

# Formal Demography in the 21st Century

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Societal Implications X Mathematical Capabilities

# The 1900s

Fertility Limitation

Renewal Theory

Survival Analysis

X

Stochastic Time Series

Aging

Simulation

Health

Genetic Demography

X Network Demography

Disparities

Epidemiological Demography

Climate Change Risks and Adaptations		Feedback Models
	X	New Vistas for Simulation
		X.A.I.

## The IPAT Equation

$$\text{Impact} \approx \text{Population} \times \text{Affluence} \times \text{Technology}$$

## XAI = Explainable Artificial Intelligence

- Attention is now the scarce resource.
- Microdemography – vast numbers of good studies of little questions.
- Formal demography – brings together big-picture answers. ...cf. differential equations in “Aiming at a Moving Target”.
- As this century unfolds, going beyond closed-form mathematical models, XAI offers demographers a new tool for crafting macroscopic stories.

## Awaiting a visit from the Reverend Malthus

