Governing Machines: Defining and Enforcing Public Policy Values in AI Systems

Michael L Hodgkins, MD, MPH
Chief Medical Information Officer
American Medical Association

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Current Healthcare Delivery Model Challenge

Demand
Avg. 3 Chronic Conditions/ Person

Supply
Clinicians/ Facilities

Is Digital Medicine/AI The Answer?

2005  2010  2015  2020  2025
Average ambulatory elderly fills 9-13 prescriptions/year

Proliferation of digital solutions (with/without AI) for individual chronic conditions

Need To Avoid Adding Complexity
Need to Focus on Technologies That Can Drive Outcomes

**30% HEALTH BEHAVIORS**
- Genetics
- Diet & Exercise
- Tobacco Use
- Alcohol & Drug Use
- Sleep
- Sexual Activity

**20% CLINICAL CARE**
- Access to Care
- Quality of Care

**10% PHYSICAL ENVIRONMENT**
- Air Quality
- Water Quality
- Housing
- Transit

**40% SOCIAL & ECONOMIC FACTORS**
- Education
- Employment
- Income
- Social Support
- Community Safety

Source: RWJF/UWPHI. The future health ecosystem will focus on the true drivers of outcomes.
Gartner Hype Curve

- Technology Trigger
- Clinical Evidence
- AI
- Peak of Inflated Expectations
- Regulation
- Interoperability
- Privacy/Security
- Trough of Disillusionment
- Slope of Enlightenment
- Plateau of Productivity

Visibility vs. Time
Tension Between “Controllers” and Innovators

“Controllers”
- Regulators
- Payers
- App gatekeepers

Innovators
- Researchers
- Industry

Patients/ Clinicians
Technology vs. Human or Technology + Human

“The way here is not to think technology versus human, but to ask how they come together where the sum can be greater than the parts for an equitable, inclusive, human and humane care and practice in medicine.”

Dr. Abraham Verghese
Stanford University
Discussion