

# Theory-Research Exchange (T-Rex) Project

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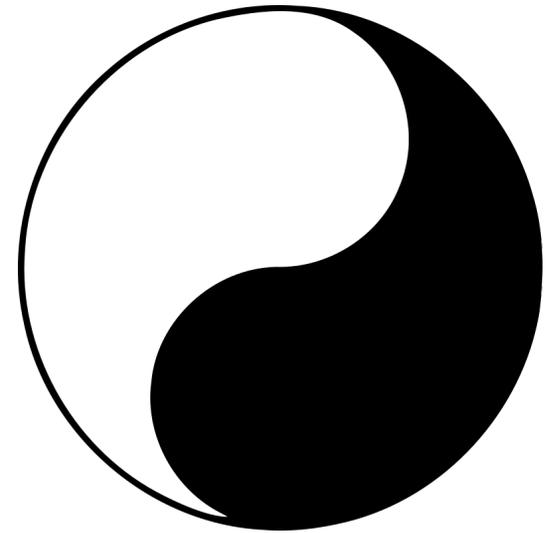
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# Motivation

- Request to update an earlier article on reviewing
  - Webster, J., & Watson, R. T. (2002). Analyzing the past to prepare for the future: writing a literature review. *MIS Quarterly*
  - Watson, R. T., & Webster, J. (2020). Analyzing the past to prepare for the future: Writing a literature review A roadmap for release 2.0. *Journal of Decision Systems*.
- Start-up times for researchers are lengthening
- Recognition that causal models are the core of knowledge

# Yin & Yang

- Yin
  - Analyzing the past
  - T-Rex project
- Yang
  - Preparing for the future
  - How do scholars develop theoretical insights?
    - Interview analysis



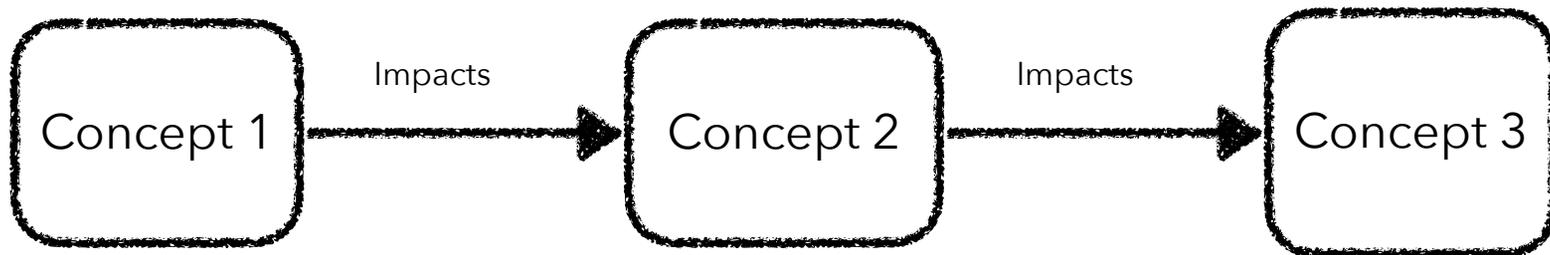
# The growing burden of knowledge

- Intellectual progress has created a mountain of knowledge to be mastered
- The average age at which great scientists and inventors produce their most important work rose by six years over the course of the 20th century
  - Greater early-life investment in education
  - Important thinkers begin their careers later
  - They are no more productive later in life
- Elongated education shortens the working lives of great scientists and inventors

**"Causal explanations, not dry facts, make up the  
bulk of our knowledge"**

*- Judea Pearl & Dana Mackenzie, "The Book of Why"*

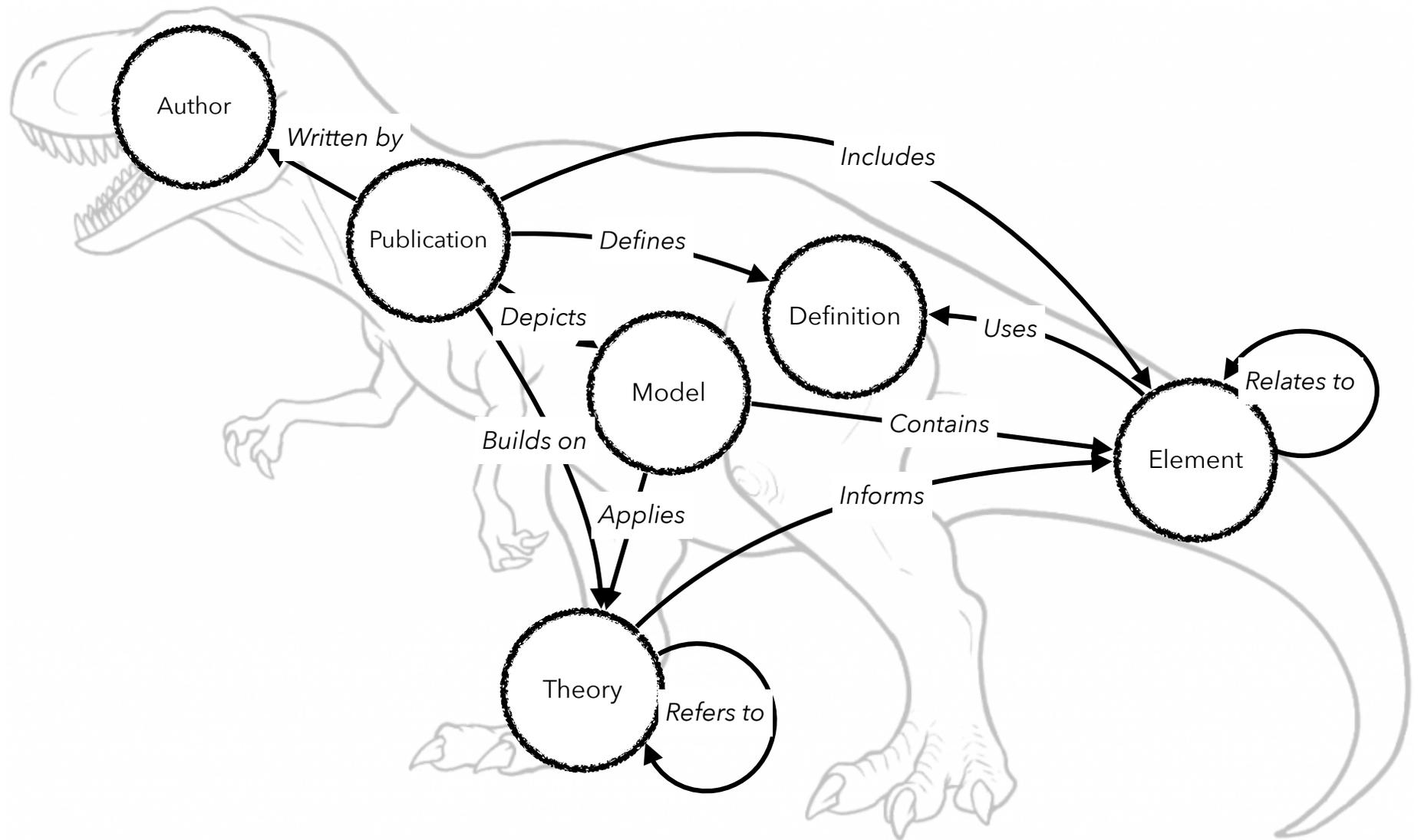
# A causal explanation is a graph



# Phase 1

- A researcher coding causal models is the scarce resource
- Code the core of the parts because the value is in achieving the whole
  - In a database, one transaction is useful as a record, but the entire set of records gives us an understanding of the nature of a business
- Get to the whole on the shortest path to get to the greatest value fastest
  - Fill in the 'nice to have' later based on researcher feedback

# T-Rex graph database model



# Process

