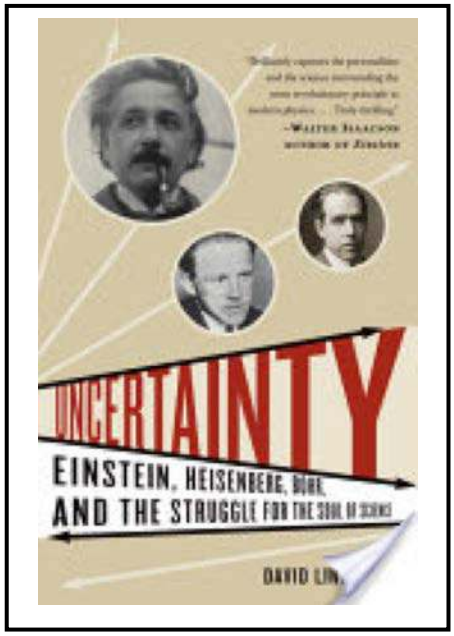
Book Review

December 2015

Uncertainty, Einstein, Heisenberg, Bohr and the Struggle for the Soul of Science,

David Lindley, Paperback, First Anchor Book Edition, a Division of Random House, 257 pages, 2008.

Summary



A seemingly unrelated book relative to planning and designing small cities and towns; however, not so fast. The "uncertainty principle" presents a concept of universal usefulness. As noted in the review by Scientific American, "one can extract one bit of information only at the price of losing another."

Like "Wicked Problems" discussed in *CharacterTowns.org* [October 2015], the dynamic nature of many situations should give one pause when mucking around with data and information; especially social science data that involves interviewing people and organizations. Measurement, in and of itself, as with the collection of data, can change the nature of the problem or the initial question…talk about a moving target.

Questions asked have consequences. Just the question sparks a thought in the recipient that may alter their ideas about the issue at hand. Another issue is that collecting certain kinds of data pre-supposes the answer. Heisenberg's "uncertainty principle" demonstrates this point in a deeply scientific way.

The book is very readable to the non-scientist. A great way to learn a little about physics while translating an approach in one discipline, physics, to another discipline, the social science of town planning. Primary data collection can change the nature of the variable being examined.

Published Reviews

Scientific American

Uncertainty: Einstein, Heisenberg, Bohr, And The Struggle For The Soul Of Science
by David Lindley
Reviewed May 20, 2007; Hardback published February 20th 2007 by Doubleday.
Lindley, an astrophysicist-turned-writer, charts the course of Werner Heisenberg's uncertainty principle. The culmination of Heisenberg's equally perplexing quantum theory, the uncertainty principle posited that in many physical measurements, one can extract one bit of information only at the price of losing another.
http://www.scientificamerican.com/

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New York Times Book Reviews

Einstein Was Uncertain About Uncertainty. Can You Understand It? Certainly.

Hardcopy, reviewed February 12, 2007 By JANET MASLIN

David Lindley's book on Werner Heisenberg's uncertainty principle provides a useful précis of the mind-blowing progress of physics in the early 20th century.

http://topics.nytimes.com/top/features/books/bookreviews/index.html?s=newest&query=Uncertainty+einstein&match=all&submit.x=0&submit.y=0&submit=Search

Amazon.com and Google Books

Werner Heisenberg's "uncertainty principle" challenged centuries of scientific understanding, placed him in direct opposition to Albert Einstein, and put Niels Bohr in the middle of one of the most heated debates in scientific history.

http://www.amazon.com/Uncertainty-Einstein-Heisenberg-Struggle-Science/dp/1400079969

https://books.google.com/books/about/Uncertainty.html?id=4eOcC13-2hwC&hl=en

YouTube: No YouTube with the author was found. Please advise if you find one.

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