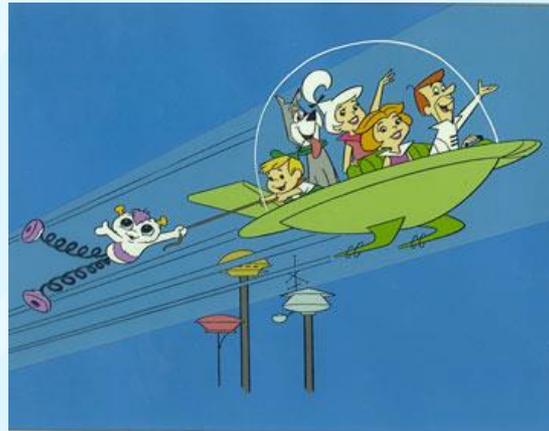


Rising to the Challenge Or Keeping up with the Jetsons

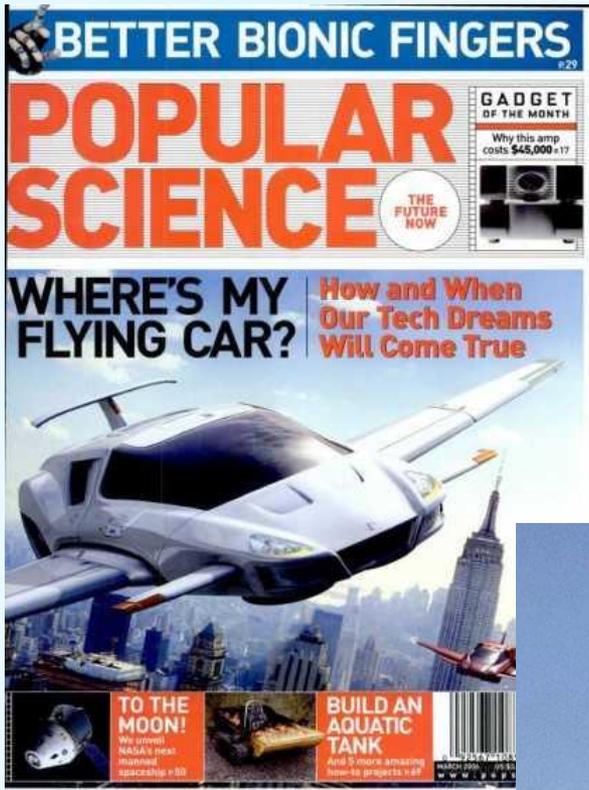
Christie Ehemann, PhD, MSHP

NAACCR 2014

PREDICTING THE FUTURE?



WHAT WE THOUGHT



WHAT WE GOT



The future is hard to predict

But

Automation is growing fast!

Instant Data and Communications

- **Google**
 - Cell phones
 - Tablets
 - Connectivity
 - Medical software and big data
- **Traditional communication fading**
 - Electronic media
 - Twitter
 - Instagram
 - Facebook

What is the connection between instant data and public health?

■ Twitter

- Being used to identify and monitor concentration of flu cases by geographic area

■ Google

- Reported flu outbreaks based on search terms and number of searches



Google Ventures Leads \$130M Round For Big Data Medical Software Company Flatiron Health

ARTICLE

COMMENTS (1)

ALTOS SOLUTIONS DNANEXUS FIRST ROUND CAPITAL FLATIRON HEALTH



By TIMOTHY HAY [CONNECT](#)

Google Ventures has made its largest medical software investment yet, providing the bulk of a \$130 million financing for **Flatiron Health Inc.**, which aggregates cancer-patient data from a wide variety of sources to help doctors make treatment decisions.

First Round Capital, Laboratory Corporation of America and angel investors also contributed to the Series B financing, which will partially be used to acquire electronic medical records company **Altos Solutions Inc.** Valuation was not disclosed.

Fortune **earlier reported** Flatiron was raising a nine-digit round led by Google Ventures.



Nat Turner (L) and Zach Weinberg, the co-founders of Flatiron Health — Flatiron Health

What is the connection between instant data and public health?

- Is it **ACCURATE**?
- What is public perception of accuracy?
- Will cancer data be reported based on google searches?

Accuracy versus Speed

- **Does perception become reality?**
 - What people hear first sticks
- **When does precision matter?**
- **Can we hold that ground?**



Only if we are able to change

“Change happens to you or in spite of you.”

“If companies do not disrupt themselves, disruption will disrupt them.”

- **Brian Solis**
- *How to Build a Culture of Innovation by Killing Mediocrity*
 - [Linkedin.com](https://www.linkedin.com/pulse/how-build-culture-innovation-killing-mediocrity-brian-solis/)

STRESS on Surveillance Systems!

- **Recession**
- **Staffing**
- **Everyone wants us to collect something more**



Survival Mode!

- **Batten the Hatches!**
- **Benefit – possible survival**



- **Risk – More innovative organizations or those willing to sacrifice accuracy leave you “in the dust.”**

Kodak Moment

- **Enormous opportunity**
 - Innovators of their time
 - Brand recognition
 - “Don’t take my Kodachrome away!”
 - First patents on digital technologies

Kodak Moment

- **Company culture was not innovative**
 - Relied on past for future profits
 - Too secure
 - Too confident
- **Where are they NOW?**
 - Sold patents!
 - Bankruptcy

Kodak sells patents for \$525 million

Eastman Kodak sells 1,100 digital imaging patents for \$525 million

By The Associated Press December 19, 2012 7:27 PM

Cancer Surveillance Threats/Opportunities/Challenges

- **Electronic Health Records**
- **Health Information Exchanges**
- **Data warehouses**
- **Data linkages**

Will researchers lose sight of role of central cancer registries:

- Consolidation
- Standardized data
- Population based
- Quality assessment

Cancer Surveillance Threats/Opportunities/Challenges

- **Funding**

Can we ensure adequate funding and a trained workforce?

- **Increased expectations**

Can we prove our value to gain support without over-promising?

**“The best way to predict your future is
to create it”**

— Abraham Lincoln



Easier said than done.....

How do we make our future?

We need to be clear about our “value – add”

- **Standardized data**
- **The truth (not instant but right)**
- **Consolidation**
- **The core of any population based cancer research**
- **Quality assessment**

Expand and Publicize Unique Uses of Cancer Registry Data

- **Monitor outcomes of Affordable Health Care Act**
- **Monitor success of HPV vaccine**
- **Monitor cancer from Hepatitis and other infectious agents**
- **Measure and track disparities in treatment**
- **Measure the effects of screening programs**

Expand and Publicize Unique Uses of Cancer Registry Data

- **Explore new hypotheses**
 - Assisted reproductive technology and cancer
 - Birth defects and cancer
- **Facilitate large cohort studies**
 - Studies around nuclear power facilities
 - Camp Lejeune – Marine Corps Base

Explore and Establish New Uses for Cancer Registries

- **Comparative Effectiveness Research**
 - Track outcomes
 - Measure recurrence; progression
 - Point the way to better treatment
 - Evaluate new biomarkers

Explore and Establish New Uses for Cancer Registries

- **Survivorship**

- Second primaries
- Co-morbidities
- Care Plans and Treatment Summaries

Using Cancer Registries to Support Survivorship Care Plans and Treatment Summaries

- **Input of data from cancer registry**
 - Type of cancer
 - Stage
 - Some treatment data

Using Cancer Registries to Support Survivorship Care Plans and Treatment Summaries

- **Data from Oncologist using modified WebPlus software**
 - Complete treatment protocols
 - Other information important to cancer survivor
- **Patient access**
 - Future web access to guide care

Using Cancer Registries to Support Survivorship Care Plans and Treatment Summaries

- **Why use the Registry?**
 - Saves time
 - Saves money
 - Consolidated record
 - Reduces duplication of efforts!



Adapt to Expectations Using New Technology

- **Build in more nimbleness and flexibility**
 - New strategies and approaches

- **For example, early Incidence Reporting**
 - Cancer Incidence report
 - Treatment report

There is a trade-off between timeliness and completeness



One approach: two-stage reporting



Come back for later

Advantages

- **Faster incidence**
 - Incidence reporting in U.S.
 - Recruitment into clinical trials
 - Cluster investigations
- **Provides time to fully collect:**
 - Stage
 - Treatment
 - Biomarkers
 - Supports CER and Evaluation Quality of Care

Adapt New Technology

- **Automate where we can**
- **Utilize Health Information Exchanges and other electronic systems**
 - Early Case Capture; linkage studies; follow survivors - outcomes

Overarching Approach to Surveillance

- **CDC Surveillance Strategy**
 - Strategies related to:
 - Innovative IT
 - Availability, quality, and timeliness of surveillance data
- **Can CDC help states unify their surveillance systems?**
 - Common data items
 - Common IT systems
 - Cancer and birth defects, immunizations, diabetes, etc

Overarching Approach to Surveillance

- **Tap the influence of all CDC surveillance systems**
 - To address common surveillance challenges
 - Data access
 - Inter-state data exchange

Balance

Don't break the system while pushing it forward



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Visit: www.cdc.gov | Contact CDC at: 1-800-CDC-INFO or www.cdc.gov/info

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.