

Unit 3 Pre-Class Warm-up

Joanna Yu, Tuesday 4pm, Fall 2018

1. Schoenmakers and Duysters are particularly interested in radical inventions. Explain what their conceptual definition is and how it is related to their operational definition.

Their conceptual definition is that radical inventions should be a rare phenomenon and serve as a basis for many successive inventions. Their operational definition of a radical invention is that the patent must be cited many times and the number of citations must be distinctly different from the number of citations for nonradical inventions.

2. In your opinion, does the author's operational definition of radical invention have validity? (does it have face validity? construct validity?)

I feel the author's operational definition has face validity but construct validity seems weak. For face validity, operationalizing the concept by looking at the number of forward citations associated with a patent could help see the importance of the patent. But the author's definition of radical invention may not be valid. The author takes a simplistic approach to identifying which inventions are considered radical. An invention is considered either radical or not radical. But there may be different degrees of radicalness or it can even be a spectrum.

3. If you believe there is a discrepancy between the author's operational definition of radical invention and the intended concept, how could this affect their conclusions? What factors, other than whether an invention is radical, could be driving their results?

If the operational definition of radical invention is incorrect, the whole analysis would not lead to the intended result and conclusion would be false. The independent variable used could also drive their results since that's what their analysis is based on.

4. In what other ways could you operationalize the concept of radical invention?

In addition to patent citations, I could also operationalize the concept by looking at how many articles and research papers cite that particular invention. If it's a revolutionary breakthrough, there should be a lot of citations.