



Indicator Ontologies Summary

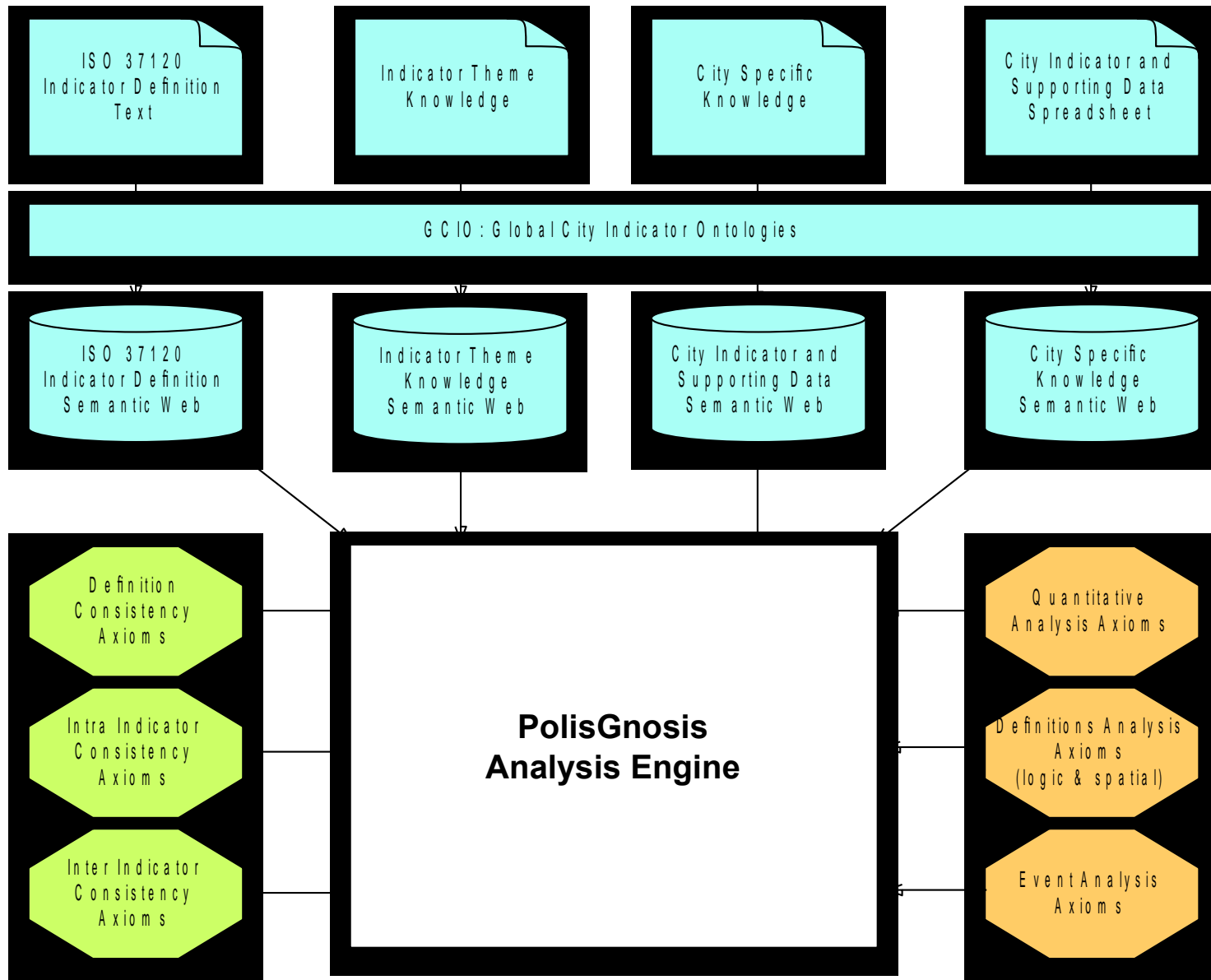
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PolisGnosis Project



Indicator Pattern

Indicator unit of measure
(*measurement ontology*)

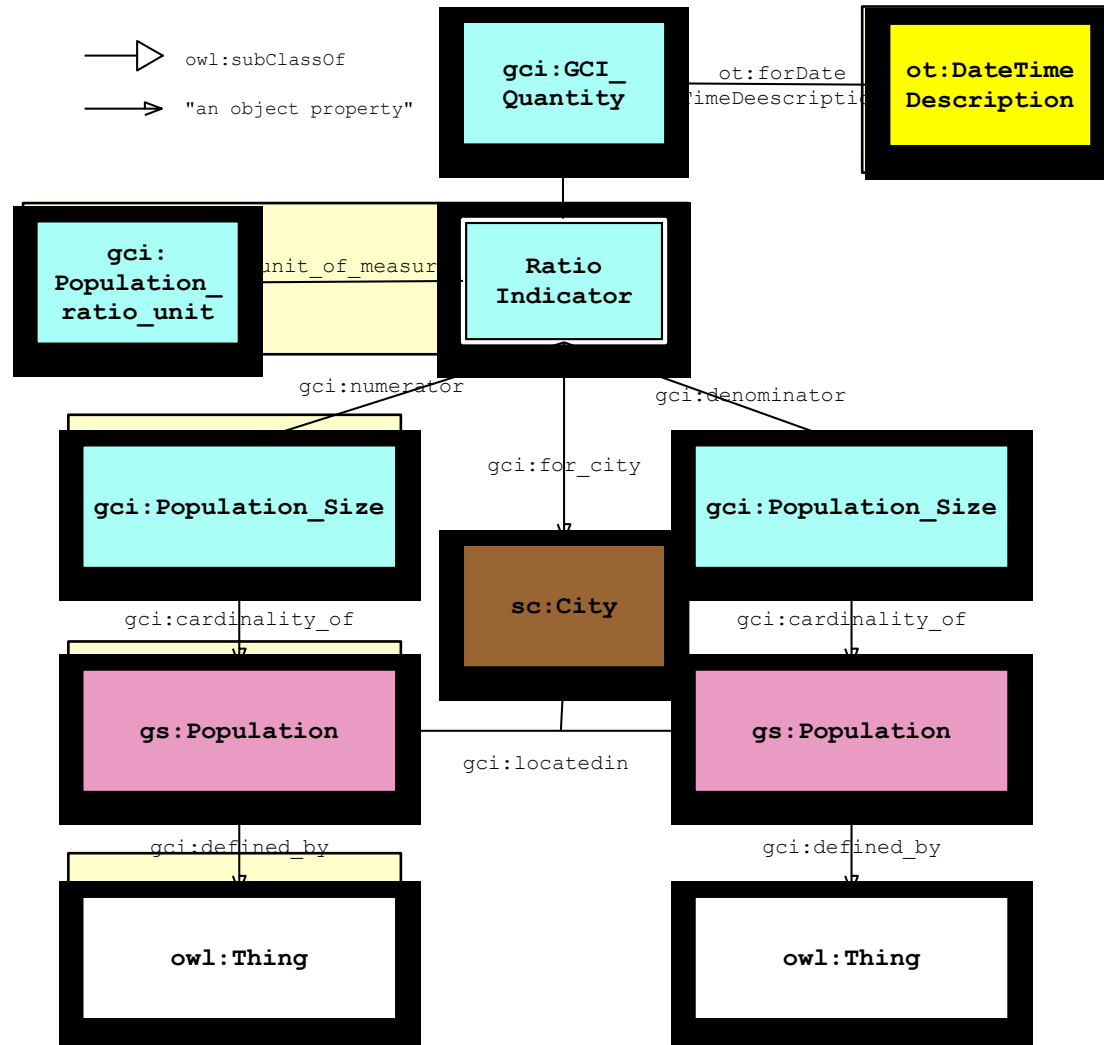
Year of measurement
(*temporal ontology*)

Place of measurement
(*placename and geospatial ontologies*)

Statistic being measured
(*Statistics ontology*)

Population being measured
(*Population ontology*)

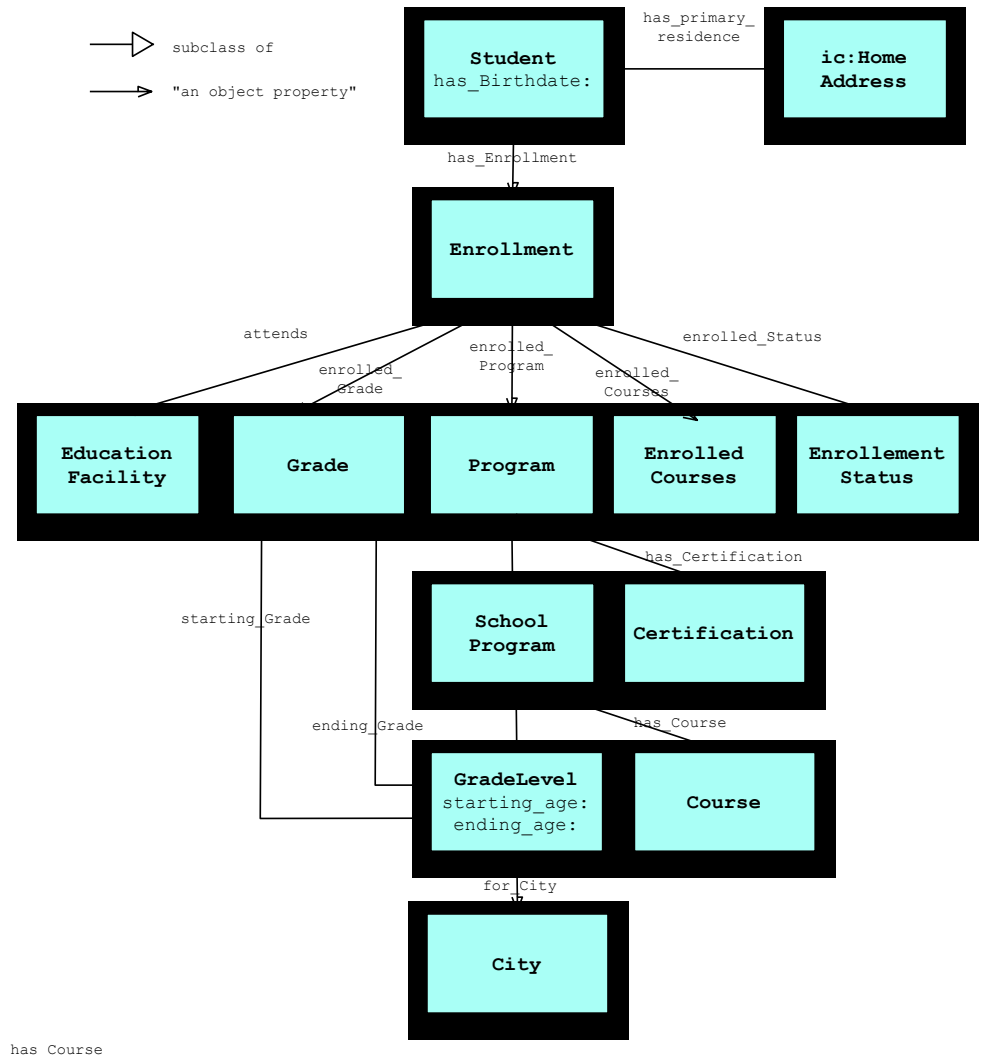
Person being counted
(*Theme ontology*)



Education Common Sense Knowledge Student Pattern

Pattern Competency

- What is the age range for school age women?
- Did the student attend a public school or private school?
- What schools did student attend in year Y?
- Was the student part time or full time?
- What grade level did they attend?

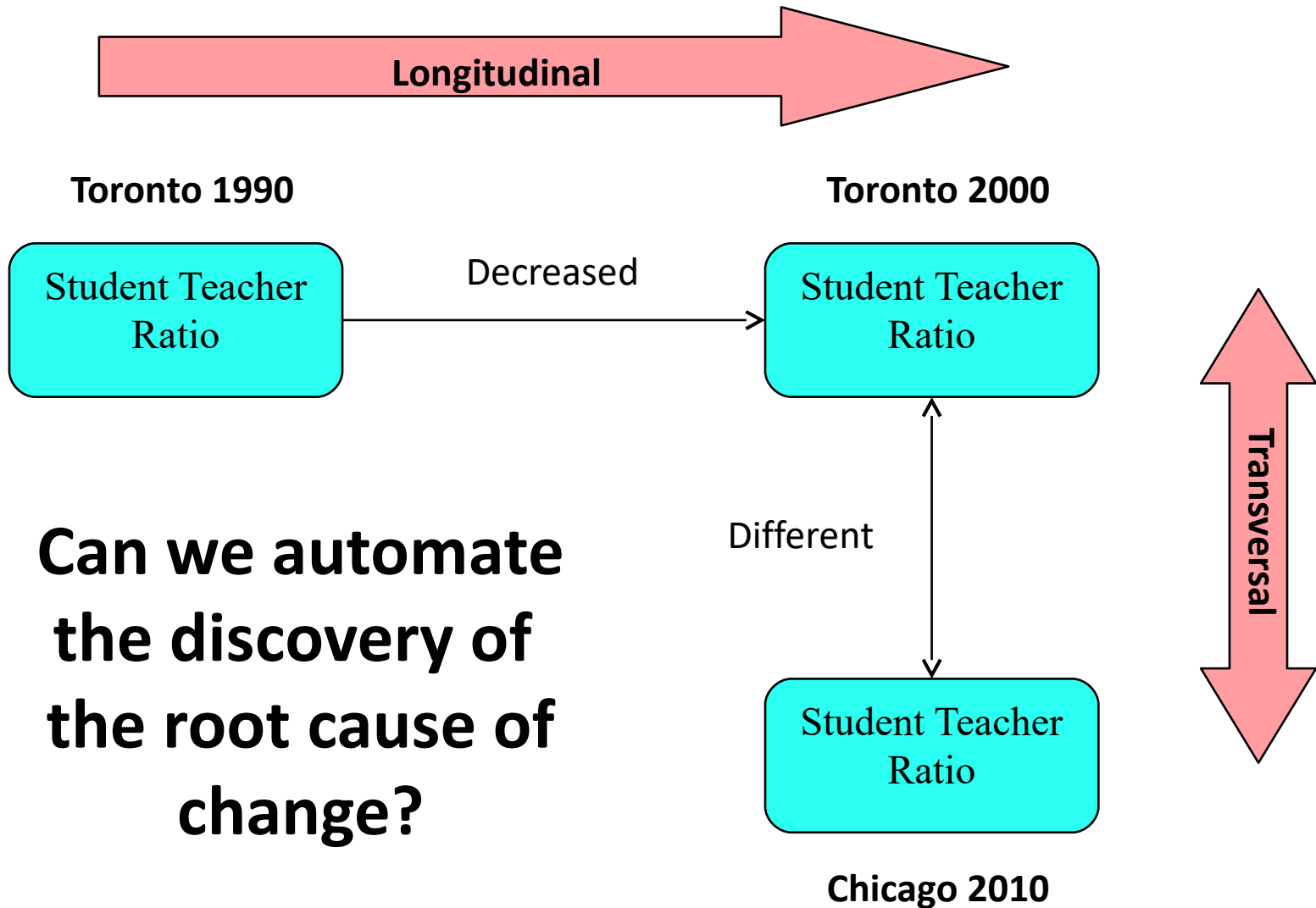


Indicator Value Meta Data

- Measurement
- Place
- Time
- Provenance
- Validity
- Trust

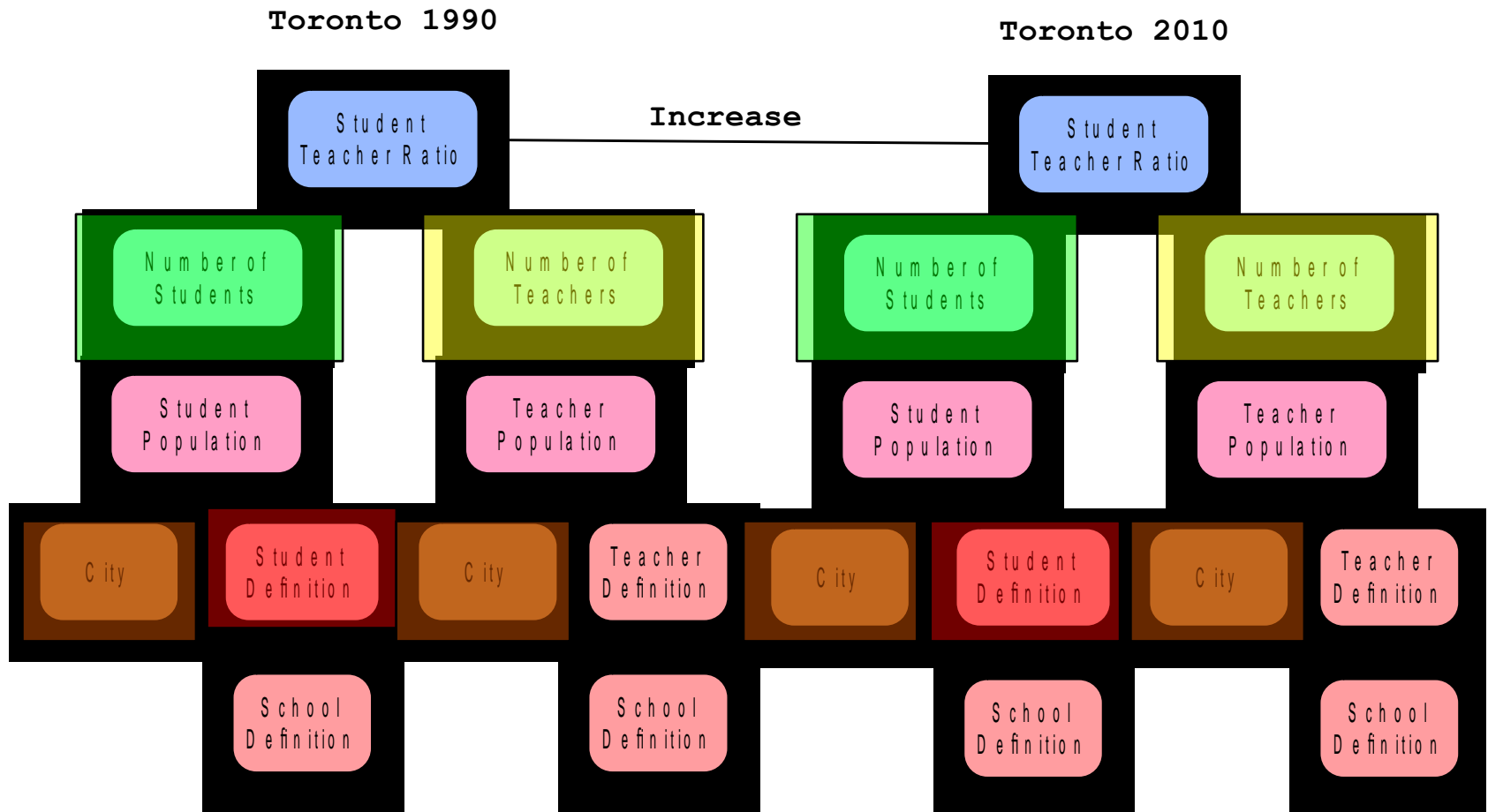
GCI Ontologies Structure

City Performance Analysis



Root Cause Analysis

Longitudinal Analysis



Heterogeneous Models

Status

Ontologies

- **Completed Indicator Themes:** Foundation, Education, Energy, Environment, Finance, Innovation and Shelter themes ontologies and indicator definitions.
- **Underdevelopment Indicator Themes:** Fire & Emergency, Governance, Health, Recreation, Safety, Transportation, Water & Sanitation.

Analysis

- Consistency analysis complete
 - Definitional, transversal, longitudinal

Adoption

- ISO/IEC project
 - NP 21972 create a standard for representing city indicators based on our Foundation ontology.
 - NP 30145-2: create a meta data standard
- City Protocols Society has adopted our ontologies for the representation of their indicators, which include the ISO 37120 indicators.
- Standards Council of Canada exploring the standardization of the theme ontologies
- Partnering with the City of Toronto to adopt our ontologies in publishing city data.

Technology Infrastructure

