Southeast Missouri State University, who has vouched for Browning’s expertise to his colleagues. In a separate comment he said, “Here’s a man who verifiably has hit several home runs, and he’s up to bat ... you can’t ignore the batting record.” *Status update?*

**August 5.** The Office of Emergency Management in Springfield-Greene

FIGURE 2

**The hazard level of the New Madrid seismic zone rivals that of California (USGS).**

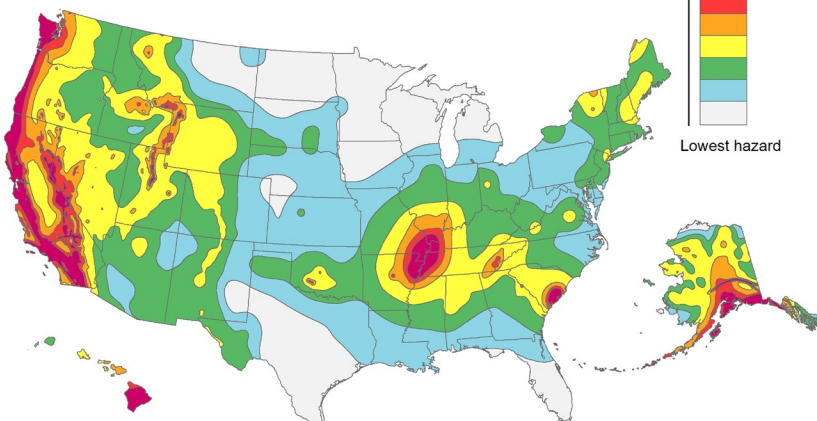


FIGURE 3

## Advertisement for a videotape by Iben Browning, predicting the earthquake-that-wasn't in 1990.

# A Major Earthquake

## has been projected by Dr. Iben Browning to strike this area on December 3, 1990...

**Should you and your family prepare...now?**  
This exclusive video interview with Dr. Browning can help you decide.

**Dr.** Iben Browning is a remarkable man. His track record of documented projections related to geological activities is truly incredible. These include the eruption of Mount St. Helens, the devastating Novado del Ruiz volcano in Colombia and, most recently, the 1989 earthquake in San Francisco. His accuracy is of great importance to you personally. *Dr. Browning is now projecting a major earthquake on the New Madrid fault within 24 hours of December 3, 1990.*

**One Eye Opening Video Tape**  
You may not have heard of Dr. Browning until recently. This is because he shuns the media and rarely grants interviews. However, earlier this year in an interview recorded on the announcement of his retirement at age 73, Dr. Browning sat for over an hour and a half of probing questions. He did so because he wanted to leave a permanent record for posterity. And, because he felt it important that Americans prepare now for the challenges just ahead.

It was in this interview that Dr. Browning made his detailed projection of the December 3, 1990 New Madrid earthquake. This is the same exclusive interview that has resulted in extensive coverage in regional and national news media. This is the same interview which led both the Arkansas and the Missouri National Guards to order earthquake drills for the period around December 3, 1990.

**How To Obtain Your Video**  
For a very limited time only, a 30-minute excerpted version of Dr. Browning's interview is available for \$39. The video contains all the material directly related to his track record in geological forecasting, and his December 3, 1990 projection. If you live anywhere near the New Madrid fault, you should seriously consider ordering a copy.

Or, if you prefer, you may purchase the complete 100 minute interview for \$99. Thousands have been sold at that price. Either video comes with a report recapping his methodology, a list of other important "trigger" dates between now and 1993, and specific ways you can prepare for a major earthquake.

Should you take Dr. Browning's projection seriously? Should you and your family take steps now to prepare? *Order your tape today and decide for yourself.*

To charge your video on Mastercard or Visa, call 1-800-528-0559. Or, return the coupon below with your check made payable to: Research Publications.

Because much of this material is time-dated, this offer ends November 15, 1990. Don't miss out on this rare opportunity to secure your personal copy of this important video. *Act Today.*

**Here's How To Order**  
To order your copy of the videotaped interview with Dr. Iben Browning as well as the written report which accompanies it and which contains additional details on his projections as well as information on how to prepare for a major earthquake...

**Call 1-800-528-0559**  
(Operators on duty 7am - 8pm CST. Please try again if lines are busy.)

**You have two options:**

1. Purchase the 30-minute video with Dr. Browning which fully describes how he projects geological events, as well as specific details on the December 3, 1990 earthquake. *30-Minute Video & Report: \$39.*
2. Purchase the unabridged 100-minute version. In addition to details on the earthquake, it contains a wide range of important information on long-term weather patterns, developing economic threats and more. *100-Minute Video & Report: \$99.*

Or, mail to: Research Publications  
P.O. Box 84900, Phoenix, AZ 85071. 105

County, Missouri, notes that Browning has "been correct on so many things. I think that everybody ought to take him seriously."

**September 9.** The Superintendent of the New Madrid County Central School District announces that schools will be closed on December 3, still months away. "The problem with schools," he says, "is it's not what's true so much as it is what's perceived to be true."

**September 26.** Southeast Missouri experiences an earthquake: enough to rattle dishware—and the sense of complacency. About 200 minor quakes occur

annually in the region, most too small to notice. Various government agencies have been arguing for years that residents should be prepared for any major quake, although the timing cannot be predicted.

**September 28.** Full-page ads appear in the local newspapers selling a 1.5-hour videotape interview of Iben Browning. They sell for \$99 each (or \$39 for a 3-minute excerpt) (Figure 3).

**September 29.** The Director of the Missouri Department of Natural Resources releases a statement that, contrary to Browning, "the probability of a

significant quake occurring on Dec. 3 is not greater than any other day."

**Early October.** Browning is interviewed on ABC's *Good Morning America*. Other TV talk shows soon feature discussion of a projected earthquake in New Madrid.

**October 18.** The United States Geological Survey (USGS) responds to public concerns and issues a report that Browning's geological model is scientifically unsound, and that his "predictions" of earlier events are so vague as to be meaningless, and thus were not validated.

**October 21.** Stewart defends Browning. Meanwhile, William Allen, science reporter for the *Post-Dispatch* has done further digging. He now reports that 15 years earlier Stewart lost his previous position at the University of North Carolina for inviting a psychic to speak on earthquake predictions and endorsing her approach as "valid and valuable."

**Mid-November.** The National Earthquake Information Service (part of the USGS) is fielding 100 calls a day related to the prediction. The St. Louis County emergency management office has been similarly swamped with inquiries.

**Late November.** Country music singer Lou Hobbs releases his song, "Living on the New Madrid Fault Line": "Lately I feel a little nervous about my section of the land of the free, / living on the New Madrid fault line, something's shakin', Lord, I hope it's just me." Over the next few days he is invited to sing it on *Good Morning America* and dozens of other television and radio shows. [You can hear it on YouTube: <https://www.youtube.com/watch?v=uzM8SXqpsks>] (Figure 4).

**December 3, 1990.** Earthquake Day! New Madrid. Some 200 reporters from around the world, and their vans with satellite antennae all parked in a cluster, are ready to report events as they happen



FIGURE 4

## Lou Hobbs singing “Living on the New Madrid Fault Line” (YouTube).



(see opening image). (The town’s population is a mere 3,000.) Schools are closed here, and elsewhere—although the girl’s volleyball game is going ahead, as scheduled. Residents have invested \$22 million in earthquake insurance. The National Guard is continuing a sample “earthquake preparedness” drill nearby. In town, you can buy your “I survived the earthquake” t-shirt, or a hamburger with a torn fault line across it. People are gathered, chatting, and waiting. And waiting and partying. No earthquake. The experts at the USGS were right, it turns out. All that hype for nothing. Ultimately, all the possible responses mentioned at the outset did occur. But only by the end, perhaps, was it clear how important it was to respect the scientific consensus, often missing in the various reports. For a fuller description of the event, and the view 25 years later, see the online account by Thomas Grounley (2015) or the USGS post-event analysis (Spence, et al., 1993).

### Debriefing

Merely encountering the eventual outcome allows students to measure their personal responses along the way. That is a lesson in itself. Extensive discussion has been mindfully postponed, here, so that students focus chiefly on viewing

and reconsidering their responses *in the context of the outcome*. They can compare “during” and “after.” Now is the time to reckon with the verdict of hindsight. What important clues may have been overlooked along the way? How might we envision an ideal response, using the benefit of retrospect? Not every class will reach the same conclusions, but here is a sketch of some possible take-home lessons:

- How did Iben Browning’s spurious claim spiral out of control? What *factors fostered misleading beliefs*?
  - Who *withheld judgment* at first, or wanted to *seek more information*? Where might you have gone to seek a reliable scientific perspective (using today’s technology, perhaps)?
  - Iben Browning was not an *expert*. He did not have appropriate *credentials*. His claims were *presented outside the scientific literature*. Thus, they were not even worthy of being entertained by an ordinary (non-expert) citizen. (See [Fact or Faux, November/December 2024](#)).
  - Browning’s claims may have seemed plausible, appealing to the cause and effect of physical forces. But *plausibility is not enough* ([Fact or Faux, May/June 2025](#)). Significant claims, especially incredible ones, need to be vetted by other experts, and a consensus developed. Nor should one be cowed by jargon of complex concepts.
  - David Stewart was consulted, in a journalistic tradition, as an “independent source.” But science demands more. Stewart’s own expertise mattered, too, and it had not been fully checked at first. Even when two isolated scientific experts may agree, however, *the appropriate benchmark is the consensus of the relevant experts*—as reflected, here, in the views of the USGS.
  - Browning’s earlier predictions—a factor in his alleged
- credibility—were unfounded. Yet at first, they were reported uncritically. Once traced, they proved to be without merit. Failure of *due diligence in checking sources and second-hand claims* can threaten effective science communication (See [Fact or Faux, January/February 2025](#)).
- The coverage on national television was largely on informal “talk” shows. One should recognize that such programs seek to both inform and entertain. One should be wary if the programs have not explicitly fact-checked any extraordinary scientific claim. We should expect them to be *subjected to (and survive) the scrutiny of alternate or critical expert assessment*.
  - The USGS’s reluctance to overtly refute Browning’s claims at the very outset may be seen by some as a failure of public science communication. Yet their decision not to engage with pseudoscience was itself a potent indicator. When they did finally address the issue, their *expert consensus* (from a respected scientific institution, with a long and broad track record) should have been definitive for public policy ([Fact or Faux, July/August 2024](#)).
  - The Precautionary Principle can be an effective policy tool in cases of uncertainty. However, in this case the *scientific consensus* was clear. Calling out the National Guard and closing schools was ill-informed public policy, and may have contributed to fostering undue public anxiety and needless expense. Public agencies that distributed standard earthquake preparedness kits without disclaimers about Browning’s illegitimate prediction implicitly gave credence to them, validating any unschooled sense of impending danger.
  - *Fear* was a significant factor. The claims played on an *inflammatory*

*emotion*. When such emotions swell, our discernment can falter. So one's demand for evidence should (counterintuitively, perhaps) be on high alert. One may well want to escalate the normal standards for justifying alarming conclusions.

- The *commercial dimension* might have been another clue. Sensationalism sells. But why should a citizen pay for a video on a matter of public safety? This was another indication that the messaging was occurring *outside the realm of professional experts*.
- The level of community concern was sustained largely by *hearsay*. It matters what people share with others. Individuals need to take personal responsibility in what they pass along.
- Ultimately (in retrospect), whose claims were *trustworthy*, whose were not, *and why*? How can this analysis inform our response in future episodes?

In summary, for those with skills in interpreting science and the media, there were plentiful clues that Browning's prediction was spurious. Might that underscore the importance of science media literacy? In public discourse, a "free market" approach to scientific claims ("let the reader decide") needs to be balanced with a sense of regulating adverse and irresponsible misinformation, contrary to the public interest.

Ultimately, Iben Browning's claims had no more merit than a doomsayer on the street corner portending the imminent end of the world. All claims to science are not necessarily science. Miscommunication thrived on hearsay in this episode. Everyone needs to be careful about what they share with others—and that includes journalists and TV personalities. Separating fact from faux is a joint endeavor.

A prepared presentation of this activity (in both PPT and PDF formats) is available at: <http://shipseducation.net/misinfo/earthquake1990.htm>

#### DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

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