

# HEALTH IT TODAY: BROWNIAN MOTION OR A TRUE TIPPING POINT?

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## TOPICS

- I. End Goal and The Big Picture
- II. Getting There From Here –  
What Does Success Look  
Like?
- III. Summary



# SECTION I

## End Goal and The Big Picture

## THE ULTIMATE REASON FOR HEALTH IT

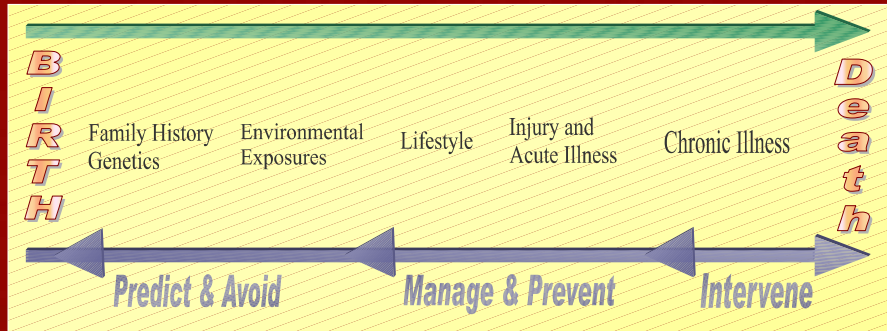


It's **PERSONAL**

What quality and value of **health care services**  
do you demand?

What quality of **health** do you want and deserve?

# TRANSFORMING HEALTH CARE: MOVING FROM TREATING TO PREVENTING TO PREDICTING



1. Adapted from Perlin, Dr. Jonathan B, *Healthcare 1015 & beyond: Some Thoughts on Planning Ahead*, p. 95

# HEALTH IT – ROLE IN HEALTH CARE TRANSFORMATION

## Individual and Community Health & Well-being

*Personal  
Health*

*Health Care  
Delivery*

*Population  
Health*

*Health IT solutions must support the needs of  
**ALL 3**  
“health IT dimensions”*

# BIG PICTURE – HEALTH IT

- Woven into the fabric of our lives and society
- Provides robust, flexible solutions
- Maximizes user choices
- For health care delivery...
  - + Enables ongoing innovation and collaborative improvements
  - + Incorporated with minimal delay
  - + Delivers an agile solution that can adapt rapidly

# THE PURPOSE OF HEALTH IT

This is **NOT** about technology...

It is about **RESULTS:**

- Improved Health Care **Quality & Safety**
  - Improved Health Care **Outcomes**
  - Containing Health Care **Costs**
- Improved **Access** to Health Care
- **Improved Health**

# ORGANIZING CONSTRUCT

- **Outcome:**  
Health & Well-being
- **Enabler:**  
Health Information
- **Means:**  
Health IT solutions

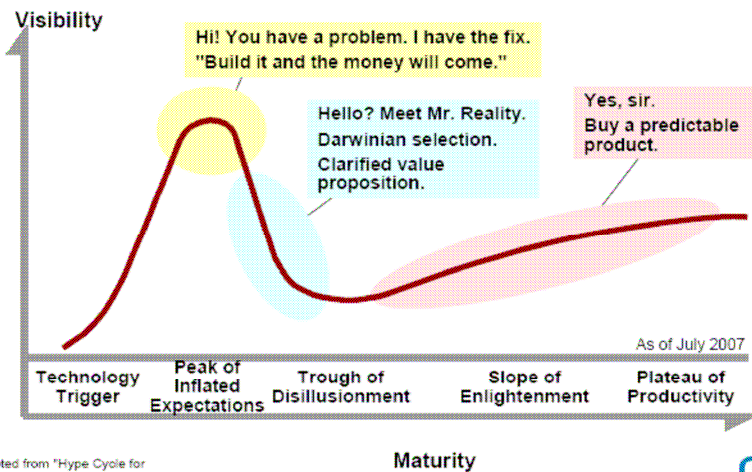
## SECTION II

Getting There From Here –  
What Does Success Look Like?

BUT WE DON'T KNOW WHAT THE  
FUTURE WILL ACTUALLY LOOK  
LIKE



## Gartner Hype Cycle

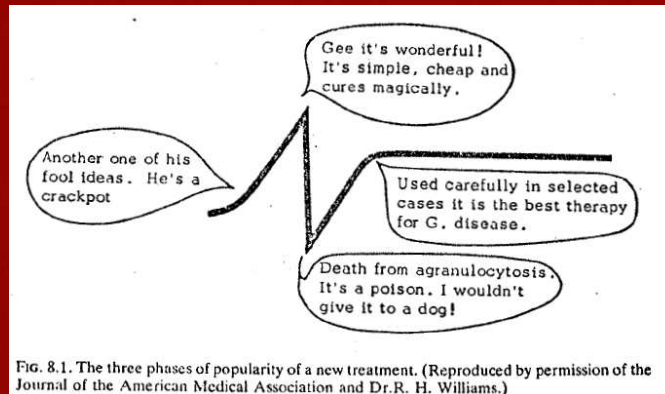


Adapted from "Hype Cycle for  
Healthcare Provider Technologies,  
2005," G00127850  
Kolodner - OMG SOA in healthcare

Maturity

Gartner

## A REPEATING, PREDICTABLE CYCLE...



Cited in Paykel, ES and Coppen A, Eds. Psychopharmacology of affective disorders. Oxford University Press. 1979, page 160.

## WHAT CAN WE LEARN FROM OTHER INDUSTRIES?

### TRANSPORTATION...

- Fear
- Linear projection of the present

# TRENDS IN TECHNOLOGIES

- Some new breakthroughs start out expensive and exclusive

## *The Automobile*

## JAMA – APRIL 21, 1906

### *AUTOMOBILES FOR PHYSICIANS' USE*

*ARE THEY PRACTICAL? ARE THEY DESIRABLE? ARE THEY ECONOMICAL?  
ARE THEY BETTER THAN HORSES?*

#### THE AUTO AS A PHYSICIAN'S VEHICLE.

F. M. CRAIN, M.D.

REDFIELD, S. DAK.

Pp. 1172-3

#### Graft and Robbery

#### The Features of an Ideal Car.

An ideal physician's car has not yet been placed on the market. The nearest approach to it, in my opinion, is the

#### THE PHYSICIAN'S AUTOMOBILE INDISPENSABLE.

HENRY ENOS TULEY, M.D.

LOUISVILLE, KY.

Pp. 1177



JAMA – APRIL 21, 1906

*AUTOMOBILES FOR PHYSICIANS' USE*

*ARE THEY PRACTICAL? ARE THEY DESIRABLE? ARE THEY ECONOMICAL?  
ARE THEY BETTER THAN HORSES?*

THE AUTO TOO MUCH TROUBLE TO KEEP IN  
ORDER.

F. A. SWEZEY, M.D.  
WAKONDA, S. DAK.

P. 1174

**I**N my practice, which is entirely country work, I have used, for two seasons, an 8-H.P., one cylinder, water-cooled, gasoline runabout (III), and I find that the automobile is not practical for such work, owing to bad roads and inclement weather. They are more for pleasure than for general business use, and I would not advise any physician in country work to buy one and to rely entirely on it. In night work or in wet or cold weather an auto is very annoying; in fact, I have sold mine, and will never buy another. As my

JAMA – APRIL 21, 1906

THE MOTOR CYCLE FOR THE COUNTRY  
DOCTOR.

W. NICHOLAS LACKEY, M.D.  
GALLATIN, TENN.

P. 1197

# JAMA – APRIL 21, 1906

P. 1193

Relative Cost of Keeping a Horse and an Automobile.	
HORSE AND RIGS.	AUTOMOBILE.
RELATIVE FIRST COST OF EQUIPMENT.	
Two horses .....	Automobile .....
Buggy, rubber tire .....	Fur robe .....
Cutter' .....	Heavy lap robe .....
Cart .....	Summer robe .....
Two sets harness .....	
Two day blankets.....	
Two night blankets.....	
One fur robe .....	
One heavy lap robe .....	
One summer lap robe.....	
SUPPLIES FOR ONE YEAR.	
Oats, 300 bushels, at 30c..	Gasoline, 120 gals., at 18c.
Hay, 2 tons .....	Lubricating oil .....
Straw, 6 tons .....	Spark plugs .....
Farrier services .....	Inlet valves .....
REPAIRS AND HIRED MAN.	
Repairs (ordinary) .....	Repairs (average circum-
Man .....	stances .....
	Man .....
Total .....	Total .....
No. of months' service, 11	No. of months' service, 10.
These estimations are calculated on a basis of two years' service.	
Time saved in making trips, 40 per cent.	

Reprinted - 1906 - with permission

10

10-24-1906

# JAMA – APRIL 6, 1912

## AUTOMOBILE ACCESSORIES AND AIDS TO COMFORT

Vol 58 (14)  
P. 1058

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10-24-1906

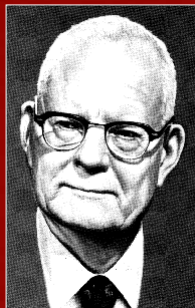
# TRENDS IN TECHNOLOGIES

- Successful technologies become available to more and more users
  - + Lower cost
  - + More convenient
  - + Less skill needed
  - + Improve more quickly

**"Faster, easier, cheaper, more convenient"**

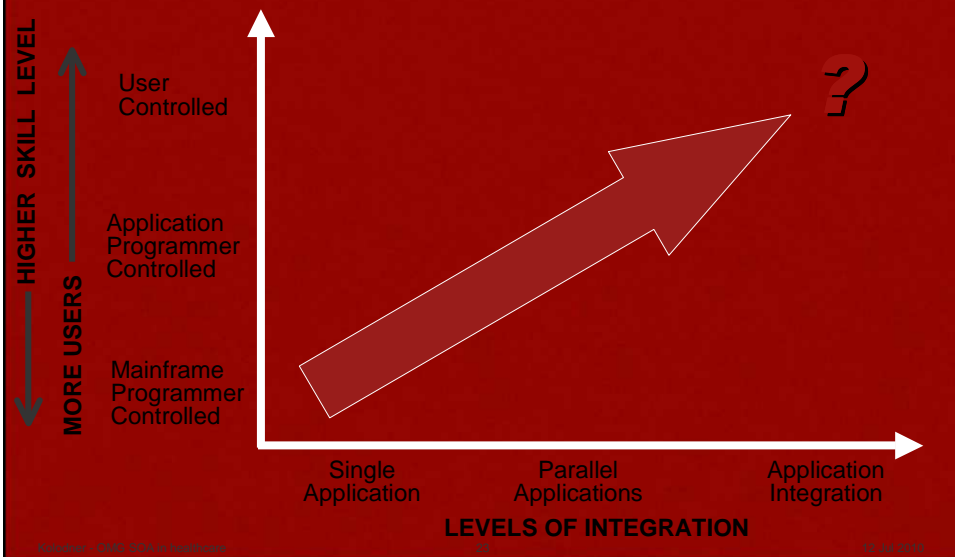
  - + Features transition from high-end to widely available at lower cost before turning into commodities
- Markets mature from vendor driven to consumer-driven
- As markets mature, profits derived by evolution of business models
  - + Smaller profit margins with a much larger customer base.

## NOTABLE QUOTE – W. EDWARDS DEMING



**"You don't have to change;  
survival is not mandatory."**

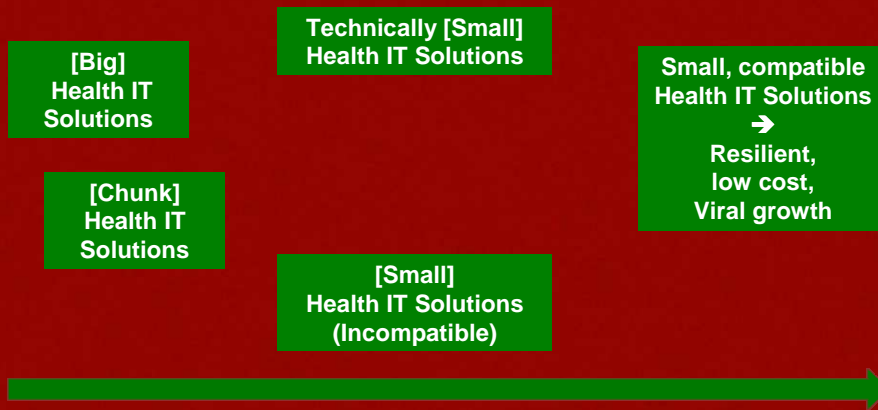
# IT TECHNOLOGY EVOLUTION



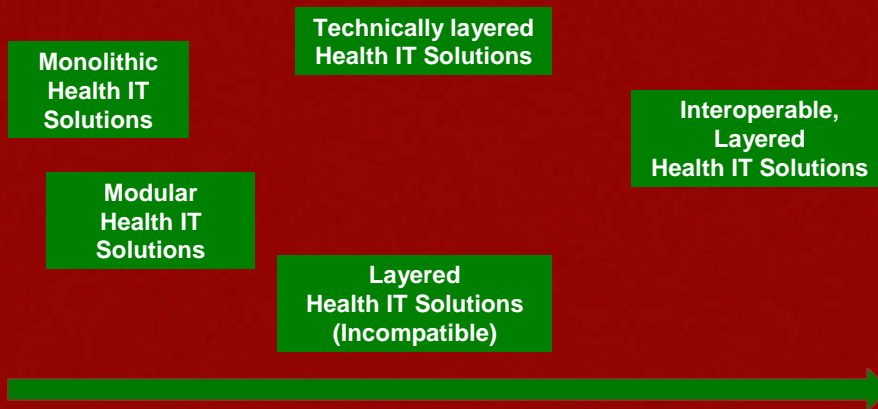
## MARKERS OF SUCCESSFUL HEALTH IT

- Compete on those aspects that add real value for consumers
- Health IT standards that allow variation to explore and innovate
  - + Data and information models
  - + Communication and security protocols
- Remove unnecessary health IT costs
  - + Common, reusable components
  - + Don't have to recode what works except to improve /extend existing ones
- Incremental convergence path from existing solutions
  - + No "rip-and-replace"

# STAGES OF HEALTH IT TECHNICAL MATURATION



# STAGES OF HEALTH IT TIERED ARCHITECTURE MATURATION



# STAGES OF HEALTH IT SOA MATURATION

Monolithic  
Health IT  
Solutions

Technically-  
Reusable  
Component-ized  
Health IT Solutions

Reusable,  
Component-ized,  
Health IT Solutions

Modular  
Health IT  
Solutions

Component-ized  
Health IT Solutions  
(Incompatible)



## So How Are We Doing?

## SECTION III

### In Summary

## THE ULTIMATE REASON FOR HEALTH IT



**Health IT is a  
key enabler for us  
ALL to get:**

The quality and value of health care services  
we demand

The quality of health we want and deserve

# INVITATION

"Our options are to learn this new game, the rules, the roles of the participants and how the rewards are distributed,

or

to continue practicing our present skills and become the best players in a game that is no longer being played."

*\* Larry Wilson ~  
Changing the Game: The New Way to Sell*

# QUESTIONS & COMMENTS