

Technology in healthcare: The
cause and solution to *something* –
we're just not sure what

Richard Booth

Atlantic NSNIG Conference 2015

Western



Arthur Labatt Family
School of Nursing

JUMP ON THE



22 years

1993

- Microsoft released Windows NT 3.1
- WWW at CERN
- Intel Pentium Processor
- Doom video game
- “spamming” coined as a term
- Mosaic web browser 1.0
- *H. pylori* + antibiotics
- Bluejays win MLB World Series

2015

- Apple Watch
- Uber everything
- Drones / Self driving cars
- 1.49 billion Facebook users
- Hoverboard
- Tesla Powerwall
- Growing food in space
- Lab grown meat
- Bluejays win MLB World Series (*tentative)



My average nursing student wasn't alive when the Blue Jays won their last World Series

Little conceptualization of a pre-internet world or workplace





di·chot·o·my

/dī'kädəmə/

noun

a division or contrast between two things that are or are represented as being opposed or entirely different.

"a rigid dichotomy between science and mysticism"

synonyms: contrast, difference, polarity, conflict; [More](#)

Traditional healthcare technology vs. what society is up to related to technology

Medication

gndek, Cheryl - Add Order

gndek, Cheryl **PIN: 1187 02 37**

Age: 59 Years Location: U.S. #4 759-6 Address: Date: 09/12/2010
 DEA#: 105666679 State: IN #21343613 Discharge Date: Not Entered

Find **Search** **Compare** **Type** **Document Medication by Pin**

Search results **Medications** **Administration**

Medication	Administration
art/valproate 1500 mg injection	gabapentin 400 mg oral capsules
gabapentin 400 mg oral capsules	gabapentin 3% with Ectoprilol 2% injection
gabapentin 3% with Ectoprilol 2% injection	gabapentin 400 mg oral tablets
gabapentin 400 mg oral tablets	

gndek, Cheryl - 1187 02 37 **Save**

*** Details for furosemide (Lasix 40 mg oral tablet)**

Details **Order Comments** **Compliance**

Date **Route of Administration** **Frequency** **Dose** **Dose Unit** **Dose Form**

1 tab **Oral** **1 tab** **30 tabs** **mg** **30 tabs**

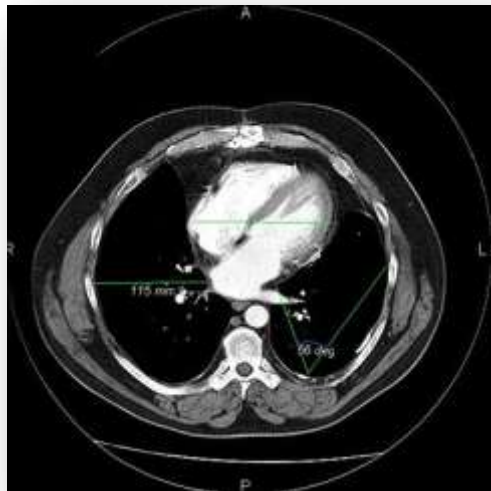
Start Date/Time **09/12/2010 12:00 PM** **Stop Date/Time** **09/12/2010 12:00 PM**

Special Instructions

Frequency/Unit of Measure **1 tab** **mg**

Type of Therapy **Acute** **Chronic**

Save **Cancel** **Print** **Close**



The other side...

Facebook sorry - almost - for secret psychological experiment on users

- Emotion-altering project should have been 'done differently'
- Company was 'unprepared' for negative reactions

Sweden is becoming the world's first cashless society

By [Duncan Geere](#) 2 days ago [World of tech](#)

Transactions are increasingly happening on smartphones

Amazon Hammers FAA For Lack Of 'Impetus' Over Drone Policy

Self-driving cars will be tested on Canadian roads in 2016

 by [Jon Fingas](#) | [@jonfingas](#) | October 14th 2015 At 10:02am

NEWS ANALYSIS

ACLU: Orwellian Citizen Score, China's credit score system, is a warning for Americans

TECHNOLOGY

<http://www.theatlantic.com/magazine/archive/2015/11/if-youre-not-paranoid-youre-crazy/407833/>

If You're Not Paranoid, You're Crazy

As government agencies and tech companies develop more and more intrusive means of watching and influencing people, how can we live free lives?

Elon Musk's SpaceX reportedly files with the FCC to offer Web access worldwide via satellite

CARS

PEOPLE KEEP CRASHING INTO GOOGLE'S SELF-DRIVING CARS

ROBOTS, HOWEVER, FOLLOW THE RULES OF THE ROAD

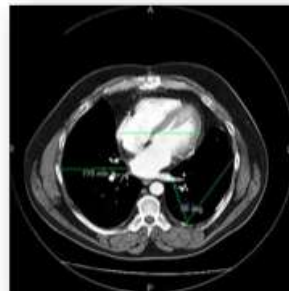
By [Dan Moren](#) posted May 11th, 2015 at 6:00pm

For the most part, medical care in America is still structurally delivered as it was more than fifty years ago – to those with acute problems, inside small boxes (outpatient clinics) or large boxes (hospitals) where doctors lay waiting for them to arrive, wielding a vast array of high-technology tools – the bright shiny objects of healing.

Smythe, 2014

Recall this
previous slide?

One side...



The problem is that unless we are willing to re-evaluate the actual *processes* of care (such as who or what delivers the actual care, where care is delivered, and what level of care is delivered to whom, etc.), the change we are seeking will not occur. We love bright shiny objects, and have exhibited great creativity and innovative energy around their development. However the outcomes we seek will only be achieved as we rebalance the importance of tools and processes and find ways to thoughtfully leverage what, admittedly, is a potential treasure trove of new technology.

“...rebalance the importance of tools and processes...”

Tools



We're good at
this stuff...

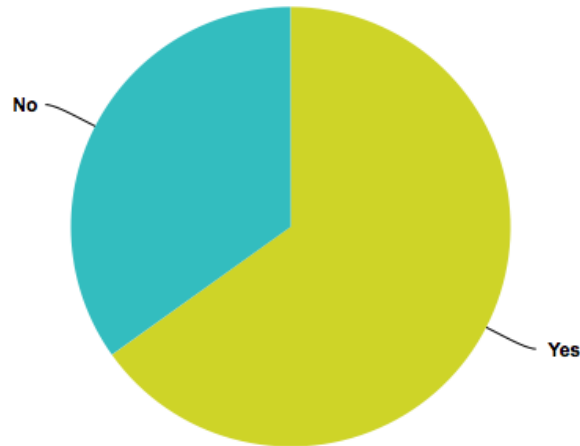
Not so good about
reconceptualizing
this...

Process



Should patients-consumers be given access to their electronic health information?

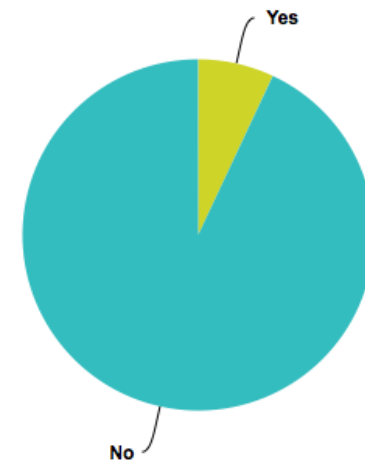
Answered: 43 Skipped: 0



Second year BScN students who have never known a world without the internet.

Should patients-consumers be allowed to edit or add content to their electronic health record?

Answered: 43 Skipped: 0



Where did all this paternalism come from?

Why are these students reluctant to evolve process?



Technology itself, is not
important

The changes technology
enables is the variable we
should be exploring

We have focused almost
exclusively on “shiny
objects”

We continue to spend money

We continue to build solutions to inform a number of processes that are likely obsolete or of diminishing return on investment

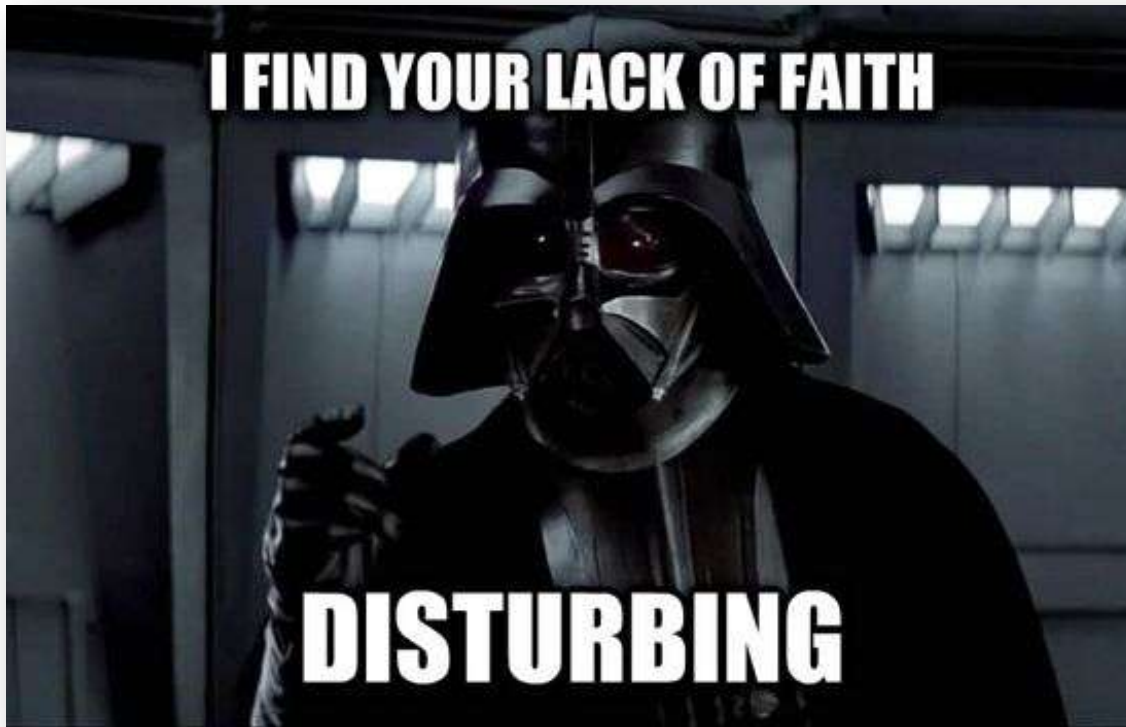
We continue to educate students with a legacy value system that does not connect with modern reality

We move forward with technology as a solution to healthcare issues instead of revisiting *ourselves (*and clients too)*





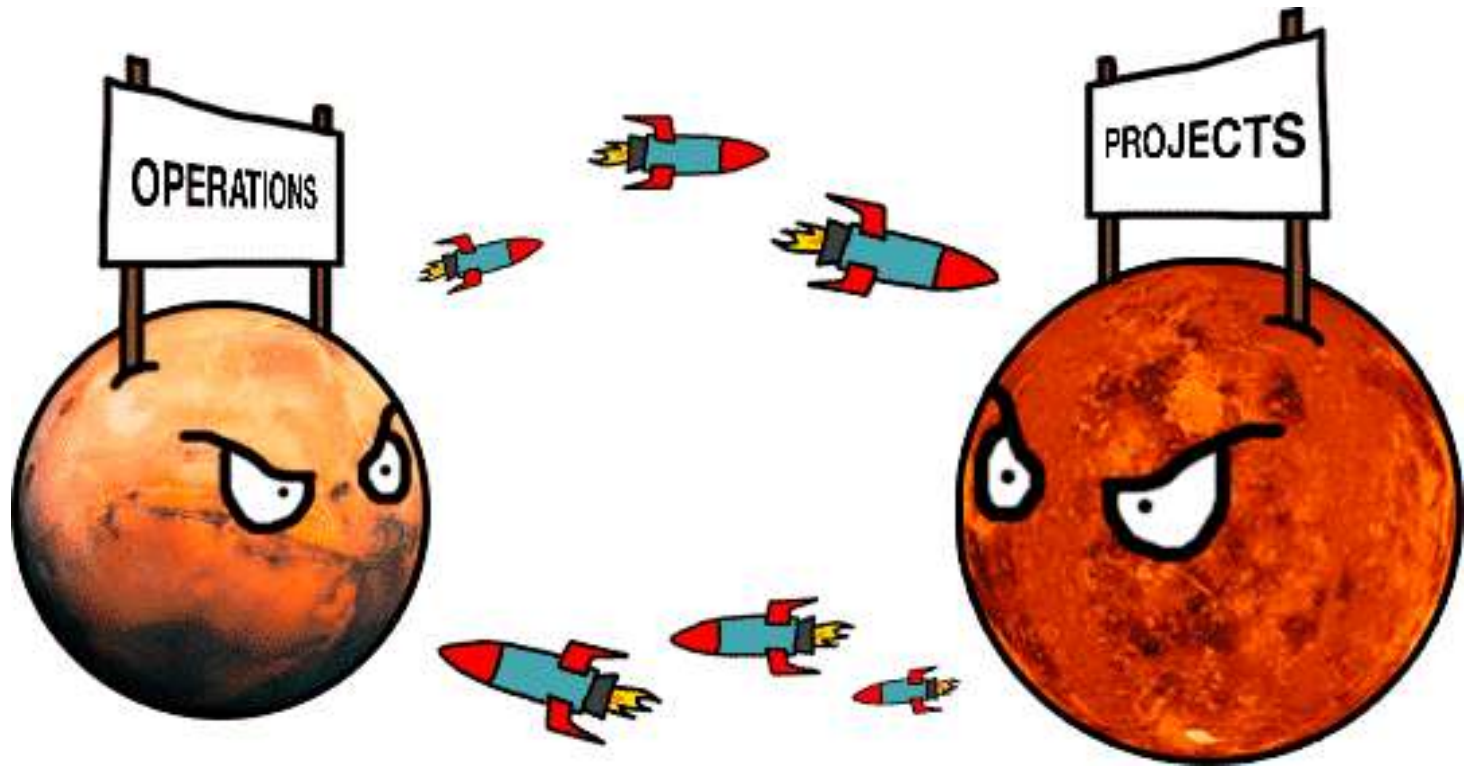
Is our current-day health technology a *cause*, or *solution*, to anything significant in healthcare? Or is it just another interesting variable that history will look back upon and critique accordingly? A passing fad, that was implemented to address issues of the day, that were quickly realized to be both dated and limited in longevity? Was the whole domain made 'non important' with time?



That's crazy talk
Richard. Why did
the conference
planners invite this
guy anyways?

Is our current iteration of informatics in healthcare the equivalent of the 'diesel engine' of passenger cars? Well meaning, but everyone knows is probably not going to make it into the future because its promises were 'just too good' to be true?

Well, then. How do you plan for the future, but BE in the present?





1:29 / 2:10



1961 electronic medical records





ACMI2008

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 57  5

Where we come in...

- Fiduciary responsibility to nursing, especially in terms of technology
- Balance the operations, with the project
- Be the critical voice of technology, for technology
- Think *process* before *tool*
- Appreciate the future reality(s) may not be congruent with your value system or current perspectives of nursing (or healthcare)

**“If I had asked
people what
they wanted,
they would have
said faster
horses”**

-- Henry Ford





The 401 is always under construction. This will never change.
That is, until it is replaced by ‘something’

Personal turning points

“Do not use the Internet for (insert academic word here)”
(2000)

“Informatics isn’t a nursing topic” (2003)

“Blogs will never work in nursing education”(2005)

“We need to stop nurses from using Facebook at work” (2008)

...and then 2009
happened



Am I out of touch?



No, it's the children who are wrong.

2000



Height: 381mm
Width: 381mm
Depth: 435mm
Weight: 15,800g
Price: £1,500
CPU: 500MHz
RAM: 128MB
Display: 1024 x 768
Storage: 30GB

2010



Height: 115.2mm
Width: 58.6mm
Depth: 9.3mm
Weight: 137g
Price: £599
CPU: 1GHz
RAM: 512MB
Display: 960 x 640
Storage: 32GB

Is nursing currently 'out of touch'?



My current 19 month old will never know a world that isn't digitally mediated. This both encourages and terrifies me in the same right

Evolving or conceptualizing new processes

- When a dominant paradigm is challenged, it attempts to hold on to its power
 - By espousing that change is not possible
 - Providing excuses to impede change
 - Focus on status quo
 - Use coercive tactics to generate compliance



“There’s no chance that the iPhone is going to get any significant market share.”

**Steve Ballmer, Microsoft CEO
(April 2007)**

What has happened in the last little while that will force us to reconsider *health technology* – and the unquestioned processes we currently subscribe to within healthcare





Susannah Fox

@SusannahFox

 **Follow**

The most exciting innovation of our era is not access to medical information, but access to each other.

 Reply  Retweet  Favorite  More

RETWEETS

76

FAVORITES

49



6:51 AM - 24 May 2014

Technology is still not overly important here;
what it enables is the valuable artifact



YouTube is about
10.5 years old

‘Access to each
other’

[-] ChoosetheSword 3223 points 13 days ago

Fun fact: Guy in the video is Jawed Karim, co-founder of YouTube. Net worth around \$140 million. And that's pretty much all there is to say.



WDG Public Health
@WDGPublicHealth



Following

Lineups at the Guelph Flu Clinic averaging 4 hrs. More clinics tomorrow & next wk:
<http://bit.ly/23rQQL>

Reply Retweet Favorite More

11:33 AM - 30 Oct 2009



MLHealthUnit

CLINICS TODAY: Strathroy District Collegiate Institute, White Oaks public school, Glen Cairn p.s., Glencoe Agricultural Centre.
3:30-8:30pm.

about 6 hours ago from web

1.5 hour wait @ White Oaks public school.

about 13 hours ago from TwitterBerry

20-minute wait @ Clarke Road secondary, hour wait @ Greek Canadian Club

about 20 hours ago from web

At least hour wait at Mother Teresa. Lineup extends outside into parking lot. Can't make it tonight? See www.healthunit.com for more clinics

about 20 hours ago from web

Clinics are seeing a surge after supper. Can't make it to a clinic tonight? Check www.healthunit.com for more clinic dates, locations.

about 20 hours ago from web

Name MLHealthUnit
Location London and Middlesex County
Web <http://www.healthunit.com>
Bio Our mission is to promote wellness, prevent disease and injury, and protect the public's health through the delivery of public programs, services and research.

21 following 450 followers 33 listed

Tweets 206

Favorites

Following



RSS feed of MLHealthUnit's tweets

Nov 18/19 2009

MLHealthUnit

CLINICS: Two today, 3:30-8:30pm. St. Thomas Aquinas S.S., 1360 Oxford St. West, London; Sir George Ross S.S., 365 Belfield Street, London

about 2 hours ago from web

Planning to get vaccinated tomorrow or this weekend? Here's a tip: Lineup is longest at start of each clinic, winds down as clinic goes on

about 15 hours ago from web

No lineups at Clarke Road and Lambeth

about 15 hours ago from web

LINEUPS: 45-minute wait @ Clarke Road, 1-hour wait @ Lambeth. Coming to a clinic tomorrow? Don't forget rain gear (umbrella, raincoat, etc)

Name MLHealthUnit
Location London and Middlesex County
Web <http://www.healthunit.com>

Bio Our mission is to promote wellness, prevent disease and injury, and protect the public's health through the delivery of public programs, services and research.

1 following 188 followers 6 listed

Tweets 43

Favorites

Following



RSS feed of MLHealthUnit's tweets



ROW Public Health
@ROWPublicHealth



Following

Media Release: Additional H1N1 clinics announced; <http://tiny.cc/6KDSJ>

Reply Retweet Favorite More

8:02 AM - 26 Nov 2009

30 October 2009

In 20 days in 2009, MLHU increased their Twitter followers by 260. **Twitter only had 18 million users in 2009

2013



2014 - Ebola

2015 - Measles outbreak; HPV Toronto Star article fail

ACCEPTED MANUSCRIPT

Mapping the zoonotic niche of Ebola virus disease in Africa

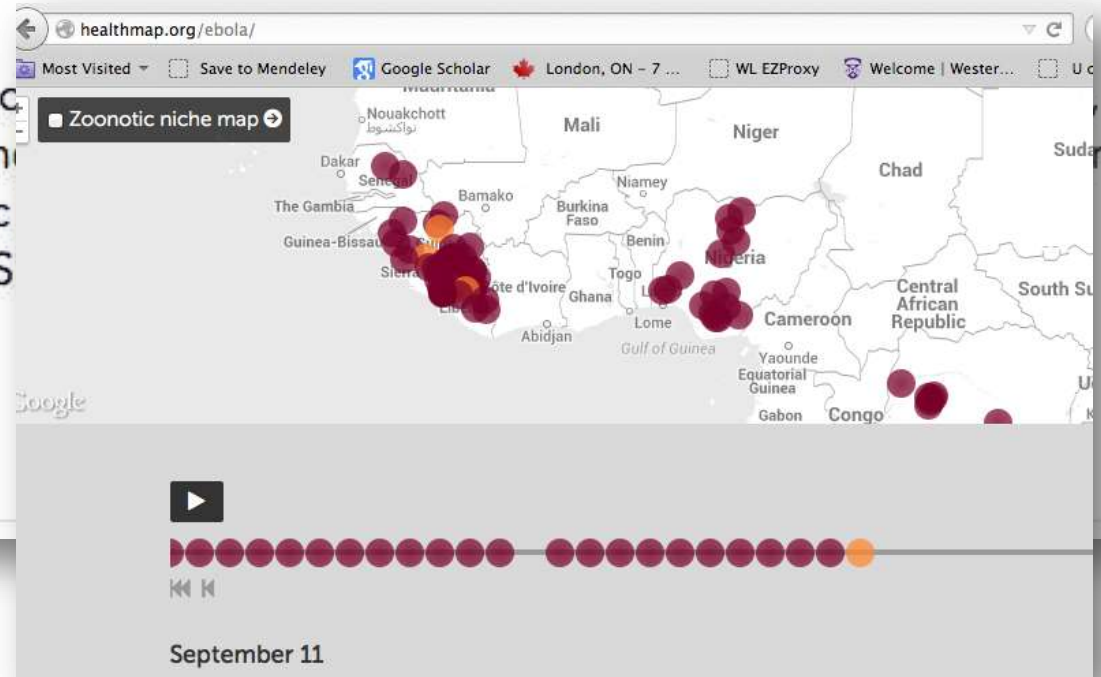
David M Pigott, Nick Golding, Adam Oliver J Brady, Moritz U G Kraemer, W Gething, Peter W Horby, Isaac Andrew J Tatem, Kamran Khan, S

DOI: <http://dx.doi.org/10.7554/eLife.04395>

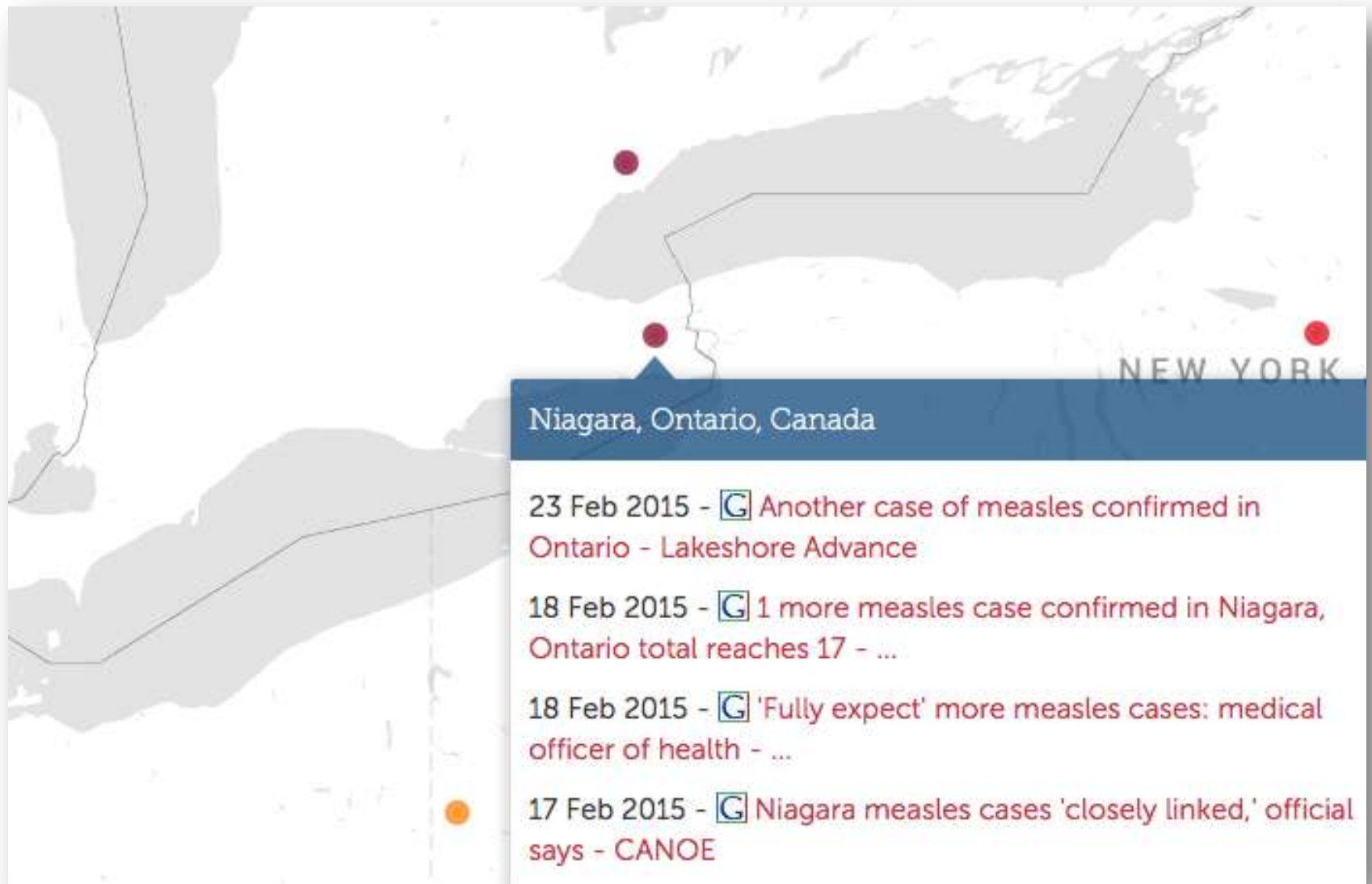
Published September 8, 2014

Cite as eLife 2014;10.7554/eLife.04395

Download PDF



BOSTON -- The **Ebola outbreak** in West Africa is focusing a spotlight on an online tool run by experts in Boston that flagged a "mystery hemorrhagic fever" in forested areas of southeastern Guinea nine days before the World Health Organization formally announced the epidemic.



Map news media data, with data from Panorama, with data from social media feeds, with data from clinical records.....

..... Is this really a far off reality?



Why are local health statistics important?

What does our community look like? What are the needs in our community? What is the health status of our community? These are questions that can be answered by analyzing health

Chapter 12

Google Maps Mashups for Local Public Health Service Planning

Maurizio Gibin, Pablo Mateos, Jakob Petersen and Phil Atkinson



Association between neighbourhood fast-food and full-service restaurant density and body mass index: A cross-sectional study of Canadian adults

Simon Hollands, M. Karen Campbell, Jason Gilliland, Sisira Sarma

Abstract

OBJECTIVE: Frequent fast-food consumption is a well-known risk factor for obesity. This study sought to determine whether the availability of fast-food restaurants has an influence on body mass index (BMI).

METHODS: BMI and individual-level confounding variables were obtained from the 2007-08 Canadian Community Health Survey. Neighbourhood socio-demographic variables were acquired from the 2006 Canadian Census. The geographic locations of all restaurants in Canada were assembled from a validated business registry database. The density of fast-food, full-service and non-chain restaurants per 10,000 individuals was calculated for respondents' forward sortation area. Multivariable regression analyses were conducted to analyze the association between restaurant density and BMI.



DineSafe

MIDDLESEX-LONDON

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Glossary Of Terms
Food Safety Training
Food Premises Regulation
Enforcement Activities



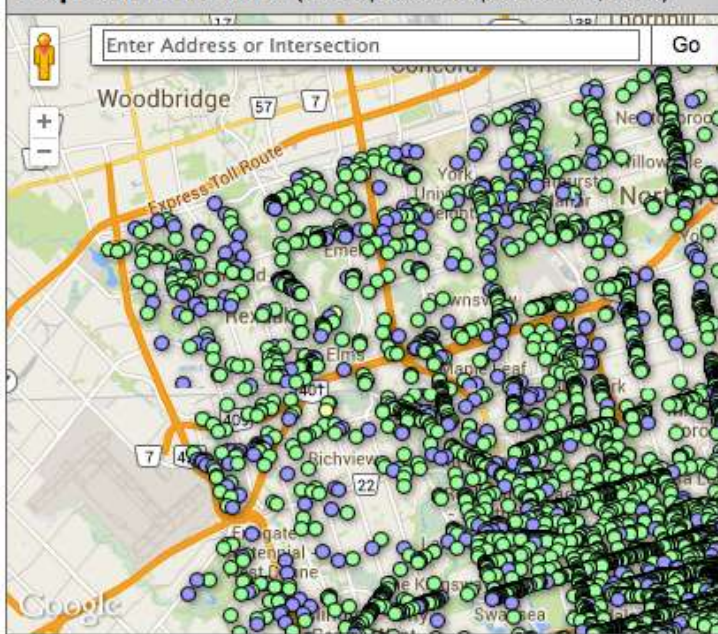
Choose a Location: All Regions First Letter Type a Keyword Search

Establishment	Address	City	Inspection Date	Number of Infractions	
				Critical	Non-Critical
Union Burger	275 Caradoc St S	Strathroy	4/4/2014	0	0
Union Burger	5 - 1422 Fanshawe Pk Rd W	London	2/5/2014	0	0

Establishment

Name: Union Burger
Address: 5 - 1422 Fanshawe Pk Rd W
City: London
Province: ON
Phone: (519) 474-6736
Map: [Click Here](#)

Inspection Results (Last Updated: September 24, 2014)



1. Union Burger

★★★★☆ 7 reviews

Burgers

1965-1985 Hyde Park Road
London, ON N6G 0A4
Canada
(519) 474-6736



Best burger in London! Can't go wrong for a burger fires and a beer for \$9.99. The onion rings are the best I ever had.



Savvy Diner: Can't Tell By Looking

Toronto Public Health - 17 videos

Subscribe 20

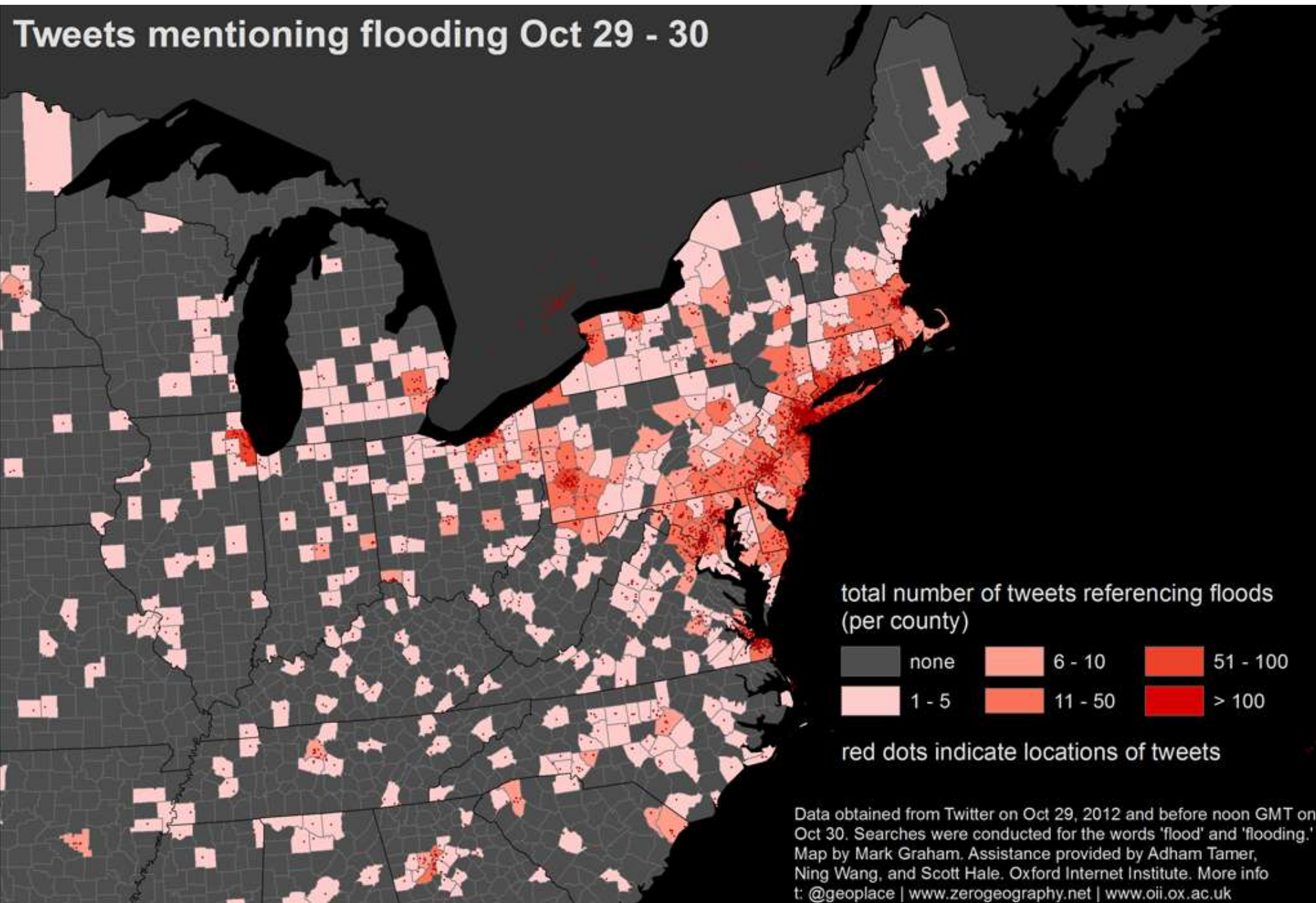
2,753

Map data ©2014 Google

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[Report a map error](#)

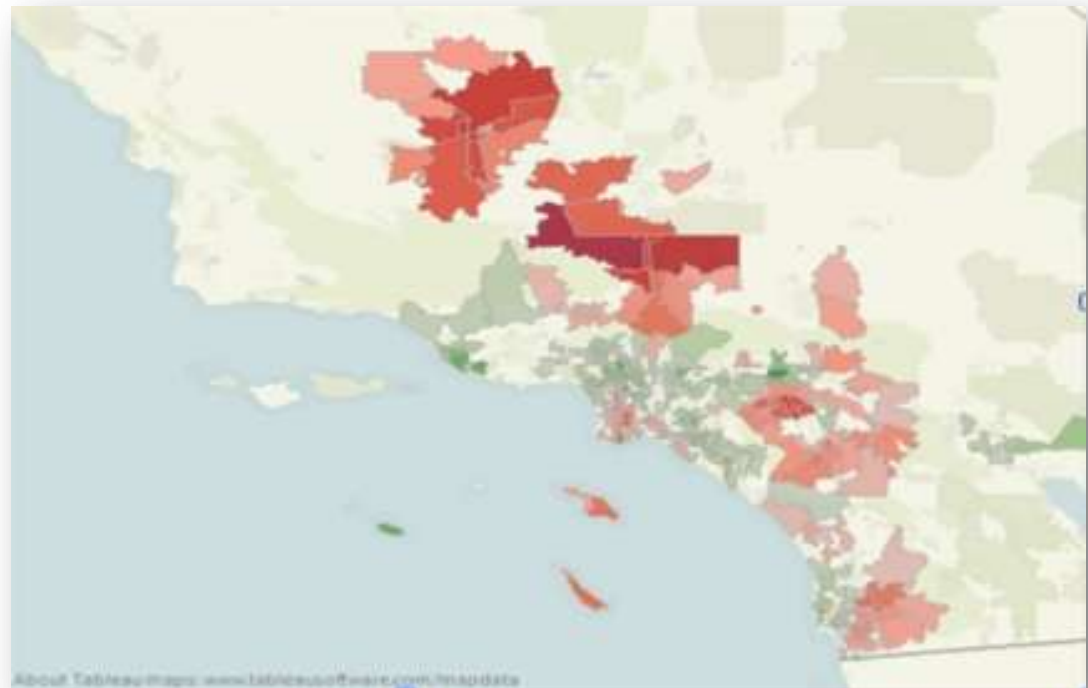
Tweets mentioning flooding Oct 29 - 30



1. Link geographic areas with greater than expected asthma prevalence (i.e., higher ozone levels for extended periods during the summer)
2. 17% of the asthma patients do not show up to the pharmacy to pick up prescribed medications
3. Subsequently, 13% more likely to have an asthma related hospitalization

Kaiser Code-a-Thon,
September 2013

“We were allowed to have only five people in the room at any given time”



“From a 'Hey, let's do this' idea to 'fully-funded with 67.8 Million DOGE' in 8 Days” -[GoodShibe](#)



Josh Wise ✓
@Josh_Wise

Follow

Wow thanks for the support! Let's make it happen 👍 RT @Denis_Pavel: @Josh_Wise The Dogecoin Community and I are fundraising to sponsor you!

Reply Retweet Favorite More

RETWEETS

38

FAVORITES

34



2:29 PM - 17 Mar 2014



\$55,000 raised, in a week



Dogecoin Foundation to Raise \$50k for Kenya's Water Crisis

Pete Rizzo (@pete_rizzo_) | Published on March 11, 2014 at 21:32 GMT | Altcoins, Dogecoin

Tweet 281 Share 101 +1 26 287 points

UPDATE (17th March, 12:35 GMT): A \$10,000 tweet, which many are calling 'the [most valuable](#) in history', has sent the [Doge4Water](#) fundraising campaign [£40,000,000](#) goal using Twitter's dogecoin tip bot.



Hood

@savethemhood

Follow

@tipdoge tip @Doge4water 14000000 may we all drink water. let the wealthy fill your cup. #savethemhood

9:23 PM - 15 Mar 2014

687 RETWEETS 419 FAVORITES



OLYMPICS

Jamaican Bobsledders Ride Dogecoin Into Olympics

"The first ever \$10,000 tweet demonstrates the power of digital currency and social media to make the world a better place"

- Jackson Palmer, dogecoin founder



[End the stigma](#)

[Our initiatives](#)

[The impact](#)

[News & events](#)

Thank you for talking about mental health!

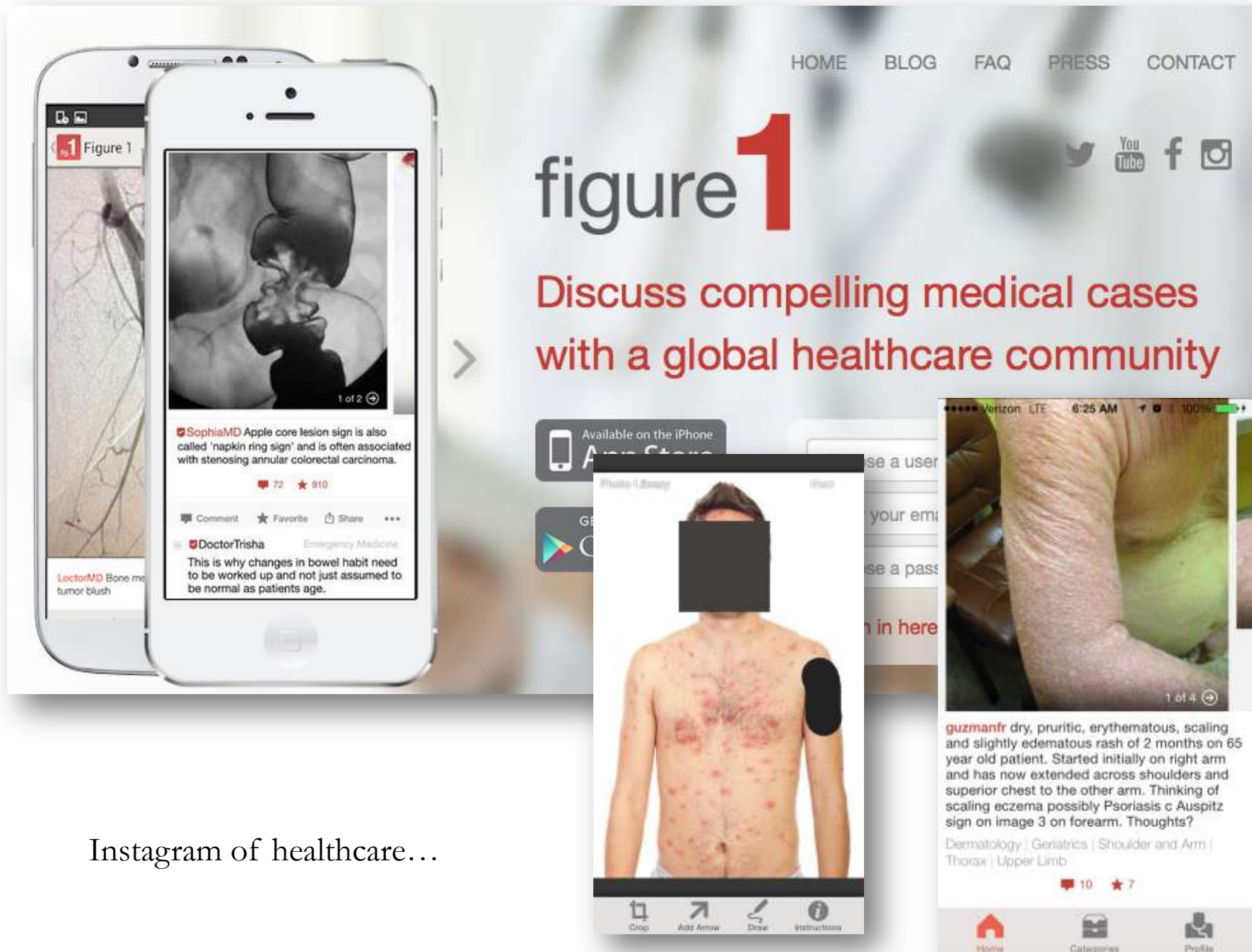
On Bell Let's Talk Day, you really helped
break the stigma around mental health.

TOGETHER WE'VE RAISED

\$5,472,585

109,451,718 TEXT MESSAGES, MOBILE
AND LONG DISTANCE CALLS, TWEETS,
AND FACEBOOK SHARES.

#BellLetsTalk 



Instagram of healthcare...

Forum


Welcome to the Forum. Pick a category to join the conversation.

This is the place to ask questions and discuss topics related to your health with everyone in the PatientsLikeMe community.

Search the Forum

Search

Please review our
Forum Code of Conduct ▼

 Would you like to join more discussions? [See more Forum Rooms ▶](#)

My Condition Rooms: Talk to others about conditions that matter to you

View » Skin, Hair and Nails (You're a Patient)

4694 members
189 posts
24 topics

Most Recent Topics (*Unread and Updated Topics*)

surgery-bumps on head about 20 hours ago

Breast cancer , Thyroid cancer from lupus. 1 day ago

Hair Loss 1 day ago

M



nature biotechnology

nature.com • journal home • archive • issue • computational biology • analysis • abstract

NATURE BIOTECHNOLOGY | COMPUTATIONAL BIOLOGY | ANALYSIS

Accelerated clinical discovery using self-reported patient data collected online and a patient-matching algorithm

Paul Wicks, Timothy E Vaughan, Michael P Massagli & James Heywood

Affiliations | **Contributions** | **Corresponding author**

Nature Biotechnology 29, 411–414 (2011) | doi:10.1038/nbt.1837
Received 02 April 2010 | Accepted 10 March 2011 | Published online 24 April 2011

Abstract

Patients with serious diseases may experiment with drugs that have not received regulatory approval. Online patient communities structured around quantitative outcome data have the potential to provide an observational environment to monitor such drug usage and its consequences. Here we describe an analysis of data reported on the website PatientsLikeMe by patients with amyotrophic lateral sclerosis (ALS) who experimented with lithium carbonate treatment. To reduce potential bias owing to lack of randomization, we developed an algorithm to match 149 treated patients to 149 controls (147 total) based on the progression of their disease course.

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Science jobs from nature jobs

Postdoctoral computational and experimental molecular biology/protein structure design
Los Alamos National Laboratory

Senior Scientist in Biostatistics / Epidemiology
Needle Institute of Health Sciences

Basic Scientist, Assistant Associate, at

PatientsLikeMe Room: Talk to everyone in the PatientsLikeMe community

View » PatientsLikeMe

138445 members
8592 posts
1066 topics

Most Recent Topics (*Unread and Updated Topics*)

Obesity almost killed me!! SO I TOOK THE STAND !! and i am winning !! about 2 hours ago

Planning goals about 2 hours ago

Hi about 3 hours ago

Most Recent Tags:  Fibromyalgia  welcome new member  Crohn's Disease
 ulcerative colitis  Psoriasis

View » Technical Help Using PatientsLikeMe

138445 members
1507 posts
271 topics

Most Recent Topics (*Unread and Updated Topics*)

Weird Glitch about 6 hours ago

Lab units not saving properly 1 day ago

“While not a replacement for the gold standard double blind clinical trial, our platform can provide supplementary data to support effective decision-making in medicine and discovery”

welcome to you

Find out what your DNA says about you and your family.

Trace your lineage back 10,000 years and discover your history from over 750 maternal lineages and over 500 paternal lineages.

order now \$99

CureTogether

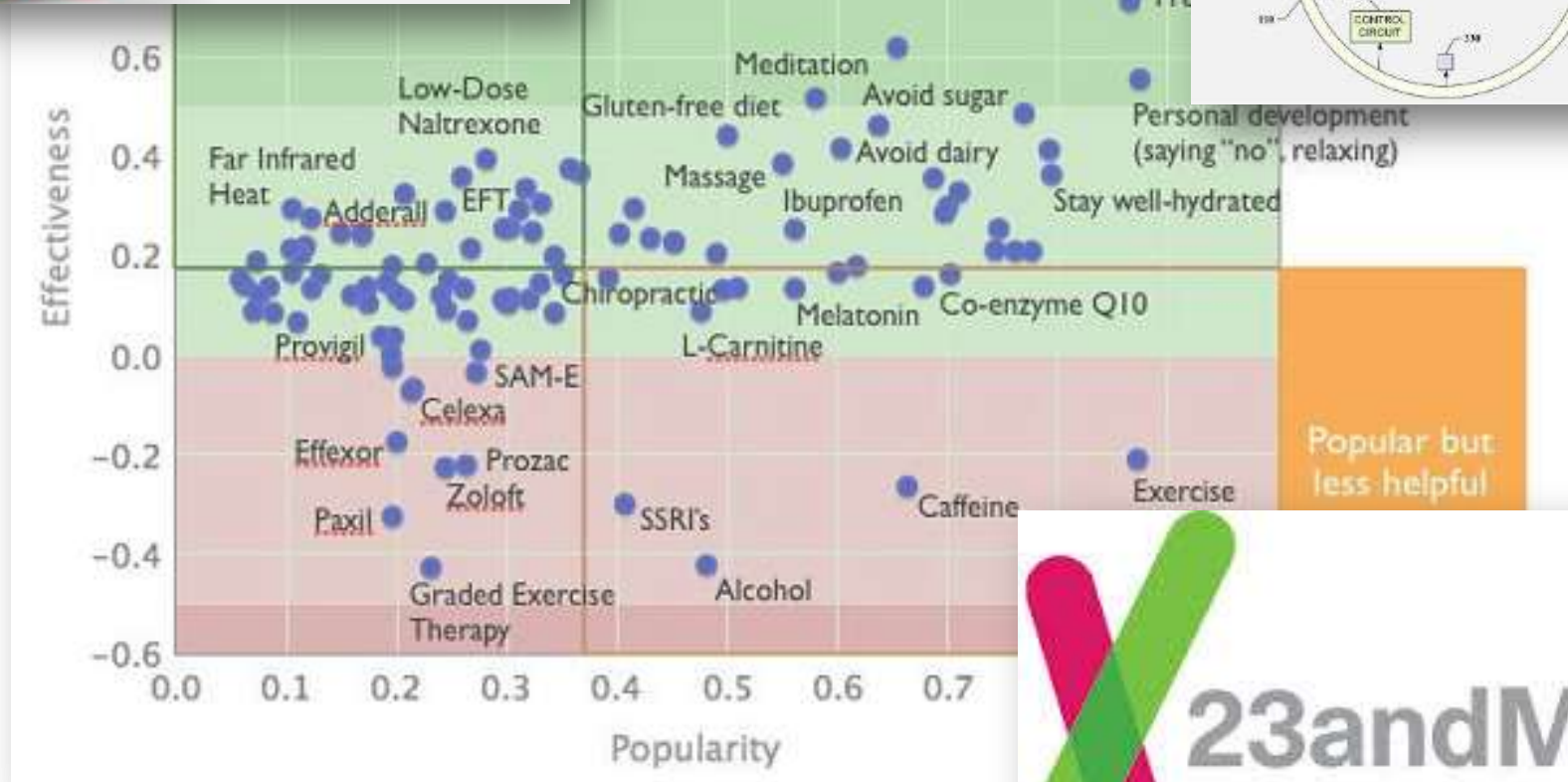
106 Chronic Fatigue Treatments

Google Invention Covers a Multi-Sensor Contact Lens

FIG. 2A

PATENT BOLT

Sensor 232 could be photodiode that changes state based upon the amount of light it receives.



23andMe

23andMe Parkinson's Community | Strength in numbers

learn more

WHY IS NOT JUST
A QUESTION.
IT'S OUR QUEST.

READ MORE >

#WHOISYOURWHY

WHY
IS IN
OUR
DNA.

PRINCESS MARGARET CANCER CENTRE LEADING THE WAY IN PERSONALIZED CANCER MEDICINE

Google Wants to Store Your Genome

For \$25 a year, Google will keep a copy of any genome in the cloud.

By Antonio Regalado on November 6, 2014

Genomics

g+1

59

What is Google Genomics?

▼ Pricing and Quotas

Pricing

Quotas

What Is Google Genomics?

Google Genomics provides an API to store, process, explore, and share DNA sequence data, using Google's cloud infrastructure.



FORBES 1/23/2013 @ 7:00AM | 288,626 views

Airbnb And The Unstoppable Rise Of The Share Economy

This story appears in the February 11, 2013 issue of Forbes.

The Economist

World politics

Business & finance

Economics

Science &

Free exchange

Pricing the surge

The microeconomics of Uber's attempt to revolutionise taxi markets

Mar 29th 2014 | From the print edition

Timekeeper

f Like

144

Computer Programs Are People, Too

How treating smart programs as legal persons could change privacy as we know it.

Samir Chopra May 29, 2014

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Bell Let'sTalk

End the stigma

Our initiatives

The impact

News & events

Thank you for talking about mental health!

TOGETHER WE'VE RAISED

\$5,472,585

On Bell Let's Talk Day, you really helped break the stigma around mental health.

109,451,718 TEXT MESSAGES, MOBILE AND LONG DISTANCE CALLS, TWEETS, AND FACEBOOK SHARES.

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How practical is Google's driverless car?

Beep, beep. Car, which currently reaches only 40 km/h, faces many legal, regulatory hurdles

By Andre Mayer, CBC News Posted: May 29, 2014 6:07 PM ET | Last Updated: May 30, 2014 8:18 AM ET



Main thesis:

Machines don't need to be perfect – they just need to be better than humans

In many cases, they already are

The Terminator: The Skynet Funding Bill is passed. The system goes on-line August 4th, 1997. Human decisions are removed from strategic defense. Skynet begins to learn at a geometric rate. It becomes self-aware at 2:14 a.m. Eastern time, August 29th. In a panic, they try to pull the plug.

Sarah Connor: Skynet fights back.



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AMAZON

March 30, 2018 1:32 pm

Updated: March 30, 2018 3:19 pm

Amazon tests delivery drones at a secret location in B.C.: report



By Yuliya Talmazan

Web Producer, Global News

Comments 10 Facebook 1.3k Twitter 65 Email Print ...



engadget

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The first self-driving big rig licensed to operate in the US

by Mariella Moon | @mariella_moon 110 hrs ago



FEATURED STORES



Hugo Barra on why Xiaomi microSD cards in phones

2 hours ago

Apple may be under FTC investigation over Beats deals

7 hours ago

The Nintendo studio behind 'Kirby's Dream Land' is working on a new game 'BOXBOY!'



Doctor Evidence to contribute valuable clinical data to IBM Watson's oncology solutions, developer ecosystem

Published on May 30, 2015 at 7:40 AM · No Comments

To date, IBM's Watson for Oncology solution has ingested nearly 15 million pages of medical content, including over 200 medical textbooks and 300 medical journals. Doctor Evidence brings more than a decade of experience in rigorous evidence-based medical methodologies and technologies to the Watson Ecosystem. The organization will

ROBERT MCMILLAN 02.06.15 6:30 AM

WE CAN NOW BUILD AUTONOMOUS KILLING MACHINES. AND THAT'S A VERY, VERY BAD IDEA

autonomous. That worries him. A lot. “The potential for lethal autonomous weapons systems to be rolled off the assembly line is here right now,” he says, “but the potential for lethal autonomous weapons systems to be deployed in an ethical way or to be designed in an ethical way is not, and is nowhere near ready.”

Whoa Richard...

That's some serious tinfoil hat stuff there... a lot of that stuff sounds scary

I'm going to stick with CPOE, EMRs, data standards, and portals... you know. The *traditional* informatics stuff.



Recall our previous discussion about feeling unsettled and failing to evolve *process*?

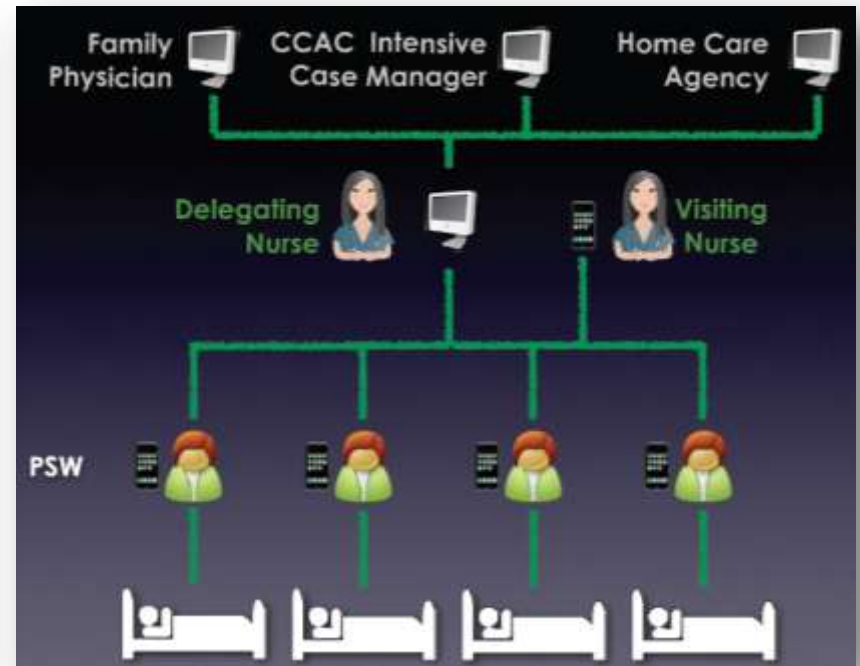


Exploring the different
processes

-

With computers to do most of what nurses now do, what unique service will the professional nurse provide? As a result of increasing computerized care and as the division of labor shifts, roles of necessity will change. The gap created by the shortage of physicians will offer the nursing profession two choices: extinction, or the opportunity to provide new dimensions of patient care. If nursing accepts the latter opportunity, a new concept of nursing care will emerge: one that will require a redefinition and revision of how nurses are to be prepared and how they are to practice in the future. If nursing reneges, it will be replaced by the computer and paramedicals will fill the nurse-related roles.

Point of care technology, redux (sans nurse)



Removing nurses from the patient-care experience, or, evolving the nursing role?

Care model evolution using over-the-counter technology – what's to say, social connectiveness won't be taken one step further?



Awareness is the first step

Excitement is the second

....closely followed by dissonance

- Nursing needs to move beyond its traditionally conceptualized and theorized role with technology
 - Health system navigation / coordination
 - Human-technical interface knowledge work
 - Legal, ethical, privacy
 - Advanced clinical and professional practice
 - Data analytics and algorithms of care
 - Lots more that I haven't had time/coffee to reflect upon yet

Informatics – the hanging lowest and most developed fruit – but, I question its longevity in its current form

Lots of change occurring within informatics (sort of)



social media
mobile technology
wearable technology
clinical and EMRs
nano-technology
biotechnology
data science

...the list goes on

care model evolution

remote/virtual care

human-technical interface

social media

mobile technology

advanced practice (technology)

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles.

— [International Council of Nurses](#)^[25]

virtual communities

patient navigator

nano-technology

clinical and EMRs

legal/ethical

data science

biotechnology

care model evolution

remote/virtual care

human-technical interface

social media

mobile technology

advanced practice (technology)

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patient navigator

virtual communities

nano-technology

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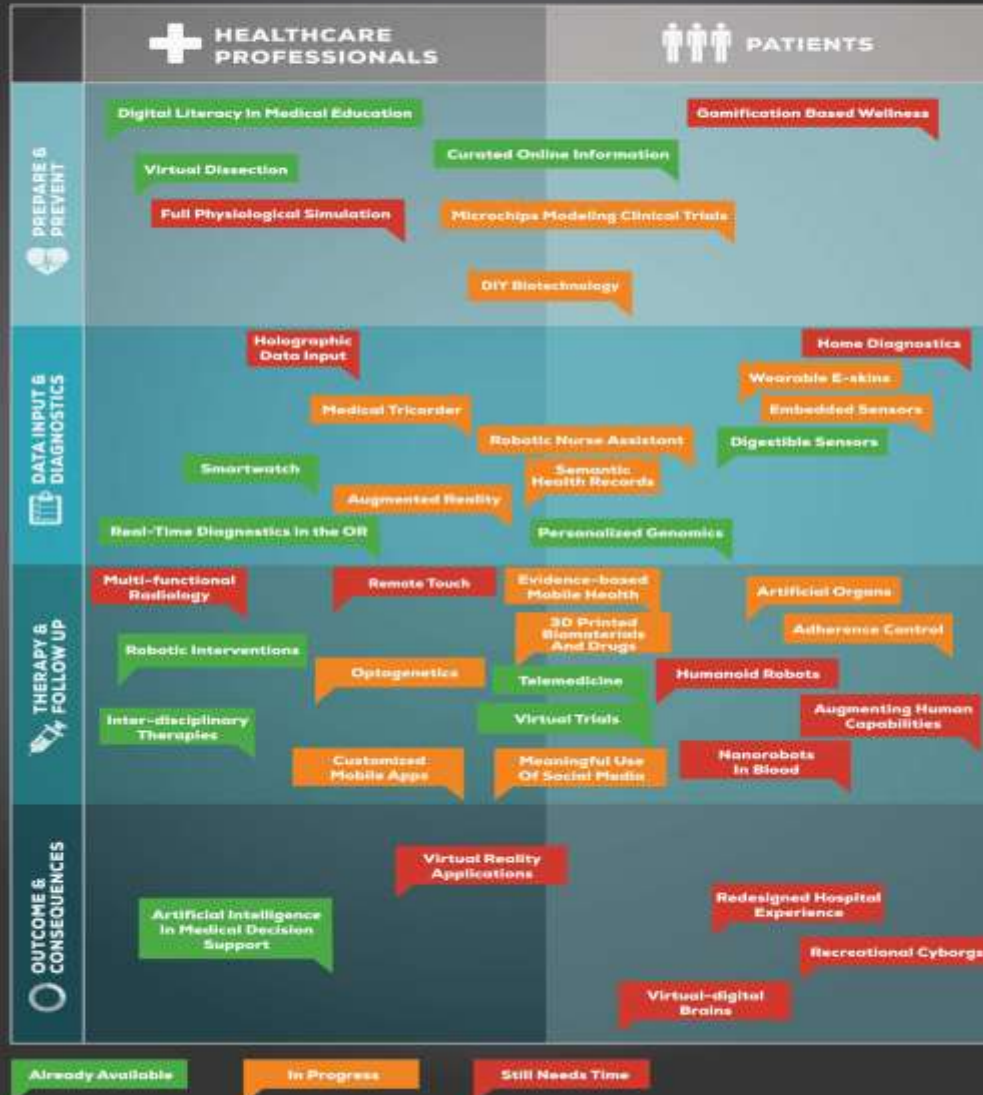


THE GUIDE TO THE FUTURE OF MEDICINE



By Bertalan Mesko, MD, PhD

MedicalFuturist.com



3 perspectives are added featuring the main trends that shape the future of medicine such as which stage of the delivery of healthcare and the practice of medicine is affected (prevent & prepare, data input & diagnostics, therapy & follow-up, and outcomes & consequences), whether it affects patients or healthcare professionals, and the practicability of it (already available - green, in progress - orange, and still needs time - red).

Remote touch?
DIY biotech
Robotic nurse
assistant
Wearables / trackables

You, your role, & informatics...



Chris Hadfield @Cmdr_Hadfield · 6 May 2013

Tonight's Finale: Our Sun is immensely, unfathomably powerful.

pic.twitter.com/j10CCpP6ya

↩ Reply ↻ Retweet ★ Favorite

Moving forward can be a paradigmatic shift.

It will hurt.

It will retire some mindsets and values – and likely, some established processes and roles. That will be hard.

We shouldn't be planning a profession for 2015 – we need to prepare it for 2035+, and it has to start now



The Telegraph

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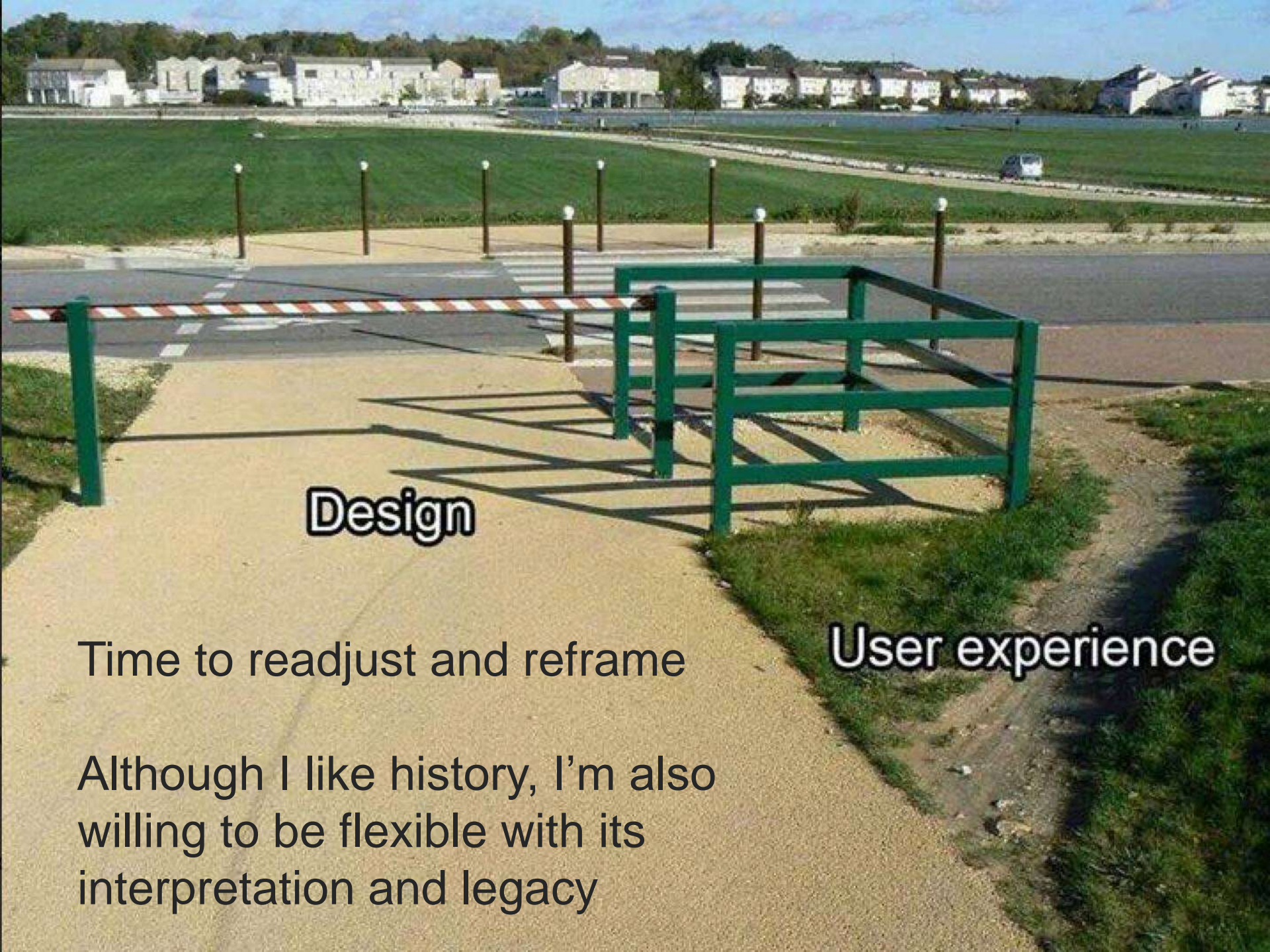
HOME » TECHNOLOGY » SOCIAL MEDIA

Facebook terms and conditions: why you don't own your online life

Did you read the terms when you joined Facebook, Twitter or LinkedIn? Oliver Smith explains how social networks effectively own your online content.

It has already begun....and
we're currently moving
sideways as a profession





Design

Time to readjust and reframe

Although I like history, I'm also willing to be flexible with its interpretation and legacy

User experience

So, if I'm wrong....

I'll come back to Halifax on October 20, 2037 and buy the round of beer (*I'm serious – I'll tweet it for the record)

We need to *focus* on health technology...

*

Because it is a reflection of
us...

Thankyou

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